LATTC CATALOG



2014-2016

Updated: December 2015

Celebrating 90 Years of Excellence!

LOS ANGELES TRADE-TECH
LATTC
A Community College

LOS ANGELES COMMUNITY COLLEGE DISTRICT OFFICE

770 Wilshire Blvd., Los Angeles, CA 90017
(213) 891-2000

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LOS ANGELES TRADE-TECHNICAL COLLEGE

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LOS ANGELES TRADE-TECH LATTC A Community College

Los Angeles Trade-Technical College

400 West Washington Boulevard
Los Angeles CA 90015-4181
Telephone (213) 763-7000
www.lattc.edu

Getting to
Los Angeles Trade-Technical College

- **FROM THE HARBOR FRWY. SOUTH**
  Exit Adams Blvd. to 23rd Street, turn left to Grand Ave., turn left to college
- **FROM THE SANTA MONICA FRWY. EAST**
  Exit on Grand Ave., turn right to college
- **ON THE BLUE LINE**
  Grand LATTC Station; for information, www.metro.net
- **ON THE METRO LINE**
  LATTC Ortho Institute Station; for information, www.metro.net
- **FROM THE SANTA MONICA FRWY. WEST**
  Exit on Los Angeles Street to 17th Street, turn left on Grand Ave., to college
- **FROM THE HARBOR FRWY. NORTH**
  Exit on Adams Blvd., turn right to Grand Ave. and left to college



Produced by the Office of Academic Affairs

LOS ANGELES TRADE-TECHNICAL COLLEGE

2014 - 2016
GENERAL CATALOG

December 2015

Los Angeles Trade-Technical College
400 West Washington Boulevard
Los Angeles, California 90015
(213) 763-7000

www.lattc.edu

Los Angeles Trade-Technical College is a public tax-supported educational institution which offers learning opportunities for men and women and is administered by the Los Angeles Community College District.

Accreditation

Los Angeles Trade-Technical College is accredited by the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges, 10 Commercial Boulevard, Suite 204, Novato, CA 94949 (405) 506-0234, an institutional accrediting body recognized by the Commission on Higher Education Accreditation and the U.S. Department of Education.

GREETINGS FROM THE PRESIDENT

Welcome to Los Angeles Trade-Technical College.



I am so excited that you have selected Los Angeles Trade-Technical College (LATTC) to further your education. This college has so much to offer you. We provide the type of education and training that leads directly to a career pathway in high-demand industries or a transfer pathway to a four-year institution. If you combine that with Trade Tech's reputation for providing the very best in career-technical education, you have a great chance of securing a career that will be transformational to your lives and the lives of your family.

Please take the time to review all that we have to offer with regard to programs, training, and student services. This entire college is geared toward student success - your success - so we want to make sure that your Trade Tech experience is everything you want it to be. Take advantage of all support services available to you, including Academic Connections, tutoring and the Associated Student Organization (ASO).

This is an exciting time to be entering LATTC because we are in the midst of modernizing and expanding our campus, the establishment of a new WorkSource Center and the re-engineering of our enrollment process.

We have so much to offer you. Thanks again for choosing the best community college around…and welcome to LATTC!

Laurence B. Frank
President
Los Angeles Trade-Technical College

LOS ANGELES TRADE-TECHNICAL COLLEGE

RESPONSIBILITY TO BE INFORMED

It is the student's responsibility to read the information presented in this catalog and to know and observe all policies and procedures related to his/her program. Regulations will not be waived nor exceptions granted because a student pleads ignorance of policies, procedures, or deadlines.

2015-2016 ACADEMIC CALENDAR

FALL SEMESTER 2015

Labor Day	September 7, 2015
Fall semester begins	August 31, 2015
Saturday classes begin	September 5, 2015
Last day to apply for graduation for students completing in Fall 2015. Late application will be processed in Winter 2016	Oct. 9, 2015
Veterans Day (College closed)	November 11, 2015
Thanksgiving Holidays (College closed)	November 26-29, 2015
Final examination period	December 14 – 20, 2015
Fall semester ends	December 20, 2015

WINTER INTERSESSION 2016

Winter intersession begins	January 4, 2016
Martin Luther King's Day (College closed)	January 18, 2016
Winter intersession ends	February 7, 2016

SPRING SEMESTER 2016

Spring semester begins	February 8, 2016
Saturday classes begin	February 20, 2016
President's Day (College closed)	February 12 – 15, 2016
Cesar Chavez Day (College closed)	March 31, 2016
Spring recess	April 1 – 8, 2016
Memorial Day (College closed)	May 30, 2016
Final examination period	May 31 – June 6, 2016
Spring semester ends	June 6, 2016

SUMMER SESSION 2016

Summer intersession begins	June 13, 2016
Independence Day (College closed)	July 4, 2016
Summer intersession ends	August 28, 2016

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LATTC Department Organization

Department & Disciplines	Chairperson & E-mail	Phone / Office
ACADEMIC CONNECTIONS • Basic Skills • Computer Applications & Office Technology • ESL – Noncredit • Office Machines • Supervised Learning Assistance	**Christina Anketell** AnketeCP@lattc.edu	**213-763-3741** MA 109A
ADVANCED TRANSPORTATION AND MANUFACTURING • Automotive And Related Technology • Automotive Collision Repair • Diesel And Related Technology • Electronics • Electronics Technology • Machine Shop - CNC • Microcomputer Technician • Motorcycle Repair Mechanic • Welding (Manufacturing Welding)	**Jesus (Jess) Guerra** GuerraJ@latt.cedu	**213-763-3919** F-114A
APPRENTICESHIP • Electrical Lineman – Apprenticeship	**William (Bill) Elarton** cdm@lattc.edu	**213-763-3700** SQ-122
ATHLETICS • Athletics	**Richard Wells** WellsRL@lattc.edu	**213-763-3737** WH-202a
BEHAVIORAL/SOCIAL SCIENCES/ CHILD DEVELOPMENT • Administration of Justice • Anthropology • Child Development • Economics • Education • Geography • History • Law • Paralegal • Political Science • Psychology • Sociology	**Freddie McClain** McClaiF@lattc.edu	**213-763-3936** AH-516
BUSINESS AND ENTREPRENEURIAL RELATED PROGRAMS • Accounting • Business • Management • Marketing • Public Relations • Real Estate • Retail Management • Supervision	**Benjamin Goldstein** GoldstBD@lattc.edu	**213-763-7051** JH-519
CONSTRUCTION, MAINTENANCE & UTILITIES • Architecture Interiors • Architecture • Building Construction Techniques • Carpentry • Drafting • Electrical Construction & Maintenance • Electrical Lineman - Non Apprentice Engineer-Operation/Maintenance • Plumbing • Refrigeration & Air Conditioning Mechanics • Street Maintenance • Welding Gas and Electric • Solid Waste Management Technology • Supply Water Technology • Wastewater Technology	**William (Bill) Elarton** cdm@lattc.edu	**213-763-3700** SQ-122
COOPERATIVE WORK EXPERIENCE EDUCATION • Cooperative Education	**Carole Anderson** AndersCL@lattc.edu	**213-763-3640** CY-222
COUNSELING • Counseling	**Thomas Dawkins** DawkinTL@lattc.edu	**213-763-7361** JH-416
COSMETOLOGY • Barbering • Cosmetology • Skin Therapy	**Elton Robinson** RobinsEJ@lattc.edu	**213-763-7138** MH-130

Department & Disciplines	Chairperson & E-mail	Phone / Office
CULINARY ARTS/PROFESSIONAL BAKING • Baking, Professional • Culinary Arts • Restaurant Management	**Steven Kasmar** KasmarSL@lattc.edu	**213-763-7332** SA-117
DESIGN AND MEDIA ARTS • Computer Information Systems • Digital Media • Fashion Design • Fashion Merchandising • Sign Graphics • Tailoring • Visual Communications	**Carole Anderson** AndersCL@lattc.edu	**213-763-3640** CY-222
ENGLISH • English • English As A Second Language	**Janice Gangel-Vasquez** GangelJM@lattc.edu	**213-763-3739** AH-515
HEALTH AND EXERCISE SCIENCES • Health • Health Occupations • Kinesiology • Kinesiology (Non-Activity) • Nursing, Registered	**Joe Ratcliff** RatcliJE@lattc.edu	**213-763-3730** WH/J 202a
LABOR CENTER • Labor Studies • Community Planning/Economic Development	**John McDowell** McdoweJR@lattc.edu	**213-763-7130** LA-117
LANGUAGE ARTS & HUMANITIES • American Sign Language • Art • Communication Studies • French • Humanities • Music • Philosophy • Spanish • Theater	**John Glavan** GlavanJJ@lattc.edu	**213-763-3931** AH-520
LIBRARY SCIENCE • Library Science	**Judith Samuel** SamuelJC@lattc.edu	**213-763-3959** LA-117
MATHEMATICS • Mathematics	**Tayebeh Meftagh** MurphyMM@lattc.edu	**213-763-7319** AH-506
SCIENCES • Astronomy • Biology • Biotechnology • Chemical Technology • Chemistry • Geography • Geology • Microbiology • Physics • Process Plant Technology	**Dr. Miguel A Moreno** MorenoMA@lattc.edu	**213-763-7322** CH-405

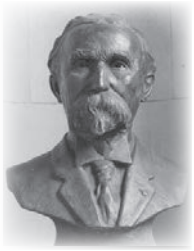


TRADE TECH: A PROUD HISTORY

Los Angeles Trade-Technical College (LATTC) has been proud to serve the greater Los Angeles community for more than 90 years.

Our history began shortly after the close of World War I, when members of the Los Angeles Board of Education, the Chamber of Commerce, and business and labor leaders held a series of conferences to talk about the need in Los Angeles for a centralized vocational training program. Out of those meetings came the initial concept of what would become Trade Tech, modeled on a class in power sewing offered to downtown garment workers. By the end of 1924, training programs in "beauty culture", printing, plumbing, and the building trades were offered at various locations around the city and briefly consolidated in a soon-to-be outgrown building located at Eighth and Grand Avenues.

In the early Spring of 1925, the Los Angeles Board of Education created the Frank Wiggins Trade School, naming it after a prominent Los Angeles Chamber of Commerce member who had been a driving force in promoting the development of vocation training. The school relocated to a new building at 1646 South Olive Street in 1926, and through the ensuing years gained a reputation for the success of its graduates in industrial careers as well as the dedication of its faculty and staff.



Frank Wiggins, whose original vision helped create Trade Tech



During WWII, thousands of "Rosie the Riveters" enrolled at Trade Tech, lending their skills to support the war effort.

The advent of World War II created an exponential demand for the college's training programs in support of the war effort. The college's Aircraft and Welding Trades departments operated directly under the supervision of the federal War Production Training Program, while the majority of other programs were quickly reformatted to provide short-term training of six to ten weeks in duration, often at war production plants located throughout the city.

The end of the war and the return to a civilian economy, together with the infusion of federal funds for training veterans, led to an expanded demand for education and training at the college. In July of 1948, in response to veteran's retraining needs as well as Los Angeles' post-war population boom, the college was granted the authority to expand their curriculum and offer an Associate in Arts degree in vocational disciplines as well as academic and Liberal Arts areas.

LATTC moved to its current location in 1957. In 1966, an existing educational institution with a strong business program, Metropolitan College, was merged with Trade Tech, resulting in an even broader range of educational offerings. Finally, in 1969, LATTC joined the newly formed Los Angeles Community College District (LACCD), making LATTC one of the nine colleges that comprise the District.

Trade Tech occupies a unique position among institutions of higher education. Throughout nine decades, the college has remained true to its founding premise of vocational education, while expanding to provide transfer programs, adapt to rapidly changing technologies and remain responsive to the needs of the surrounding community. Students come from all over the Los Angeles basin to participate in our unique mix of programs, some of which have been in existence since the school's inception. As of Fall 2002, the campus has undergone massive renovation and building programs under the auspices of Proposition A, AA, and J bond funds, and we look forward to serving our community for another 90 years.

1. General Information

MISSION STATEMENT AND VISION

Our Mission

We provide our students and community with high-quality academic, technical, and professional educational opportunities that:

- Meet their career development and academic goals;
- Foster a climate of life-long learning;
- Prepare our students to participate effectively in our society; and
- Generate economic development with our educational, governmental, community and business partners.

Our Vision

LATTC will be a global leader known for effectively incorporating leading-edge theories, proven educational practices, hands-on experiences, and technology into our career-technical and professional programs, as well as transfer pathways. LATTC graduates will be in high demand. Many will become community, business and innovation leaders.

To achieve our vision:

- We will be known for our experimentation with new ideas and innovations to improve student success.
- We know that a single positive experience – a course, a program, a service, or a person who cares – can be transformational for a student.
- We are re-engineering our institutional practices, so we can take our college to a new level – a national and international leader in meeting students' needs, particularly those facing socio-economic challenges.

LATTC Core Competencies – Institutional Learning Outcomes

Los Angeles Trade-Technical College students who have completed their designated coursework should expect to have gained competency in the following areas:

- Students will use critical thinking skills to gather, identify, analyze, synthesize information, and evaluate problems and solutions
- Students will use visual, numerical, verbal, written, and practical skills to create useful and original products
- Students will demonstrate technical skills that meet industry and/or employment standards
- Students will demonstrate effective communication and comprehension skills
- Students will demonstrate ability to interface in a culturally diverse socio-economic environment



CODE OF ETHICAL CONDUCT

Los Angeles Trade-Technical College is committed to compliance with the law and regulations governing the college, as well as the policies and procedures established by the college. In order to encourage ethical conduct and strengthen and promote ethical practices among college employees, members of the college community, and those who conduct business with the college, LATTC has adopted this Code of Ethical Conduct:

LATTC employees shall:

- Uphold the highest standards of intellectual honesty and academic, professional, and personal integrity in the conduct of instruction, research, college services, and all other functions of the college.
- Act in a way that promotes healthy working relationships based on mutual trust and support among one's fellow employees.
- Abstain from knowingly making slanderous and libelous statements against colleagues while upholding the principles of freedom of speech.
- Act as good stewards of the resources and information entrusted to our care.
- Perform assigned duties and professional responsibilities in such a manner so as to further the college mission.
- Treat fellow employees, students, and the public with dignity and respect.
- Comply with laws, rules, regulations, and professional standards that prohibit discrimination against, harassment of, or threats to others.
- Respect the intellectual property rights of others.
- Respect differences of opinion and approaches to issues and problems.
- Avoid improper political activities as defined in law.
- Protect human health and safety and the environment in all LATTC operations and activities.
- Refrain from using our employment to improperly advance the interests of a friend or relative and comply with nepotism policies as defined in Board Rule 10108.
- Comply with conflict of interest codes as defined in Board Rule 14000.

COLLEGE ADVISORY COMMITTEES

The demands of industry determine the various phases of business, technical and trade training carried on by the college. Placement and successful progress of students are the measures of effectiveness of the pre-employment training. Increased productivity, job satisfaction, and advancement of the employed trainee attest to the effectiveness of the program. For these reasons all training is developed and carried on with the advice and assistance of the college advisory committees.

Membership in each of the groups is composed of community-wide representatives from labor and management, and from federal, state and local agencies who are concerned with the business, trade and technical programs offered. These advisory committees meet on the invitation of the college administration at least once a year and on additional occasions when considered necessary. They give counsel and advice in regard to evaluating training programs, approve plans to meet current training needs, review past accomplishments, and forecast trends affecting training and employment.
Members of the various advisory committees are an important part of the educational program of the college. The people who serve on the committees are selected because of their leadership in the economic life of Los Angeles. The advisors bring to the college expert advice and sound thinking on business, trade and technical problems. Thus the work of the classroom reflects the rapid changes in community and industry.

ACCREDITATION

Los Angeles Trade-Technical College, a California public, tax-supported community college, is officially accredited by the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges and is fully approved by the Board of Governors of the California State University and independent colleges and universities to give full credit for appropriate courses completed. Specific programs are also accredited by the American Culinary Federation Education Foundation Accrediting Commission (ACFEFAC); Interstate Renewable Energy Council (IREC); and National Automotive Technicians Education Foundation (NATEF)

ACCURACY STATEMENT

The Los Angeles Community College District and Los Angeles Trade-Technical College have made every effort to make this catalog accurate and may, without notice, change general information, courses, or programs offered. The reasons for change may include student enrollment, level of funding, or other issues decided by the district or college. The district and college also reserve the right to add, change, or cancel any rules, regulations, policies and procedures as provided by law.

ABOUT THE LOS ANGELES COMMUNITY COLLEGE DISTRICT (LACCD)

EDUCATIONAL PHILOSOPHY OF LACCD

The Los Angeles Community Colleges affirm the principle that individuals should have opportunities to develop to their full potential. To that end, our main responsibility is to students and to the provision of education, which benefits students and enables them to contribute to society.

Our colleges, therefore, should be accessible to all individuals who have the capacity and motivation to benefit from higher education. Curricula and services of our colleges should provide means for fulfilling the promise of open access.

We recognize the necessity to adapt to the changing educational needs of the Los Angeles Community Colleges' communities and to the growing diversity among students. The quality of the educational experience is to be judged by its value to students and communities, not merely by quantitative appeal. We further recognize that academic freedom is essential to excellence in education.

FUNCTIONS OF THE LOS ANGELES COMMUNITY COLLEGE DISTRICT

Consistent with the educational philosophy and mission of the Los Angeles Community Colleges, Los Angeles Trade-Technical College offers the following types of educational programs and services:

- **Transfer. A college transfer program which enables the student who completes two years of study to continue upper division (third year) work at accredited four-year colleges and universities through careful and continuous articulation with accredited collegiate institutions and high schools.**
- **Career-Technical. Career-technical education offers students, a business, technical, and professional curricula to develop skills which can lead to employment, job advancement, certification, or the associate degree.**
- **General Education. A program of general education comprised of associate degree programs and other planned experiences which develop knowledge, skills, and aptitudes necessary for the student to be effective as a person, a family member, a worker, and a citizen, thereby enhancing the quality of life for the individual and for the society-at-large.**
- **Transitional Education. A program of remedial and basic skills education for students needing preparation for community college level courses and programs; and English as a Second Language instruction for other students with limited English proficiency.**
- **Counseling and Guidance. A counseling and guidance program incorporating academic, career, and personal counseling and assistance in matters of admissions, financial aid, job placement and student activities; to assist the student in the establishment of educational goals and in the selection and pursuit of a life work compatible with his or her interests, aptitudes, and abilities.**
- **Continuing Education. A program of continuing education comprised of graded and un-graded classes to provide opportunities for personal and occupational competence that supplement formal full-time college attendance.**
- **Joint Programs. Joint programs with business, industry, labor, education, government and other institutions which are of mutual benefit to sponsoring institutions, enhance the educational opportunities of program participants, and advance the mission and functions of the District.**

MISSION STATEMENT OF THE LACCD

"Changing Lives in a Changing Los Angeles"

In an era of civic renewal, economic change, and cultural revitalization that is unprecedented in the history of Los Angeles, we--the faculty, staff, and administrators of the nine Los Angeles community colleges--dedicate ourselves to the goal of expanding access to educational opportunity across the many, diverse communities that contribute to the greater Los Angeles area.

We serve all of Los Angeles by providing an unparalleled array of educational offerings, including programs that prepare students for successful careers, for transfer to four-year colleges and universities, for the improvement of essential life and workplace skills, and for civic engagement and life-long learning.

To achieve this mission, we strive to create supportive instructional environments that challenge students to meet rigorous academic standards, to become active, self-directed learners, to develop critical and creative habits of mind, and to develop an abiding appreciation for varied cultures and experiences.

District Guiding Principles...

Access & Opportunity--We are committed to expanding educational opportunity and access to everyone who has the desire to learn, and we welcome all students, including those from communities that have been traditionally underserved.

Excellence & Innovation--In all of our services and institutional activities, we strive to create a culture of excellence and innovation, and we challenge our students to meet the highest educational standards.

Student Learning & Success--All of our institutional efforts and resources are dedicated to one central purpose--the support of our students as they work toward the achievement of their academic and professional goals.

Free Inquiry--We value the vigorous, critical and free exchange of ideas and opinions, and we work actively to create communities of mutual respect and shared concern that support and sustain open debate and constructive, democratic discourse.

The Power of Diversity--We embrace diversity as a central part of our civic and institutional identity and as a powerful element in the education and development of every individual.

Community Connection--Our colleges must be rooted in the communities they serve, and we are determined to build and maintain strong, durable, and responsive collaborations with our educational partners across Los Angeles, and with business, labor, and other organizations that contribute to the fabric of our larger community.

The Promise of Technology—Technology plays a critical role in all of our institutional operations and educational programs, and we are committed to keeping both our district systems and classrooms on the forefront of technological innovation and efficiency.

Public Accountability--We are accountable to the public for all aspects of our mission, and we owe the students we serve, the people of Los Angeles, and the State of California regular and timely assessments of all of our efforts in support of student learning and student success.

EMERGENCY INFORMATION

The college is concerned about your safety in case of an emergency. Detailed instructions are posted in every classroom and throughout the LATTC campus. Additionally, you may visit the Environmental Health and Safety Website for more information: http://college.lattc.edu/safety/

In case of emergency, remember these key points. "**S.A.F.E**."

S	**S**ecure yourself
A	**A**ssess the situation
F	**F**orward information
E	**E**nact according to the campus disaster plan

EMERGENCY RESPONSE INFORMATION

LATTC-Sheriff Telephone Numbers For Emergency

In case of an emergency, you should immediately contact the College's Sheriff's Office on campus. **Dial Ext 3600** to reach the College Sheriff's office from any campus phone.

- You also may dial **911** to reach the sheriff's office.
- Pick up the campus emergency blue telephone station "dial direct" to the College Sheriff's Office.
- If you use your **cell phone** you may dial **213-763-3600** to connect to the College Sheriff's office.

Please note if you dial **911** from your cell phone or pay phone on campus, it **will not connect directly to the College Sheriff's, but it will connect to outside emergency services.**

MEDICAL EMERGENCY

- Call the College Sheriff if the injury is life threatening and calmly provide detailed information to the Sheriff's Office;
- Stay on the line to answer any questions.
- Comfort the injured person by talking to them until help arrives.

EARTHQUAKE

In the event of earthquake:

- **Stay Calm.**

If inside

- Stay inside.
- IMMEDIATELY get away from windows and large objects that may topple; DROP, COVER, and HOLD ON
  - **DROP** to the ground.
  - **COVER** by getting under a sturdy desk or table, and
  - **HOLD ON** to it until the shaking stops.

If outside

- Stay outside.
- Go to your designated evacuation area on campus, away from buildings, trees, and power lines.

FIRE/SMOKE

If you detect fire or smoke

- Immediately activate the nearest fire alarm pull station.
- Call the College Sheriff and notify them of the location of the fire.

If you hear a fire alarm

- Immediately EVACUATE the area.
- Turn off all equipment and close doors as you leave.
- Proceed to the nearest exit and to your designated "Evacuation Area".
- Remain calm and await further instructions.

ELEVATOR ENTRAPMENT

If you become trapped in an elevator, remain calm.

- Press the red emergency button to activate the audible elevator alarm system which automatically notifies College Sheriff and Physical Plant Ext: 3612, then
- Wait for qualified personnel to respond and assist. **DO NOT ATTEMPT TO STEP OFF THE ELEVATOR** unless specifically instructed to do so.

2. Student Success and Support Program

Student Success and Support Program – Matriculation Process

Senate Bill 1456 revised and renamed the Matriculation Act of 1986 as the Seymour-Campbell Student Success Act of 2012. Signed by Governor Brown on September 27, 2012, the program began on January 1, 2013 and will be implemented through stages over a five-year period.

The Student Success and Support Program (formerly Matriculation) supports the transition of new students into the college by providing services that promote academic achievement and successful completion of degrees, transfer preparation, career technical education certificates, or career advancement.

Effective Fall 2014, based on student responses to the Los Angeles Trade Technical College application for admission, students will be identified as matriculating or non-matriculating. Students identified as matriculating are referred to core matriculation services: assessment placement, orientation, and counseling. Students must complete the assessment placement, orientation, and counseling (abbreviated student educational plan) prior to their priority registration date and time. The abbreviated student educational plan is provided during the in-person orientations. After registration and sometime during the semester, a comprehensive student educational plan must be completed within a reasonable time period by making an appointment to meet with a counselor. Non-matriculating students are exempt from participating in the core matriculation services, but are advised to access these services if they plan to pursue a degree or certificate.

Student Rights and Responsibilities: (Title 5 Section 55530)

- Identify an educational and career goal
- Diligently engage in course activities and complete assigned coursework
- Complete courses and maintain progress toward an education goal and completing a course of study
- Matriculating Students
  1. Must identify a course of study.
  2. Participate in the assessment placement process.
  3. Complete an orientation activity provided by the college.
  4. Participate in counseling to develop at minimum an abbreviated student education plan.
  5. Failure to complete a, b, c, and d (above) may result in a hold on a student's registration or loss of registration priority until the services have been completed.
  6. A comprehensive educational plan must be completed by the 3rd semester or after completion of 15 semester units of degree applicable coursework (effective Fall 2015).

Admissions

Complete the LATTC admissions application online at www.lattc.edu. Submit official high school transcripts and any previous official college transcripts. Submit proof of residency.

Orientation

Orientation provides students with information about the variety of programs and services at LATTC. Students must participate in orientation. Orientations are conducted in person and the schedule can be accessed online at http://college.lattc.edu/matriculation/orientation.

Assessment

LATTC offers a self-paced computerized assessment placement test. Students receive an assessment summary that may be used to select their courses and to plan their educational and career goals. Course recommendations are advisory and should be discussed with a counselor.
The Assessment Center provides services to complete the Prerequisite/Co-Requisite Challenge Exams and course prerequisite/co-requisites clearances. The assessment Center offers Accuplacer for English and math placement "Tests of Adult Basic Education (TABE)" non-credit courses. This test will measure the student's grade level in Language, Math and Reading. This is not a pass/fail test. This is a timed test. Testing is available through department referral. Please see the Assessment Center for further information.

Assessment Testing Policy

All students that have taken the Assessment test will be allowed to retest once a term, not to exceed four times a year; as long as they have not completed a course in either the corresponding Math or English course sequence. All test scores are valid for 2 years.

Please be prepared as retesting policies are strictly enforced and are subject to change. Assessment placement results from other California Community Colleges are accepted within the last two years.

Counseling

After participation in the assessment placement process, students will meet in a group with counselors and receive an abbreviated student educational plan.

All students should meet with a counselor during the semester to develop a comprehensive student educational plan. All students who have not declared an educational goal and students who are enrolled in pre-collegiate basic skills courses are highly encouraged to meet with a counselor to develop a student educational plan.

Follow-up/Early Alert

Early Alert provides mid-semester evaluation and feedback of a student's academic progress according to their classroom instructors. Referrals to support services are made when needed or requested and College Success workshops are offered throughout the semester (see website for dates).
Exemptions (Title 5 Section 55532)

Exemption

Exemption from core matriculation services (assessment, orientation, and counseling) if the student;

1. Has completed an associate degree or higher;
2. Has enrolled at the college for a reason other than career development or advancement, transfer, attainment or a degree or certificate , or completion of a basic skills or English as a Second Language course sequence;

3. Has completed these services at another community college within a time period as identified by the district;
4. Has enrolled at the college solely to take a course that is legally mandated for employment as defined in section 55000
5. Has enrolled at the college as a special admit student pursuant to Education Code section 76001.

COLLEGE DEADLINE POLICY

The college strictly enforces the published deadlines for admissions application, either dropping or adding classes, fee refunds and graduation applications.

RESIDENCY REQUIREMENTS

California Residence Requirement

To attend any of the Los Angeles Community Colleges as a resident of California, a student is required to have been a California resident for more than one year immediately preceding the Residence Determination Date. The "Residence Determination Date" is that day immediately preceding the opening day of instruction of the semester, Fall or Spring and Winter or Summer sessions. Residence is defined as a union of act and intent.

Non-Resident

A non-resident student is one who has not had residence in the State of California for more than one year immediately preceding the Residence Determination Date. Physical presence alone is not sufficient to establish California residency nor is intent when not coupled with continuous physical presence in the State. Certain non-U.S. citizens are permitted to establish residency and certain others are not. Check with the Admissions Office regarding your particular status.

Residency classification is made when the application is accepted. Students may petition for a change of classification before the semester in question.

A student classified as a non-resident will be required to pay nonresident tuition fees as established by the LACCD Board of Trustees.

Non-Resident Tuition Exemption (AB540 &AB669)

Students who are classified as non-residents may be eligible for a waiver of non-resident tuition if they meet the following criteria:

1. Attended a California high school for three (3) or more years
2. Graduated from a California high school or earned an equivalent of a high school diploma (for example a GED or a passing score on the high school proficiency exam).
3. Signed an affidavit stating that the student meets these conditions and stating that the student has filed, or will file, an application with the United States Citizenship and Immigration Service (USCIS) to legalize his/her immigration status as soon as possible.
4. Do not have a non-immigrant visa status with U.S. Citizenship and Immigration Services.

Effective January, 2002, all students regardless of their immigration status, who meet all the requirements set under the new law AB540, can be exempted from Non-Resident Tuition. Please see Admissions Office, JH-Lobby, for details.

Foster Youth students may qualify for In State residency with Assembly Bill 669.

Residence Classification Appeal

A student may appeal the residence classification determined by the College. Students who have been classified as non-residents must petition to be reclassified as residents if they feel their status has changes. The Residence Reclassification forms are available in the Admissions Office and must be submitted prior to the semester in which reclassification as a resident is to be effective.

ADMISSION ELIGIBILITY

You are eligible to attend LA Trade-Technical College if you meet any of the following criteria:

1. You have graduated from high school or have successfully passed the California High School Exit Examination.
2. You are over 18 years of age and are no longer attending high school and are capable of benefiting from the instruction offered.
3. You are under 18 years of age and not a high school student, with special permission as a full-time student, or concurrently enrolled student.

CONCURRENT ENROLLMENT AT LA TRADE-TECHNICAL COLLEGE

As a high school student you may enroll concurrently at L.A. Trade-Technical College. In addition to the application for admission, you must submit a separate concurrent enrollment form, approved by your high school counselor and your parents. All K-12 students require special processing. Call (213)-763-5560 for details. Concurrent students are given last priority for registration.

Application

The following procedure should be followed to enroll in Los Angeles Trade-Technical College. The application is submitted and completed online at www.lattc.edu. A student identification number will be assigned to all students. Once a student identification number is assigned, this number shall be used when students apply at another LACCD campus. Non-U.S. Citizens should bring proof of their immigration status so that the College may determine their residency for tuition purposes. If you are a returning student or have attended one of the LACCD colleges, you may submit your application on line.

Students must disclose any previous college enrollment. Failure to list any school, college, or university which you previously attended, or any deliberate falsification of information, is basis for dismissal from the college.

ENROLLMENT POLICIES

Adding Classes

Only students who have been admitted to the college and are in approved active status may add classes. Enrolled students who wish to add a class prior to the first day of classes should use the system at www.lattc.edu.

Auditing Classes

Students may be permitted to audit a class under the following conditions:

1. Complete an application and be authorized to register in the college.
2. Obtain permission of the instructor of the class at the beginning of the semester.
3. Pay a fee of $15 per unit. Fees may **not** be refunded. Students enrolled in classes to receive credit for ten or more semester units shall not be charged a fee to audit three or fewer semester units per semester. Students who drop below ten units will be required to pay the 3 units audit fee.

No student auditing a course shall be permitted to change his or her enrollment in that course to receive credit for the course. Students taking course for credit shall not be permitted to drop to audit the same course. Priority in class enrollment shall be given to students desiring to take the course for credit.

Enrollment in Same Course

Concurrent enrollment in more than one section of the same course during a semester is not permitted. Concurrent enrollment in courses which are cross-referenced to each other is not permitted (i.e., courses designated "same as" in the District Directory of Educational Programs and Courses). Violation of this regulation will result in exclusion from class and denial of course credit in both courses. Enrolling in classes scheduled or conducted during overlapping times is not permitted. Students will be excluded from both classes and denial of credits and subject to disciplinary action (See Standards of Student Conduct).

Dropping Classes

Students wishing to drop one or more classes must do so through the online registration system, at www.lattc.edu.

It is the student's responsibility to officially drop from class through the website or in person. Students must drop by the end of the second week of semester-length classes to avoid fees. Any drops or exclusions that occur after the no penalty drop date (under last day to drop without a "W") and up to 75% of the time the class is scheduled will result in a "W" on the student's record which will be included in the determination of progress probation. Withdrawals are not permitted beyond 75% of class meeting time.

A grade (A, B, C, D, F, P, INC, or NP) will be assigned to students who are enrolled past the last day to drop even if they stop attending class, except in cases of extenuating circumstances. After the last day to drop students may withdraw from class upon petition demonstrating extenuating circumstances and after consultation with the appropriate faculty.

Verification of Enrollment

Verification of the Student's Enrollment may be obtained upon written request. Verification Request forms are available in the Admissions and Records Office. District policy prohibits the acceptance of a Verification Request over the phone. **Please allow ten (10) working days** for processing. The first two verifications or transcripts requested are free. Each additional request is $3.00 per copy. Students may request same day processing to expedite their request for an additional fee of $7.00 per verification. Verification Request by agencies or individuals other than the student must be accompanied by a signed release permitting the College to release that student's information. A valid photo ID is required when picking up the transcripts.

INTERNATIONAL STUDENTS ADMISSION (F-1 VISA)

Phone: **(213) 763-5345**
Fax: **(213) 763-5991**
Location: **JH-316**

Website: **http://college.lattc.edu/international/**
Email: **instud@lattc.edu**

F-1 International Students Admission

Los Angeles Trade-Technical College (LATTC) welcomes applications from international students. We also accept transfer applications for F-1 Visa students currently studying in the U.S. as well as Change of Status applications for visitors who currently have other visas. Applications may be obtained by contacting the office.

F-1 International Students Application Deadlines:

- Fall Semester: July 1
- Spring Semester: December 1

F-1 students transferring from schools within the United States (US) and students who are applying for a Change of Status have a more flexible deadline. Call our office for more information.

The applicant must provide:

1. The supplemental International Students Application.
2. Official TOEFL scores sent directly from Educational Testing Services – this may be waived if you are from a country that uses English as its primary language of instruction or if you are transferring from a school within the United States. We also accept the International English Language Test Skills (IELTS) report and the Step Eiken in lieu of the TOEFL. Please contact us for all test cut scores.
3. Two recent passport-sized photographs of applicant.
4. Official transcripts and/or diplomas from secondary school or colleges attended – Student must be a high school/secondary school graduate. If these documents are not in English, an official translation must also be submitted.
5. The LATTC Affidavit of Support with an attached official bank statement or letter with a minimum of $20,000 USD in available funds dated within the last 6 months.
6. Non-refundable $35 application fee – check, cash, or money order (do not send cash in the mail).
7. Copy of valid passport identification page.
8. Transfer students must also submit the following documents: LATTC Transfer Eligibility Form, a copy of your current I-20, a copy of your visa, and a copy of your I-94.

Please allow 2 – 4 days for application processing time once ALL documents are received by the college. Eligible students will be issued an I-20A form by LATTC. This document can be used by the student to obtain an F-1 Visa from a US Embassy in his/her home country. Students who are already in the country may use this new I-20 to change their visa status or to complete their transfer process from another educational institution.

International student fees are approximately $268 per unit, which is subject to change by the California legislature. Health care in the United States can be costly without proper insurance coverage. Starting the Fall 2007 semester, LATTC International Students will automatically be enrolled in an insurance plan through Renaissance Insurance. The cost for a 6-month period of coverage is $618, which is subject to change. The $618 will be included as part of your LATTC fees every Fall and Spring Semester (no waivers). Please visit our office for a copy of your benefits.

Per U.S. Citizenship and Immigration Services (USCIS) regulations, all F-1 International Students must maintain a full-time course load during the Fall and Spring semesters – certain exceptions apply, please see your Designated School Official (DSO) for more information. A full-time course load is defined as a minimum of 12 units. Dropping below 12 units without PRIOR written permission from the DSO places your student status at risk. F-1 students are not required to attend the Winter and Summer sessions but may do so if they wish.

Student Support and Success Program Services

Phone: **(213) 763-5560**
Location: **Mariposa Hall, MA-105**

Student Support And Success Services (formerly known as Matriculation) is a process that brings LATTC and students (who enroll in credit courses) into an agreement to assist students in attaining their educational goal through the college's programs, policies and requirements. It involves a partnership between the student and the college which begins when students apply for admission and ends after completing your studies. All new students must complete orientation, assessment and counseling/educational planning to receive priority status.

ASSESSMENT

The Assessment Placement Process at LATTC consists of computerized English and Math assessment tests. The admissions application must be submitted and processed prior to participating in the Assessment Placement Process. All new students must complete orientation, assessment and counseling/educational planning to receive priority status.

Course recommendations are advisory and should be discussed with a counselor. The Assessment Center provides services to complete the Prerequisite/Co-requisite Challenge Exams and course prerequisite/co-requisites clearances. The Assessment Center offers Accuplacer for English and math placement and the "Test of Adult Basic Education (TABE)," a diagnostic test for non-credit courses. These test measure the student's grade level in Language, Math, and Reading. These are not pass/fail tests. These are timed tests. Additional testing is available through department referral. Please see the Assessment Center for further information. Located MA-001

Please be prepared and study for this English and Math assessment as students retesting policies are strictly enforced and are subject to change. Assessment placement results from other California Community Colleges are accepted within the last two years. Any student with a verified disability may arrange for alternative administration of the Assessment Placement Process (English, Reading, and Mathematics) by contacting the Disabled Student Program and Services (MA 100) at (213) 263-3773.

Assessment Testing Policy
All students that have taken the Assessment test will be allowed to retest once a term, not to exceed four times a year; as long as they have not completed a course in either the corresponding Math or English course sequence. All test scores are valid for 2 years.

ORIENTATION

Orientation – provides students with a variety of programs and services at LATTC. Students who would like to speak directly with college representatives and receive information regarding the programs and services may attend an in-person orientation (see Orientation webpage at http://college.lattc.edu/matriculation/orientation/ for dates).

COUNSELING

The Counseling Institute provides students with the opportunity to meet with a counselor to obtain vital Program of Study Information and complete a Student Educational Plan. Students are encouraged to meet with a counselor at least once a semester.



Fees and Costs

ASSOCIATED STUDENT ORGANIZATION (ASO) FEE

ASO programs are supported by a $7.00 membership fee, payable at the Business Office or Bridges to Success Center, for day and evening students. These fees are necessary to utilize ASO services. Any student, upon enrolling, is eligible to become a paid member of the Associated Student Organization. Associated Student Organization members are entitled to all rights and privileges, including preferred parking, loan application, athletic contests, and all activities of the Associated Students. Also, all students must also pay the mandatory $1.00 (one dollar) Student Representation Fee that supports student issues, policy and procedures, and advocacy activities that benefit students.

ENROLLMENT FEE

The State Education Code requires Community Colleges to charge enrollment fees* of each student enrolling in college. The fee prescribed by these sections shall be forty-six dollars ($46) per unit per semester with no maximum amount per semester. For example, if you enroll for ten units, the fee will be $460. If you enroll for fifteen units, the fee will be $690. See the Financial Aid Office prior to payment for enrollment fee waiver assistance. Non-resident students paying non-resident fees are required to pay the forty-six dollars ($46) per unit enrollment fee. All students who pay fees are provided with a Registration Fee Receipt at the time of payment.

ENROLLMENT FEE REFUND POLICY

For full term courses: a student may receive a full refund for classes dropped (and refunds requested from the Business Office) through the end of the second week of instruction. There will be no refunds for classes dropped after that, unless a class is canceled or rescheduled by the college administration. After the second week of classes, the student may drop a course and use the fee previously paid that semester to add another class. Therefore, we advise the student to drop and add at the same time.

For short term, Summer session, and Winter Intersession courses, students may receive a full refund for classes dropped (and refunds requested in the Business Office) through the end of a period of time equal to 10% of total class time usually during the first week of classes. There will be no refunds after that, unless a class is canceled or rescheduled by the administration. Students are required to request refunds at the Business Office at the time they drop their classes even if dropping by telephone. If college expenses have been paid by federal financial aid funds, any refund due will revert to the financial aid program rather than to the student. Expenses paid by financial aid may be subject to a special pro-rata refund calculation.

Contact the Financial Aid Administrator or the College Financial Administrator for specific information regarding refund calculations for financial aid recipients.

HEALTH SERVICES FEE

The Board of Trustees has required that each college collect a mandatory eleven-dollar ($11) health services fee during the Fall and Spring semesters and an eight-dollar ($8) fee during Summer session and Winter Intersession. This fee must be paid at the time of registration. Los Angeles Community College District Policy exempts the following students from paying the student health fee: (a) students who depend exclusively on prayer for healing in accordance with the teaching of a bonafide religious sect, (b) students who are attending classes under an approved apprenticeship training program, (c) non-credit education students, (d) students enrolled in District colleges exclusively at sites where student health services are not provided, (e) students who are enrolled District colleges exclusively through Instructional Television or distance education classes, (f) student who are enrolled in District colleges exclusively through contract education. Students exempted under the provisions of (b), and (c) above are eligible to receive the services of the college health program; all other exempted students are not eligible to receive the services of the college health program. Students who are exempted may obtain a Health Services Exemption Form from the Admission Office (JH-Lobby). Completed forms must be returned to the Admission Office for approval. See the Financial Aid Office (JH-214) for other possible exemptions.

INSTRUCTIONAL MATERIALS

Students may be required to provide and/or pay for instructional and other materials for credit or noncredit courses. Such materials shall be of continuing value to a student outside of the classroom setting and shall not be solely or exclusively available from the District. If class materials are provided, the student may be assessed those costs for materials. Payment and verification of material fees is to be completed at the college Bookstore, CH-102 or Business Office, JH-Lobby.

NON-RESIDENT TUITION FEE

The 2014-2015 tuition for non-resident students is $190 per unit plus the $46 per unit enrollment fee. Fees must be paid at the time of registration. These fees are subject to change each academic year. International students must first pay a non-refundable $35 application fee. The Board established a twenty-five dollars $25.00* per semester processing fee for students classified as nonresidents who are both citizens and residents of a foreign country. These fees are subject to change each academic year.

**Subject to change by the California Legislature*

Notes:

1. Fees paid by federal financial aid funds will be subject to a special refund calculation.
2. Non-resident students are also required to pay the community college enrollment fee.

A non-resident student who formally drops or otherwise separates from part or all of his/her enrollment may request a refund of previously paid non-resident tuition in accordance with the schedule below. Such request must

be made in writing at the Business Office at the time the classes are dropped. The date used for non-resident refund purposes is the date on which such request is filed and time stamped, regardless of when separation may have occurred. All non-resident refunds will be made by mail.

Non-resident refunds will be computed as follows:

CLASS TYPE	DATE REQUEST FILED	REFUND
Regular Length (Fall and Spring semesters)	Through second week of instruction	Full Tuition
	After second week of instruction	No Refund
Short Term (Less than regular length, Summer Session, and Winter Intersession)	Through 10% of class length	Full Tuition
	After 10% of class length	No Refund

STUDENT REPRESENTATION FEE

The student representation fee is a mandatory $1.00 (one dollar) per semester fee to provide support for students/ representatives who support student viewpoints before various governmental offices and agencies. Students may for religious, political, financial or other reasons, refuse to pay the fee in writing on a form provided for this purpose.

PARKING FEE

To encourage membership in the Trade Tech Associated Students' Organization (ASO), the College Administration has entered into an agreement with the ASO whereby students who pay both the District parking fee and join the ASO will receive as a benefit of membership preferred parking privileges in Fall and Spring Semesters. A limited number of Preferred Student Parking Permits sold on a first come basis are available for purchase at the Business Office for $27.00 (includes $7.00 ASO fee), General Student Parking Permits cost $20.00 at the 18th Street & Grand Avenue Lot and at Glory Church located at Washington Boulevard & Grand Avenue. General Student Parking for Winter and Summer Session is $10.00. Parking in areas marked "parking by permit only" is restricted to vehicles displaying a valid permit. Vehicles parking on college property without a valid permit will be subject to citation.

COTOP INFORMATION (CHANCELLOR'S OFFICE TAX OFFSET PROGRAM)

The COTOP program is a method of collecting past due fees for the Los Angeles Community College District owed by former students. The Los Angeles Trade Technical College Business Office reviews the accounts receivables and only submits those debts that are permitted to be collected through COTOP. Under the COTOP program, the Chancellor's Office requests the Franchise Tax Board to offset (deduct) the amount owed to a district from the student/debtor's personal state income tax refund, lottery winnings or other state refund.

Student accounts that have past due fees may be submitted to COTOP. This can include enrollment & associated fees incurred at the college. The Business Office will send out a letter to the last known address of a student, instructing the student that their past due fees may be sent to COTOP. The student then has 30 days to pay their fees in full.
Please be aware that this debt will NOT be submitted to any major credit agencies.

If a student's past due fees are not paid in full in the 30 days after the letters are sent out, the past due fee information will be submitted to the State of California COTOP. Please note that a 25% charge is added to all outstanding fees processed through COTOP.



3. District and College Policies

ACADEMIC FREEDOM

The Faculty shall have the academic freedom to seek the truth and guarantee freedom of learning to the students.

CAMPUS SECURITY ACT

As required by the federal Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act ("Clery Act"), the college's Annual Security Report contains policy statements and crime statistics for the campus. The Annual Security Report includes statistics for the previous three years concerning certain reported crimes that occurred on campus, in off-campus buildings or property owned or controlled by the college, and on public property within or immediately adjacent to the college. The report also includes institutional policies concerning campus safety and security, such as policies on drug and alcohol use, crime prevention, the reporting of crimes, sexual assault, and emergency response and evacuation procedures. You can obtain the college's Annual Security Report online at http://college.lattc.edu/sheriff/crime-reporting-procedures/annual-security-report/ You may also request a paper copy by contacting Dr. Mary Gallagher, Vice President of Administrative Services, JH-532.

CONOCIMIENTO LIMITADO DEL INGLÉS

Las clases para aprender oficios están abiertas a todos los estudiantes, aún para los que tienen dificultad con el idioma. Aunque la falta deconocimiento del idioma inglés no es una barrera para matricularse enestas clases, se recomienda a los alumnos que utilicen los servicios queel colegio ofrece con este fin.

DRUG-FREE WORKPLACE POLICY

In accordance with SECTION 22 of the DRUG-FREE SCHOOLS AND COMMUNITIES ACT OF 1989, Los Angeles Trade-Technical College strives to maintain a drug and alcohol free campus for its students and employees. The unlawful manufacturer, distribution, dispensation, use or possession by students and college employees of illegal controlled substances or alcohol in all buildings, property, facilities, service areas, or on District business is prohibited (per Board Rules regarding Standards Of Conduct, Section 9803.19).

The College shall maintain a drug and alcohol free awareness policy to inform students and employees about the dangers and health risk of drug and alcohol abuse in the workplace, on the campus and during college sponsored activities. Students and employees will be informed of the sanctions that will be imposed for policy violations and the availability of drug/alcohol counseling, treatment and rehabilitation assistance. This information will be distributed yearly to all students and employees.

All students and employees are required to comply with this policy as a condition of their continued student status or employment. Any student or employee violating this policy may be required to participate satisfactorily in a substance abuse rehabilitation program, and/or may be subject to disciplinary action, up to and including dismissal or exclusion under applicable District policies. In addition, an employee convicted of any workplace drug crime, must notify the college personnel office within five (5) days of conviction.

FAMILY EDUCATION RIGHTS AND PRIVACY ACT (FERPA)

See Student Records and Directory Information on page 13. For more information on student rights under the FERPA, please go to our LA Community College web link http://www.laccd.edu/About/Documents/AdministrativeRegulations/E-105.pdf.

EQUAL EMPLOYMENT OPPORTUNITY

The policy of the Los Angeles Community College District is to implement affirmatively, equal opportunity to all qualified employees and applicants for employment without regard to race, color, national origin, ancestry, religion, creed, sex, age, handicap, marital status, medical condition (cancer related), sexual orientation, or veteran status. Positive action will be taken to ensure that this policy is followed in all personnel practices, including recruitment, hiring, placement, upgrading, transfer, demotion, treatment during employment, rate of pay or other forms of compensation, selection for training, layoff, or termination. A vigorous Equal Employment Opportunity Program will be maintained to ensure appropriate utilization of certain protected groups in specific areas and levels within the district workforce through the implementation of specific result oriented procedures and activities (Board Rule 101301). Inquiries regarding Equal Employment Opportunity at Los Angeles Trade-Technical College should be directed to the College Equal Employment Opportunity Representative, Dr. Mary Gallagher, (213) 763-7040.

FREEDOM OF SPEECH AREA AND PROCEDURES

Board Rule 9902, Article IX, States, "The college president shall designate an area or areas on the college campus as areas for free discussion and expression by all persons. A Free Speech Area may only be located where there is a normal flow of student traffic with unlimited accessibility. Necessary campus rules governing the operation of such areas shall govern only the time, place and manner in which said areas are to be used. All such rules shall be applied equally and fairly to all persons desiring to use the Free Speech Areas. No restrictions shall be placed on subject matter, topics or viewpoints expressed in Free Speech Areas.

In compliance with the above Board Rule, the college president has designated the CH-Mall Quad as the Free Speech Area. All individuals or organizations wanting to use the Free Speech Area, fill out an application and obtain approval from the Vice President of Student Services office, located in JH-512, prior to use of this area. The guidelines and rules for use of this area, along with time, place, manner will be distributed to the interested party. This procedure does not apply to activities sponsored by the college.

GRADUATION RATES

More information about Student Right-to-Know Rates can be found at the California Community Colleges "Students Right-to-Know Rates Information Clearinghouse Website" located at http://srtk.cccco.edu/index.asp.

HIGHER EDUCATION OPPORTUNITY ACT/PEER-TO-PEER – (HEOA P2P) COMPLIANCE IMPLEMENTATION (ILLEGAL FILE SHARING):

Unauthorized distribution of copyrighted material, including unauthorized peer-to-peer file sharing, may subject students to civil and criminal liability. Civil liability for copyright infringement may include payment of monetary damages to the copyright owner. Criminal penalties for copyright infringement may include fines up to $250,000 and imprisonment up to ten years. Students who violate the District's computing facilities usage policy (LACCD Administrative Regulation B-28) may also be subject to college disciplinary action, including, but not limited to, suspension or expulsion.

LIMITED ENGLISH PROFICIENCY

Occupational education classes are open to all students. Although the lack of proficiency in English is not a barrier to enrollment in occupational education courses, it is recommended that students needing remedial English assistance utilize the services of the college that are provided for persons who are limited in English proficiency or have English as a second language as a bridge for entry into the vocational program.

NONDISCRIMINATION POLICY

All programs and activities of the Los Angeles Community College District shall be operated in a manner which is free of discrimination on the basis of race, color, gender, national origin, ancestry, religion, creed, pregnancy, marital status, medical condition (cancer related), gender orientation, age, disability, or veteran status (Reference: Board Rule1202). Inquiries regarding discrimination issues should be directed to Vincent Jackson, (213) 763-7035. Inquiries relating to disabilities and special accommodations per the Americans with Disabilities Act should be directed to the Office of Disabled Students Programs and Services (DSPS), (213) 763-3773, TDD (213) 763-5375.

POLÍTICA SIN DISCRIMINACIÓN

Los Angeles Community College District ofrece igualdad de oportunidades en todos los programas y actividades educativas, libre de discriminación en cuanto se refiere a raza, color, lugar de origen, ascendencia, religión, creencias, sexo, estado de gestación, estado civil, estado de salud (tratándose de cáncer), orientación sexual, edad, incapacidad física o estado como veterano. (Referencia: Board Rule 1202). Las indagaciones o quejas acerca de la discrminacion deberán ser dirijidas a la Vincent Jackson, 9213 0 763-7035. Las indagaciones relacionadas con la incapacidad o arreglos especiales para incapacitados, según el Acta para Americanos Incapacitados, deberán ser dirijidas a los Programas y Servicios a Estudiantes Incapacitados, al teléfono (213) 763-3773 y para Medios de Telecomunicación para sordo-mudos o TDD al teléfono (213) 763-5375.

OPEN ENROLLMENT

Unless specifically exempted by law, every course for which State apportionment is claimed is fully open to any person who has been admitted to the College and who meets the appropriate academic prerequisites.

SEXUAL ASSAULT

In compliance with AB 1088, the Los Angeles Community College District is committed to providing a safe environment for its students, faculty, and staff. The Los Angeles Community College District Board of Trustees condemns any act of sexual assault committed on any of its facilities. In the event of sexual assault committed on the grounds or in facilities maintained and/or used by the District, any victim of a sexual assault who is one of the District's students, faculty, staff, or visitors shall promptly receive appropriate treatment and full and accurate information. Individuals who commit sexual assault while on properties within the control of the District shall be subject to appropriate criminal prosecution and/or District disciplinary procedures. Confidentiality is fundamental to all aspects of cases dealing with sexual assault. The names of sexual assault victims shall not be revealed by persons responsible for implementing and enforcing the provisions of this Chapter, except with the consent of the victim. District Office of Equal Employment Opportunity/Diversity (213) 891-2315 or College Sheriff (213) 763-3600.

SMOKING/NON-SMOKING POLICY

In an effort to preserve the rights of both smokers and non-smokers, the college has designated both smoking and non-smoking areas. This policy ensures that drifting smoke will not be sucked into classrooms, offices and other non-smoking areas. Non-smoking areas of the College are designated as any classroom, building or other enclosed facility, including hallways, porches, decks, arcades, and sidewalk adjacent to the building which any student is required to occupy or which is customarily occupied by non-smoking students.

Summary of the LACCD Policy 2015

Prohibited Discrimination and Harassment

Los Angeles Community College District • 770 Wilshire Boulevard, Los Angeles, CA 90017 • (213) 891-2317

The Policy

It is the policy of the Los Angeles Community College District to provide an educational, employment and business environment free from Prohibited Discrimination. Employees, students or other persons acting on behalf of the District who engage in Prohibited Discrimination as defined in this policy or by state or federal law shall be subject to discipline, up to and including discharge, expulsion, or termination of contract.

Academic Freedom

The Board of Trustees reaffirms its commitment to academic freedom, but recognizes that academic freedom does not allow Prohibited Discrimination. The discussion of ideas, taboos, behavior or language which is an intrinsic part of the course content shall in no event constitute Prohibited Discrimination, though such ideas may cause some students discomfort. It is recognized that academic freedom insures the faculty's right to teach and the student's right to learn.

Definition of Prohibited Discrimination

Prohibited Discrimination is defined as discrimination or harassment in violation of state or federal law on the basis of actual or perceived ethnic group identification, race, color, national origin, ancestry, religion, creed, sex (including gender-based sexual harassment), pregnancy, marital status, medical condition (cancer and genetic characteristics), sexual orientation, age, physical or mental disability, or veteran status.

Definition of Sexual Harassment

Sexual harassment is unwelcome sexual advances, requests for sexual favors, and other verbal, visual or physical conduct of a sexual nature, made by someone from or in the workplace or in the educational setting.

Retaliation

Retaliation means adverse personal, employment or academic decisions made against anyone who makes a complaint, refers a matter for investigation, participates in an investigation, represents or serves as an advocate for a complainant or alleged offender.

False Allegations

Anyone who files a complaint in which he/she knowingly makes false allegations of fact shall also have violated this policy and shall be subject to disciplinary action.

Confidentiality

All persons involved in investigation of complaints shall have a duty to maintain the confidentiality of the matters discussed, except as may be required or permitted by law, which include the rules and regulations of the District.

A complete record of each complaint and investigation shall be kept by the Office for Diversity, Equity and Inclusion.

The Written Decision or any Settlement Agreement regarding the results of the investigation shall be placed in the personnel file of each employee involved as an alleged offender or complainant.

Complaint Procedure

General Provisions

All supervisors shall be responsible for maintaining a work environment consistent with this policy. Any supervisor who becomes aware of a situation which could be reasonably perceived to be a violation of this policy must report it to the Office for Diversity, Equity and Inclusion. All employees are responsible for maintaining an educational environment consistent with this policy. Any employee who becomes aware of a situation which could reasonably be perceived as a violation of this policy should refer it to the Office for Diversity, Equity and Inclusion.

Investigation

A Compliance Officer shall promptly investigate all potential violations of this policy of which he or she becomes aware. A Compliance Officer shall receive the complaint, and notify the complainant, alleged offender, the College President or District administrator, and the Director for Diversity, Equity and Inclusion, within 5 business days of a potential violation of this policy. During the process of the investigation, the alleged offender has the right to be represented.

Informal Procedure

A Compliance Officer shall undertake efforts to informally resolve and investigate the charges. This process is limited to 30 days. If a resolution is reached, a Compliance Officer shall draft a Settlement Agreement to be signed by the complainant and the alleged offender. A Compliance Officer shall monitor the situation to insure that the resolution is properly implemented and maintain records.

Complaint Procedure

A written or verbal complaint shall be submitted to the LACCD Office for Diversity, Equity and Inclusion. The Complaint shall be filed no later than one year from the date when the complainant knew or reasonably should have known of the facts underlying the Complaint.

Compliance Officer's Report

Within 60 days after becoming aware of a potential violation of this policy, a Compliance Officer shall complete the investigation and make a written report to the College President or Deputy Chancellor.

The College President, or Deputy Chancellor, shall independently assess whether the "preponderance of the evidence" establishes a violation and shall determine what action is to be taken, if any. Prior to making the decision, the alleged offender and complainant shall have the opportunity to make an oral statement, within 15 days from the receipt of the Compliance Officer's report.

Within 90 days from the start of the investigation, a Written Decision shall be mailed to the complainant and the alleged offender.

Disciplinary Action

If appropriate, the College President, Deputy Chancellor, or the Chancellor shall initiate the applicable disciplinary process within 10 business days of receiving the Written Decision.

Disciplinary action shall include, without limitation, verbal warning, probation, suspension, expulsion, letters of reprimand, Notices of Unsatisfactory Service, suspension, demotion or dismissal.

Appeals

If the complainant is not satisfied with the Written Decision, he/she may appeal to the District's Board of Trustees by submitting a written appeal to the Chancellor's Office within 15 days.

The Chancellor shall present the written appeal, the Written Decision, and the investigative report to the Board of Trustees in closed session. If 45 days elapse without further action, the Written Decision shall be the final decision of the District. In non-employment cases, the complainant has the right to file and appeal with the State Chancellor's Office, within 30 days after the Board decision is issued, or 45 days have elapsed, whichever comes first.

Additional Remedies

The complainant may pursue independently civil law remedies, including but not limited to injunctions, restraining orders, or other orders. An individual who believes that he/she is the victim of Prohibited Discrimination may also file a complaint with the Department of Fair Employment & Housing at (800) 884-1684, the Equal Employment Opportunity Commission at (213) 894-1000, for employment based complaints; and the Department of Education, Office for Civil Rights at (415) 556-4275, for non-employment complaints whether or not the complainant chooses to utilize the District's internal procedure. Complaints may also be filed with the State Chancellor's Office.

This is an excerpt. The specific rules and procedures for reporting charges of Prohibited Discrimination and for pursuing available remedies are incorporated in the Board Rules in Chapter XV, Board Rules 15001-15022.

Copies of the policy and procedures may be obtained from the LACCD Office for Diversity, Equity and Inclusion and District website at *www.laccd.edu/diversity* or by calling the Office for Diversity, Equity and Inclusion at (213) 891-2315 or (213) 891-2317.

2015

What You Can Do About

Prohibited Discrimination and Harassment

Any member of the college community which includes students, faculty, staff, other LACCD employees and general public who believes, perceives, or has actually experienced conduct related to LACCD that may constitute prohibited discrimination or harassment has the right to seek help. Everyone has the responsibility and obligation to report such conduct.

▪ Talk to the Offender

Often problems will stop once the offender realizes the conduct is unacceptable.

▪ Put it in Writing

Let the offender know that you don't like being treated this way and will report him/her unless it stops.

▪ Keep a Record

Record the date, time, place, and names of witnesses, and describe the exact nature of the incident.

▪ Don't Ignore It

Ignoring prohibited discrimination and hoping it will not be repeated is the most common reaction, yet is the most ineffective way to deal with such incidents.

▪ Contact the Office for Diversity, Equity and Inclusion

Prohibited discrimination should be reported immediately to the Office for Diversity, Equity and Inclusion.

Compliance Officers are always available to discuss any possible discrimination or sexual harassment complaint in confidence.

You Have the Right:

- To work and study in an atmosphere free of harassment and discrimination
- To be judged by the same criteria as all others, not by standards that are less demanding, or more rigorous, or different in any way
- To report or complain, free of retaliation

Discrimination may include, but is not limited to, the following type of behavior:

- Exclusion from employment opportunities such as training, transfer, or promotion
- Allocation of poor grades based on one's protected class
- Denial of reasonable accomodation because of disability
- Decisions based on stereotypes or assumptions about one's abilities, traits or performance

Sexual harassment may include, but is not limited to, the following types of conduct:

- Unwelcome, unsolicited contact with sexual overtones (written, verbal, physical, and/or visual contact)
- Unwelcome pressure for dates
- Display of sexually suggestive objects, cartoons, posters
- Request for sex in exchange for grades, recommendations, job opportunities

Office for Diversity, Equity and Inclusion

(213) 891-2317
diversityprograms@laccd.edu
laccd.edu/diversity

Los Angeles Community College District:

Board of Trustees: **Scott J. Svonkin** • **Mike Eng** • **Mike Fong** • **Andra Hoffman** • **Sydney K. Kamlager** • **Ernest H. Moreno** **Nancy Pearlman** • **Gerson A. Liahut-Sanchez**, Student Trustee

District Administration: **Dr. Francisco C. Rodriguez**, Chancellor • **Dr. Adriana D. Barrera**, Deputy Chancellor, • **Dr. Felicito Cajayon**, Vice Chancellor for Economic and Workforce Development • **Bobbi Kimble**, Interim Vice Chancellor for Educational, Programs & Institutional Effectiveness • **Dr. Albert J. Román**, Vice Chancellor for Human Resources • **Jeanette Gordon**, Chief Financial Officer/Treasurer • **Dr. Kevin D. Jeter**, General Counsel • **James D. O'Reilly**, Chief Facilities Executive

Office for Diversity, Equity and Inclusion: (213) 891-2317

Student Rights and Responsibilities

BOARD RULE 9803 STANDARDS OF CONDUCT

A student enrolling in one of the Los Angeles Community Colleges may rightfully expect that the faculty and administrators of the colleges will maintain an environment in which there is freedom to learn. This requires that there be appropriate conditions and opportunities in the classroom and on the campus. As members of the college community, students should be encouraged to develop the capacity for critical judgment and to engage in the sustained and independent search for truth. All persons shall respect and obey civil and criminal law, and shall be subject to legal penalties for violation of laws of the city, county, state and nation.

All visitors making use of the facilities or grounds of any college of the District will be asked to sign a statement that they have received the Standards of Conduct and the rules relating to campus visitors adopted by the Board of Trustees. A signature will not be a prerequisite to activities on campus. A record will be kept of all persons who use the facilities or grounds of the college.

Conduct in all of the Los Angeles Community Colleges must conform to District and college rules and regulations. Violations of such rules and regulations may result in disciplinary action depending on the individual's status as student, faculty, staff or visitor. Violations of conduct on campus rules and regulations include but are not limited to the following:

Board Rule 6201.12

COMPETENCY REQUIREMENT: Students entering prior to Fall 2009 must demonstrate competence in reading, in written expression, and in mathematics. This requirement may be met by achieving a grade of "C" or better in appropriate courses, recommended by the District Academic Senate, and approved by the Chancellor or by achieving a passing score on an examination or examinations recommended by the District Academic Senate and approved by the Chancellor.

Effective for all students entering on or after the Fall 2009 semester, competence in written expression shall be demonstrated by obtaining a satisfactory grade in English 101, or another English course at the same level and with the same rigor as recommended by the District Academic Senate and approved by the Chancellor. Competence in mathematics shall be demonstrated by obtaining a satisfactory grade in Mathematics 125 (Intermediate Algebra), or another mathematics course at the same level and rigor, or higher, and with elementary algebra or higher as a prerequisite, as recommended by the District Academic Senate and approved by the Chancellor.

The competency requirements in written expression or mathematics may also be met by completing an assessment, conducted pursuant to Title 5, CCR, section 55500 and achieving a score determined to be comparable to satisfactory completion of English 101 or Mathematics 125 respectively. That is, students may either place into English or mathematics courses above level of English 101 or Mathematics 125, or they may achieve a satisfactory score on a competency exam or other approved exam as recommended by the District Academic Senate and approved by the Chancellor.

The competency requirements may also be met by obtaining a satisfactory grade in courses with English and mathematics content (but taught in subjects other than English and mathematics), which require entrance skills at a level equivalent to those necessary for English 101 and Mathematics 125, respectively, and are taught at the same level and with the same rigor. The District Academic Senate shall recommend such courses to the Chancellor for approval.

Board Rule 6202

CATALOG RIGHTS: For these purposes, a catalog year is defined as beginning Fall semester and continuing through the proceeding summer. A Student remaining in the College District may elect to satisfy the degree, certificate or graduation requirements in effect at the college from which the student will either earn his/her degree, certificate or graduate:

1. At the time the student began such attendance at the college, or
2. at the time of graduation.

For the purposes of implementing this policy, the college may develop a policy to:

1. authorize or require substitutions for discontinued courses; or
2. require a student changing his/her major to complete the major requirements in effect at the time of the change;
3. allow students to select an intervening catalog in years between time student began continuous attendance and time of graduation.

The college's policy shall be developed in consultation with the college Academic Senate in accordance with the provisions of Chapter XVIII of the Board Rules - ACADEMIC SENATE AND THE BOARD OF TRUSTEES SHARED GOVERNANCE POLICY, and published in all college catalogs under appropriate headings.

This policy does not apply to college programs which are governed or regulated by outside government agencies or which require licensure or certification through one of these agencies.

Board Rule 6701.10

Acceptance of Pass Credits.
All courses and units used to satisfy LACCD curriculum requirements, including graduation requirements (Chapter VI, Article II, LACCD Board Rules), educational program requirements (Board Rule 6708) and transfer core curriculum requirements (Board Rule 6600), shall be from accredited institutions, unless otherwise specified in this Board Rule.

For purposes of this Board Rule, "accredited institution" shall mean a postsecondary institution accredited by an accreditation agency recognized by either the U.S. Department of Education or the Council on Postsecondary Accreditation. It shall not mean an institution "approved" by the California Department of Education or by the California Council for Private Postsecondary and Vocational Education.

Courses which have a grade of "C- (C minus grade)" do not satisfy any LACCD curriculum requirement that requires a grade of "C" or higher.

Board Rule 9803.10

Willful Disobedience. Willful disobedience to directions of College officials acting in the performance of their duties.

Board Rule 9803.11

Violation of College Rules and Regulations. Violation of College rules and regulations, including those concerning student organizations, the use of College facilities, or the time, place, and manner of public expression or distribution of materials.

Board Rule 9803.12

Dishonesty. Dishonesty, such as cheating, or knowingly furnishing false information to the colleges.

Board Rule 9803.13

Unauthorized Entry. Unauthorized entry to or use of the college facilities.

Board Rule 9803.14

College Documents. Forgery, alteration, or misuse of college documents, records, or identification.

Board Rule 9803.15

Disruption of Classes. Obstruction or disruption of classes, administration, disciplinary procedures, or authorized college activities.

Board Rule 9803.16

Theft of or Damage to Property. Theft of or damage to property belonging to the college, a member of the college community, or a campus visitor.

Board Rule 9803.17

Interference With Peace of College. The malicious or willful disturbance of the peace or quiet of any of the Los Angeles Community Colleges by loud or unusual noise, or any threat, challenge to fight, fight, or violation of any rules of conduct as set forth in this Article. Any person whose conduct violates this section shall be considered to have interfered with the peaceful conduct of the activities of the college where such acts are committed.

Board Rule 9803.18

Assault or Battery. Assault or battery, abuse or any threat of force or violence directed toward any member of the college community or campus visitor engaged in authorized activities.

Board Rule 9803.19

Alcohol and Drugs. Any possession of controlled substance which would constitute a violation of Health and Safety Code section 11350 or Business and Professions Code section 4230, any use of controlled substances the possession of which are prohibited by the same, or any possession or use of alcoholic beverages while on any property owned or used by the District or colleges of the District. "Controlled substances," as used in this section, include but are not limited to the following drugs and narcotics:

- opiates, opium and opium derivatives
- mescaline
- hallucinogenic substances
- peyote
- marijuana
- stimulants and depressants
- cocaine

Board Rule 9803.20

Lethal Weapons. Possession, while on a college campus or at a college sponsored function, of any object that might be used as a lethal weapon is forbidden for all persons except sworn peace officers, police officers, Sheriff, and other governmental employees charged with policing responsibilities.

Board Rule 9803.21

Discriminatory Behavior. Behavior while on a college campus or at a college-sponsored function, inconsistent with the District's non-discrimination policy, which requires that all programs and activities of the Los Angeles Community College District be operated in a manner which is free of discrimination on the basis of race, color, national origin, ancestry, religion, creed, sex, pregnancy, marital status, sexual orientation, age, handicap or veterans status.

Board Rule 9803.22

Unlawful Assembly. Any assemblage of two or more persons to 1) do an unlawful act, or 2) do a lawful act in a violent, boisterous or tumultuous manner.

Board Rule 9803.23

Conspiring to Perform Illegal Acts. Any agreement between two or more persons to perform illegal acts.

Board Rule 9803.24

Threatening Behavior. A direct or implied expression of intent to inflict physical or mental/emotional harm and/or actions, such as stalking, which a reasonable person would perceive as a threat to personal safety or property. Threats may include verbal statement, written statements, telephone threats or physical threats.

Board Rule 9803.25

Disorderly Conduct. Conduct which may be considered disorderly includes; lewd or indecent attire or behavior that disrupts classes or college activities; breath of the peace of the college; aiding, or inciting another person to breach the peace of the college premises or functions.

Board Rule 9803.26

Theft or Abuse of Computer Resources. Theft or abuse of computer resources including but not limited to:

a. Unauthorized entry into a file to use, read, or change the contents, or for any other purpose.
b. Unauthorized transfer of a file.
c. Unauthorized use of another individual's identification and password.
d. Use of computing facilities to interfere with the work of a student faculty member or college official, or to alter college or district records.
e. Use of unlicensed software.
f. Copying of software
g. Use of computing facilities to access, send or engage in messages which are obscene, threatening, defamatory, present a clear and present danger, violate a lawful regulation and/or substantially disrupt the orderly operation of a collage campus.
h. Use of computing facilities to interfere with the regular operation of the college or district computing system.

Board Rule 9803.27

Performance of an Illegal Act. Conduct while present on a college campus or at a location operated and/or controlled by the District or at a District-sponsored event, which is prohibited by local, State, or federal law.

Board Rule 9803.28

Academic Dishonesty. Violations of Academic Integrity include, but are not limited to, the following actions: cheating on an exam, plagiarism, working together on an assignment, paper or project when the instructor has specifically stated students should not do so, submitting the same term paper

to more than one instructor, or allowing another individual to assume one's identity for the purpose of enhancing one's grade.

Board Rule 9804

Interference with classes. Every person who, by physical force, willfully obstructs, or attempts to obstruct, any student or teacher seeking to attend or instruct classes at any of the campuses or facilities owned, controlled or administered by the Board of Trustees of the Los Angeles Community College District, is punishable by a fine not exceeding five hundred dollars ($500) or imprisonment in a county jail not exceeding one year, or both such fine and imprisonment. As used in this section, "physical force" includes, but is not limited to , use of one's person, individually or in concert with other, to impede access to or movement within or otherwise to obstruct the students or teachers of the classes to which the premises are devoted.

Board Rule 9805

Interference with performance of duties of employees. Every person who attempts to cause, or causes, any officer or employee of any of the Los Angeles Community Colleges or any public officer or employee to do or refrain from doing, any act in the performance of his/her duties, by means of a threat to inflict any injury upon any person or property, is guilty of a public offense.

Board Rule 9805.10

Assault or abuse of Instructor. Every parent, guardian, or other person who assaults or abuses any instructor employed by the District in the presence or hearing of a community college student or in the presence of other community college personnel or students and at a place which is on District premises or public sidewalks, streets, or other public ways adjacent to school premises, or at some other place where the instructor is required to be in connection with assigned college activities is guilty of a misdemeanor.

Board Rule 9806

Unsafe Conduct. Conduct which poses a threat or harm to the individual and/or to others. This includes, but is not limited to, the following types of conduct:

a. Unsafe conduct in connection with a Health Services Program (e.g., Nursing, Dental Hygiene, etc.);
b. Failure to follow safety directions of District and/or College staff;
c. Willful disregard of safety rules as adopted by the District and/or College; and/or
d. Negligent behavior which creates an unsafe environment.

STUDENT DISCIPLINE PROCEDURES

Community college districts are required by law to adopt standards of student conduct along with applicable penalties for violation (Education Code Section 66300). The Los Angeles Community College District has complied with this requirement by adopting Board Rule 91101, Standards of Student Conduct (See above).

The District has adopted Board Rule 91101, Student Discipline Procedures, to provide uniform procedures to assure due process when a student is charged with a violation of the Standards of Student Conduct. All proceedings held in accordance with these procedures shall relate specifically to an alleged violation of the established Standards of Student Conduct. These provisions do not apply to grievance procedures, or residence determination and other academic and legal requirements for admission and retention.

Disciplinary measures may be taken by the College independently of any charges filed through civil or criminal authorities, or both.

Copies of the Student Discipline Procedures are available in the Vice President of Student Services Office, Student Services Building, JH-512 or online at http://www.laccd.edu/Board/Documents/BoardRules/Ch.IX-ArticleXI.pdf.

CONFLICT RESOLUTION - INFORMAL PROCESS

The College has an approved student conflict resolution process. If there is a conflict or issue between a student and an instructor, the student is to complete the required form at the following link - http://college.lattc.edu/student-conflict-resolution/. The Department Chairperson over the area will respond to your request within two business days (Monday-Friday) regarding your situation.

If you have a non-classroom complaint please complete the online form at http://college.lattc.edu/studentservices/student-complaintgrievance-form. If the issue is not resolved informally then students can submit a formal grievance.

If your complaint is against:	**Contact:**
Faculty	Department Chair over the area
All other complaints	Campus Ombudsman (Juniper Hall - ST-517)

STUDENT GRIEVANCE PROCEDURES - FORMAL PROCESS

The purpose of the Student Grievance Procedures is to provide a prompt and equitable means for resolving student grievances, per Board Rules 91101-91102.

The student grievance procedure is designed to provide a prompt and equitable means for resolving student grievances, including but not limited to the grading process. The grievance procedure may be initiated by one or more students who reasonably believe he/she/they have been subject to unjust action or denied rights involving their status or privileges as students. It is the responsibility of the student(s) to submit proof of alleged unfair or improper action. Grievances pertaining to grades are subject to the CA Education Code Section 76224(a).

The procedures enumerated in Administrative Regulation E-55 shall be available to any student or applicant for admission, who believes a College decision or action has adversely affected his or her status, rights, and/or privileges as a student. The procedures shall include, but not be limited to, alleged violations of Title IX of the Higher Education Amendments of 1972 (and applicable regulations), and grievances relating to course grades to the extent permitted by Education Code Section 76224(a). Section 76224(a) provides:

"When grades are given for any course of instruction taught in a community college district, the grade given to each student shall be the grade determined by the instructor of the course, in the absence of mistake, fraud, bad faith, or incompetency, shall be final."

For additional information regarding the procedures for filing a student grievance, or for copies of the adopted Student Grade Grievance Procedures, contact the Campus Ombudsmen, Dean Vincent Jackson, Juniper Hall, ST-519.

Discrimination and Harassment Grievances

All programs and activities of the Los Angeles Community College District shall be operated in a manner which is free of discrimination on the basis of ethnic group identification, race, color, national origin, ancestry, religion, creed, sex, pregnancy, marital status, medical condition (cancer-related), sexual orientation, age, physical or mental disability (including AIDS) as defined by Section 504 of the Rehabilitation Act of 1973, or veterans status (Reference: Board Rule 1202).

Most complaints, grievances or disciplinary matters should be resolved at the campus level. This is the quickest and most successful way of resolving issues involving a California Community College (CCC). You are encouraged to work through the campus Conflict Resolution process (http://college.lattc.edu/student/services/student-conflict-resolution/) before escalating issues to the formal complaint process.

The specific rules and procedures for grievances relating to discrimination and harassment and for pursuing available remedies are incorporated in the LACCD Board Rules, Chapter XV, B.R. 1501-1522. Copies of the policy may be found on the LATTC Compliance Office website or obtained from the Director of Diversity Programs (http://www.laccd.edu/diversity), Gene Little at (213) 891-2317.

STUDENT RECORDS AND DIRECTORY INFORMATION

The Los Angeles Community College District, in compliance with Federal and State law, has established policies and procedures governing student records and the control of personally identifiable information. The Los Angeles Community College District recognizes that student records are a confidential matter between the individual student and the College. At the same time the District has a responsibility to fulfill public information needs (i.e., information about students participating in athletics, announcement of scholarships and awards, etc.). To meet this responsibility the District may release Directory Information unless the student states in writing that he or she does not want it released. The responsibility for carrying out these provisions is charged to the Dean of Admissions and Records, designated by the chief administrative officer on each campus. The Registrar may be contacted via the Office of Admissions. Copies of Federal and State laws and District policies and procedures are maintained by the Dean and are available for inspection and inquiry.

All student records maintained by the various offices and departments of the College, other than those specifically exempted by law, are open to inspection by the student concerned. The accuracy and appropriateness of the records may be challenged in writing to the Dean. A student has the right to receive a copy of his or her record, at a cost not to exceed the cost of reproduction. (Requests for transcripts should be made directly to the Office of Admissions & Records).

No student records, including Directory Information, will be released without the written consent of the student concerned except as authorized by law. A log of persons and organizations requesting or receiving student record information is maintained by the Registrar. The log is open to inspection only to the student and the community college official or his or her designee responsible for the maintenance of student records.

Directory Information includes the student's name, city of residence, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student. This information will not be released to anyone if the student marks "NO" on question "permission to Release Student Information" on the College Application or if the student marks "NO" on the College's Release of Directory Information form. This form is available in the Admissions and Records Office.

In addition, under federal law, the military is entitled to receive the following student information for recruitment purposes: student directory information as defined above, student address, telephone number, date and place of birth, and major field of study. This information will not be released to the military if the student marks "NO" on question "permission to Release Student Information" on the College Application or if the student marks "NO" on the College's Release of Directory Information form.

All inquiries regarding student records, Directory Information, and policies for records access, release, and challenge should be directed to the Dean via the Office of Admissions. Students have the right to file a complaint with the United States Department of Education concerning alleged violations of Federal and State laws governing student records.

STUDENT RIGHT-TO-KNOW

Los Angeles Trade-Technical College in compliance with the Federal Student Right-To-Know and Campus Security Act of 1990 provides campus crime statistics in the college schedule of classes and on the college website at http://college.lattc.edu/sheriff/crime-reporting-procedures/annual-security-report/

ACCESS TO CAMPUS FACILITIES

Most campus buildings are open from 6:30 a.m.. – 10:00 p.m. Monday through Thursday. Persons may be asked to produce identification if there is a question regarding their authorization to be in a certain area. Campus buildings are normally locked from 5:30 p.m. Friday to 6:00 a.m. Monday. The college Sheriff will open specific areas for Saturday classes and special events.

POLICY FOR RESPONSIBLE COMPUTING USE

The Los Angeles Community College District and Los Angeles Trade-Technical College provide computing facilities (computers, networks, software and computerized records) for use by students and college personnel to facilitate education, research, academic development and service to the public. Each individual user of these facilities is expected to do so responsibly, to use computing resources ethically, to respect the rights and privacy of others, and to use computing facilities so as not to violate copyright or patent protections or license agreements.

College computing facilities are not to be used for commercial purposes or non-College related activities without written authorization from the College. The College reserves the right to limit, restrict, or extend computing privileges and access to its information resources as it deems necessary to ensure the rules and regulations of the District and College are followed.

Students receive computer lab user guidelines as part of their course information. To obtain more specific information about College policies and standards for computing use, or to obtain a copy of the full text of Los Angeles Community College Administrative Regulation, B27 http://www.laccd.edu/About/Documents/AdministrativeRegulations/B-27.pdf, use of District and College Computing Facilities, contact the Administrative Services Office JH-532, (213) 763-7040.

4. Academic Standards and Policies

ATTENDANCE AND ENROLLMENT

ATTENDANCE

Only students who have been admitted to the college and are in approved active status may attend classes.

Students should attend every meeting of all classes for which they register. To avoid being dropped from class, students should contact the instructor when they are absent for emergency reasons.

LATTC Student Attendance Policy

1. An instructor may exclude a student who is absent for more hours than the class meets per week or 20% of the total class hours.
2. In addition, an instructor may equate three or more late arrivals or early departures from class as an absence for purposes of class attendance.
3. Student attendance expectations including this policy must be clearly indicated on the Course Syllabus. Instructors must apply their attendance policy in a consistent manner.

Please Note: Students who are pre-registered in a class and miss the first meeting may lose their right to a place in the class.

Students are responsible for dropping a class that they stop attending. If the class is not dropped, the student may receive an "F" in that class and be responsible for enrollment fee. Any drops or exclusions that occur between the 4th week and the 12th week will result in a "W" on the student's record. Drops are not permitted beyond the 12th week. A grade ("A", "B", "C", "D", "F", "INC", "P", or "NP") will be assigned to students who are enrolled past the 12th week even if they stop attending class. For further details, refer to "W" section of "Grading Symbols and Definitions."

FINAL EXAMINATIONS

Final examinations are required in all courses; no student will be excused.

UNITS OF WORK/STUDY LOAD

Maximum and minimum unit requirements may apply, as follows:

Unit Maximum

- The maximum study load is 19 units during a regular semester, 9 units in two summer sessions, and 7 units during winter session. The normal class load for students in the Fall or Spring semester is from 12 to 18 units a semester for full-time students. Students who desire to take 19 1/2 or more units must obtain approval from the Registrar through a petition.
- Those students who will be employed while attending college should consider reducing their classes accordingly. It is suggested that those students who are employed full-time should enroll in no more than one or two classes or 9 units maximum.

Full-Time Definition

- A program of study 12 units or more (4 units or more in Summer and Winter intersession) is considered a full time study program.

Minimum study loads for specific programs:

- Veterans and veterans' dependents: 12 units
- Social Security benefits: 12 units
- Foreign Students (F-1 visa): 12 units
- Athletes: 12 academic units

The Veterans Administration uses the following definition for eligibility:

- full-time benefits: 12 or more units
- 3/4-time benefits: 9 — 11 units
- 1/2-time benefits: 6 — 8 units
- less than 1/2 time: 3 — 5 units (Reservist and National Guard)

ACADEMIC STANDARDS

ACADEMIC PROBATION

Academic Standards - Probation

The following standards for academic and progress probation shall be applied as required by regulations adopted by the Board of Governors of the California Community Colleges. Probation shall be determined based on all student course work dating from Fall, 1981; course work completed prior to Fall of 1981 is excluded from probation calculations. A student shall be placed on probation if any one of the following conditions prevail:



a. **ACADEMIC PROBATION**. The student has attempted a minimum of 12 semester units of work and has a cumulative grade-point average less than a "C" (2.0).

b. **PROGRESS PROBATION**. The student has enrolled in a total of at least 12 semester units and the percentage of all units in which a student has enrolled and for which entries of "W" (Withdrawal), "I" (Incomplete), and "NP" (No Pass) are recorded reaches or exceeds fifty percent of all units attempted.

c. **TRANSFER STUDENT**. The student has met the conditions of the above "a" or "b" at another college within the Los Angeles Community College District.

Units Attempted

"Units Attempted," for purposes of determining probation status only, means all units of credit in the current community college of attendance for which the student is enrolled.

REMOVAL FROM PROBATION

A student shall be removed from probation upon meeting the criteria specified in this section.

Academic Probation

A student on academic probation for a grade point deficiency shall be removed from probation when the student's cumulative grade-point average is 2.0 or higher.

Progress Probation

A student on progress probation because of an excess of units for which entries of No-Pass (NP), Incomplete (I), and/or Withdrawal (W) are recorded shall be removed from probation when the percentage of units in this category drops below fifty percent (50%).

ACADEMIC STANDARDS - DISMISSAL

A student shall be subject to dismissal and subsequently be dismissed under the conditions set forth within this section. Dismissal shall be determined based on student course work dating from Fall, 1981; course work completed prior to Fall of 1981 is excluded from dismissal calculations.

Academic Probation

A student who is on academic probation shall be subject to dismissal if the student has earned a cumulative grade-point- average of less than 2.0 in all units attempted in each of 3 consecutive semesters. A student who is on academic probation and earns a semester grade-point-average of 2.0 or better shall not be dismissed as long as this minimum semester grade-point-average is maintained.

Progress Probation

A student who is on progress probation shall be subject to dismissal if the cumulative percentage of units in which the student has been enrolled for which entries of No-Pass (NP), Incomplete (I), and/or Withdrawal (W) are recorded in at least three consecutive semesters reaches or exceeds fifty percent (50%). A student who is on progress probation shall not be dismissed after a semester in which the percentage of units in which the student has been enrolled for which entries of "W," "I," and "NP" are recorded is less than fifty percent (50%).

DISMISSAL

A student who is subject to dismissal, and who has not been continued on probation through the appeal process, shall be notified by the College President, or designee, of dismissal which will become effective the semester following notification. Dismissal from any one college in the District shall disqualify a student from admission to any other college in the District.

Appeal of Dismissal

A student who is subject to dismissal may appeal to the College Dismissal Committee by submitting a Return From Disqualification Petition to the College Admissions Officer (see a counselor to initiate petitions). Dismissal may be postponed and the student continued on probation if the student shows significant improvement in academic achievement but has not been able to achieve to a level that would meet the requirements for removal from probation.

Readmission After Dismissal

A student who has been dismissed may request reinstatement after two semesters have elapsed. The student shall submit a written petition requesting Return From Disqualification in compliance with College procedures. The College Dismissal Committee will meet in the first week of August and the first week of December each year to review these petitions. Readmission may be granted, denied, or postponed subject to fulfillment of conditions prescribed by the college.

PLEASE NOTE: Students may file a Reinstatement Petition at any of the nine LACCD colleges that they are attempting to enroll in for the term.

ACADEMIC RENEWAL

Students may petition for an academic renewal action in order to alleviate substandard academic performance under the following conditions:

- Students must have achieved a grade point average of 2.5 in their last 15 semester units, or 2.0 in their last 30 semester units completed at any accredited college or university, and
- At least one calendar year must have passed since the course work to be removed was completed.

Granted, academic renewal shall result in:

- Eliminating up to 30 semester units of coursework taken within the Los Angeles Community College District from consideration in the student's cumulative grade point average, and
- Annotating the student academic record to note which courses have been removed through academic renewal. Academic renewal actions are irreversible.

(Board Rule 6705)

WITHDRAWING FROM A CLASS *IS A SERIOUS DECISION*

New statewide regulations are now in effect that change the way students should think about enrolling in, and then withdrawing from classes.

Community colleges get most of their money from the state based on enrollment. Your fees cover only a fraction of the cost. Each class you enroll in results in compensation to the college is funding from the state, and that is how the college stays open.

In the past a student could withdraw from the same course up to 4 times, and in addition repeat the course up to two times to try to improve a grade of D or F. In other words, you could get a "W" in the same course 4 times and complete the course up to three times until attaining a grade of "C" or better.

AS OF JULY 1ST, 2012, A WITHDRAWAL "W" COUNTS AS AN ATTEMPT AND YOU ONLY GET THREE ATTEMPTS AT ANY ONE COURSE.

After that, the state won't pay the college for you to take the course again.

What this means for LATTC students

- Students who drop or are excluded after the last day to drop without a grade of "W" will have a "W" appear on their transcript. The "W" will count as an attempt for that course.
- A course on a student's transcript which currently shows a recorded "W" counts as an attempt for that course.
- Students will not be allowed to register for any course within the LACCD if there are three recorded attempts for that course in any combination of W, D, F, or NP grades.
- Add permits for a course within the LACCD will not be processed if there are three recorded attempts for that course in any combination of W, D, F, or NP grades.
- For courses specifically designated as "repeatable," students may repeat up to three times. (See Title 5 California Code of Regulations sections 55040, 55041, 58161).
- You may petition through Admissions and Records for one more try citing "extenuating circumstances;" however, for the most part the only extenuating circumstances that are allowed are military deployment or natural disaster.
- If your registration is blocked because of this rule; getting an add permit will not help.

WHAT YOU SHOULD DO

- **If you must drop a course, drop before the specified deadline for dropping classes without a grade of "W".**
- **Be sure you're academically ready for classes in which you enroll.**
- **See a counselor to help you make good decisions about your educational plan.**

Academic and Administrative Petitions

Students should file an Academic Petition form when they are requesting assistance with: course repetition, course substitution, enrollment in more than 19 units, catalog rights and other related concerns. The petition forms may be obtained from the Counseling Office. Petitions must be signed by a counselor before submittal to the Admissions and Records.

Students should file an Administrative Petition form when they are requesting assistance with academic renewal, return from disqualification (dismissal), and other related concerns. Administrative Petition forms are available in the Office of Admissions and Records, JH-Lobby and submitted in the same office. When filing for return from disqualification, the petition forms must be reviewed and signed by the counselors before submittal to Admissions and Records Office. Specific petition forms are available for requesting permission for: grade changes, Credit By Examination, and lining out non-passing grades that have been successfully repeated.

CREDITS AND GRADES

CREDIT FOR ADVANCED PLACEMENT (AP)

The College offers credit for scores of 3 or better on a variety of College Board Advanced Placement Exams. Students should file an Academic Petition in the Admission Office, JH-Lobby and have an official copy of their test results sent to the college.

COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)

The college grants credit for scores of 50 points (or 50%) or better on a variety of CLEP examinations. Students should contact counseling (JH-416) or Admissions (Juniper Hall, room ST-416) for additional information.

CREDIT BY EXAMINATION

A College President may designate department approved courses listed in the college catalog wherein any student who satisfies the following requirements may be granted credit by examination:

- Be currently registered and in good standing (i.e., the student is not on academic or progress probation).
- Have completed 12 units within the Los Angeles Community College District. Individual colleges may develop and publish policies to exempt students from this requirement. Such policies shall be developed in accordance with the provisions of Chapter XVIII of the Board Rules -- Academic Senate and the Board of Trustees Shared Governance Policy.
- Is not currently enrolled in, or have completed a more advanced course in this discipline

Maximum credit allowable for credit by examination

The maximum number of units allowable for credit by examination for the Associate Degree shall be fifteen (15) units. Credit by examination transferred from other institutions is counted towards this maximum.

Limitations

Credits acquired by examination are not applicable to meeting such unit load requirements as Selective Service deferment, Veteran's or Social Security benefits.

Recording of Credit

a. If a student passes the examination, the course shall be posted on his/her cumulative record indicating "Pass" in the "Grade" column.

b. The number of units of credit recorded for any course may not exceed those listed in the college catalog.

Acceptance Towards Residence

Units for which credit is given pursuant to the provision of this section shall not be counted in determining the 12 units of credit in residence requirement.

Recording of Grade

Students who successfully pass an approved examination shall have the record of such examination entered on their record as "P" as provided by the District Grading Symbols and Definitions Policy. The student's records shall also be annotated "Credit by Examination".

Designated Courses - Credit By Exam

Automotive Collision Repair	all courses
Automotive and Related Technology	all courses
Astronomy	1
Baking, Professional	111, 112
Building Construction Techniques	all courses
Cabinetmaking and Millwork	all courses
Carpentry	all courses
Chemical Technology	113, 123, 141
Computer Applications/Office Technologies	2
Computer Information Systems	700, 701
Cosmetology	121, 122
Culinary Arts	111, 112, 121, 122
Diesel and Related Technologies	all courses
Drafting	all courses
Electrical Construction and Maintenance	all courses
Electronics Technology	all courses
Environmental Science	1
Fashion Design	111, 112, 120, 122, 222, 223, 224, 225, 226, 227, 228, 229, 236, 237, 238, 239, 240, 241
Fashion Merchandising	1, 10
Geography	1

Geology	1
Health Occupations	17
History	11, 12
Machine Shop-CNC	all courses
Mathematics	all courses
Nursing, Registered	131, 132
Office Machines	2
Plumbing	all courses
Refrigeration and Air Conditioning Mechanics	all courses
Sign Graphics	all courses
Solid Waste Management Technology	all courses
Street Maintenance	all courses
Supply Water Technology	all courses
Tailoring	all courses
Visual Communications	all courses
Waste Water Technology	12, 13, 14, 16, 17, 18
Welding Gas: Electric	all courses

PASS/NO-PASS OPTION

The College President may designate courses in the College Catalog wherein all students are evaluated on a "Pass/No-Pass" basis or wherein each student may elect on registration or no later than the end of the first 30% of the term, whether the basis of evaluation is to be "Pass/No-Pass" or a letter grade. These courses will be noted in the College Catalog as being eligible for the Pass/No-Pass Option.

1. **USAGE FOR SINGLE PERFORMANCE STANDARD.** The Pass/No-Pass grading system shall be used in any course in which there is a single satisfactory standard of performance for which unit credit is assigned. A grade of Pass (P) shall be assigned for meeting that standard, and a grade of No-Pass (NP) shall be assigned for failure to do so.
2. **ACCEPTANCE OF CREDITS.** All units earned on a "Pass/No-Pass" basis in accredited California institutions of higher education or equivalent out-of-state institutions shall be counted in satisfaction of community college curriculum requirements.
3. **RECORDING OF GRADE.** A student who is approved to be evaluated on the "Pass/No-Pass" basis shall receive both course credit and unit credit upon satisfactory completion of the course. Satisfactory completion for credit is equivalent to the grade of "C" or better. A student who does not perform satisfactorily will be assigned a "No-Pass" (NP) grade.
4. **GRADE POINT CALCULATION.** Units earned on a "Pass/No-Pass" basis shall not be used to calculate grade-point averages. However, units attempted for which "No-Pass" (NP) is recorded shall be considered in probationary and dismissal procedures.
5. **STANDARDS OF EVALUATION.** The student who is enrolled in a course on a "Pass/No-Pass" basis will be held responsible for all assignments and examinations required in the course and must meet the standards of evaluation which are identical for all students.
6. **CONVERSION TO LETTER GRADE.** A student who has received credit for a course taken on a "Pass/No-Pass" basis may not convert this credit to a letter grade.
7. **COURSE REPETITION.** A student who has received a grade of "No-Pass" (NP) may repeat the course by meeting the requirements set forth by the District Course Repetition to Improve Substandard Grades Policy.

Designated Courses - Pass/No-Pass

Architectural Technology	all courses
Architecture	all courses
Astronomy	1, 2
Biology	3, 6, 7, 20, 23
Chemical Technology	all courses
Chemistry	all courses
Computer Applications & Office Technology	64
Cooperative Education	all courses
Developmental Communications	23, 35
Electronics Communications	all courses
Electronics Technology	all courses
Geology	1, 6
Labor Studies	all courses
Learning Skills	all courses
Mathematics	all courses
Microbiology	all courses
Microcomputer Technician	all courses
Physics	all courses
Solid Waste Management	all courses
Supply Water Technology	all courses
Waste Water Technology	all courses

Credit for Military Service Training

Students who are currently serving in or have served in the military service, should, after successful completion of at least one course with the Los Angeles Community Colleges, request an evaluation of credit earned through military service training schools and/or military occupational specialties.

Credit for Law Enforcement Academy Training

Credit for basic recruit academy training instructional programs in Administration of Justice or other criminal justice occupations shall be granted as follows:

a. Credit will be given for training from institutions which meet the standards of training of the California Peace Officers Standards and Training Commission.
b. A single block of credit will be given and identified as academy credit.
c. One (1) unit of credit may be granted for each 50 hours of training, not to exceed ten (10) semester units or their equivalent. Credits granted by an institution of higher education for basic recruit academy training, under the above provisions, shall not be identified as equivalent to any required course in the major.

COURSE REPETITION

Course Repetition to Improve Sub-standard Grades

No specific course or categories of courses shall be exempt from course repetition. This policy applies to courses taken at colleges within the Los Angeles Community College District. Courses completed through the provisions of Board Rule 6704 - Credit by examination may not be used to remove a substandard grade.

First Course Repetition to Remove a Sub-standard Grade

Upon completion of a repeated course the highest grade earned will be computed in the cumulated grade point average and the student's academic record so annotated. All grades awarded will show on student's permanent records to insure a true and complete academic history. **It is the student's responsibility to file a petition for removal of the substandard grade.**

Second Course Repetition to Remove a Sub-standard Grade

Upon completion of the second repetition, the grade used in computing the student's cumulative grade point average shall be the highest grade earned, and the student's record so annotated. The two lower substandard grades will not be used in the computation of the grade point average. All grades awarded will show on student's permanent records to insure a true and complete academic history. **It is the student's responsibility to file a petition for removal of the substandard grade.**

Third Course Repetition to Remove a Sub-standard Grade

A student may repeat the same course for a third time provided the student has:

1. Received two substandard grades for the same district course
2. Filed a petition specifying the course(s) to be repeated and stating the extenuating circumstances upon which the petition is based. "Extenuating circumstances" are verified cases of accidents, illness, or other circumstances beyond the control of the student.
3. The petition is approved by the Department Chairperson, if denied, petition is forwarded to Dean for review.

Upon completing the third repeat, the grade earned will not be used in the computation of the grade point average. All grades awarded will show on student's permanent records to insure a true and complete academic history.

Course Repetition: Special Circumstances

Repetition of courses for which substandard work (less than "C") has not been recorded shall be permitted only upon advance petition of the student and with written permission of the College President or designee based on a finding that circumstances exist which justify such repetition. In such repetition under special circumstances, the student's permanent academic record shall be annotated in such a manner that all work remains legible. Grades awarded for repetition under special circumstances shall not be counted in calculating a student's grade-point average.

NO FOURTH REPEAT UNLESS MILITARY SERVICE OR NATURAL DISASTER.

Campus Procedure

Student will be notified of an Administrative Exclusion from a class if the student is enrolled in a class under above circumstances and has not filed a petition in advance and received approval. In this case the student may file a petition to repeat under special circumstances in the Student Services Building, JH-Lobby following receipt of a Drop notice.

Course Repetition and Activity Repetition

Certain courses in the Catalog may be repeated for additional unit credit. These courses, marked "RPT" in the Course Section of the Catalog, allow the student an expanded educational experience each time the student enrolls in the course. Enrollment in these courses is limited in any similar activity to a maximum of three repeats for a total of four (4) enrollments, regardless of the repeatability of individual courses. The activity limitation also applies to courses which are not repeatable in themselves but for which similar activities exist. For example, there are several similar course titles in Art, Music, Theater, and Kinesiology which are considered to be the same activity. A student may enroll four times in courses which are considered to be the same activity, such as twice in Theater 279, Musical Theater (RPT 3), and twice in Theater 280, Musical Theater Workshop (RPT 3). In addition students may repeat Cooperative Education 395 twice and Cooperative Education 941 up to four times. Any combination may be used as long as four enrollments in one activity is not exceeded.

This activity enrollment limitation begins with the Fall 1983 term. Excess enrollment will result in administrative exclusion. Consult a counselor for the latest restricted activity enrollment list.

NOTE: Whenever the student's record is reviewed for the purpose of determining his or her unit credits, all of the student's record is reviewed, not just the course work since the beginning of Fall 1983.

PETITIONS

Students should file a petition form when they are requesting assistance with: academic renewal, course substitution, enrollment in more than 19 units, return from disqualification (dismissal), and other related concerns. Specific petition forms are available for course repetition to improve substandard grades, grade change, and lining out successfully repeated courses. The petition forms may be obtained in the Office of Admissions and Records, room, JH-Lobby, and filed in the same office. Students must consult a counselor, advisor, mentor or Department Head when filing a petition.

GRADING SYMBOLS AND DEFINITIONS

Only the symbols in the grading scale given in this section shall be used to grade all courses offered in fulfillment of the requirements for an associate or baccalaureate degree, a certificate, diploma, or license. Grades shall be averaged on the basis of the point equivalencies to determine a student's grade-point-average, using the following evaluative symbols:

Symbol	Definition	Grade Point
A	Excellent	**4**
B	Good	**3**
C	Satisfactory	**2**
D	Passing, less than satisfactory	**1**
F	Failing	**0**
I	Incomplete	
P	Pass (at least equal to a "C" grade or better - units awarded are not counted in GPA)	
P-CRX	Credit by exam	
NP	No-Pass (equal to a "D" or "F" grade – units are not counted in GPA) (P and NP grades may be given only in courses authorized by the District Pass/No-Pass Option and Credit by Examination Policies.)	

Grade Point Average (GPA), cumulative and semester, may be calculated by dividing the total Grade Points by the total units attempted. (The symbol for Units Attempted is U-A, the symbol for grade points is G-P). The following non-evaluative symbols may be entered on a student's record:

Symbol Definition

(I) Incomplete

Incomplete academic work for unforeseeable emergency and justifiable reasons at the end of the term may result in an "I" symbol being entered in the student's record. The condition for removal of the "I" shall be stated by the instructor in a written record. This record shall contain the conditions for removal of the "I" and the grade assigned in lieu of its removal. This record shall be given to the student, with a copy on file in the college Admission Office until the "I" is made up or the time limit has passed. A final grade shall be assigned when the work stipulated has been completed and evaluated, or when the time limit for completing the work has passed. The "I" symbol shall not be used in calculating units attempted nor for grade points. **THE "I" MUST BE MADE UP NO LATER THAN ONE YEAR FOLLOWING THE END OF THE TERM IN WHICH IT WAS ASSIGNED.** The student may petition the instructor for a time extension due to unusual circumstances. Note: Courses in which the student has received an Incomplete ("I") may not be repeated unless the "I" is removed and has been replaced by a grade of "D" or "F". This does not apply to courses which are repeatable for additional credit.

(IP) In Progress

The "IP" symbol shall be used only in those courses which extend beyond the normal end of an academic term. "IP" indicates that work is "in progress," but that assignment of a substantive grade must await its completion. The "IP" symbol shall remain on the student's permanent record in order to satisfy enrollment documentation. The appropriate evaluative grade and unit credit shall be assigned and appear on the student's record for the term in which the required work of the course is completed. The "IP" shall not be used in calculating grade-point averages. If a student enrolled in an "open-entry, open-exit" course is assigned "IP" at the end of an attendance period and does not complete the course during the subsequent attendance period, the appropriate faculty will assign an evaluative symbol (grade) as specified above to be recorded on the student's permanent record for the course.

(W) Withdrawal

Withdrawal from a class or classes shall be authorized through the last day of the twelfth week of instruction or 75% of the time the class is scheduled to meet, whichever is less. No notation ("W" or other) shall be made on the record of a student who withdraws during the first four weeks, or 30% of the time the class is scheduled, whichever is less. Withdrawal between the end of the fourth week (or 30% of the time the class is scheduled to meet, whichever is less) and the last day of the twelfth week of instruction (or 75% of the time the class is scheduled to meet, whichever is less) shall be authorized after informing the appropriate faculty. A student who remains in class beyond the twelfth week or 75% of the time the class is scheduled shall be given a grade other than a "W".

STUDENT GRADE CHANGE PETITIONS

The instructor of the course shall determine the grade to be awarded to each student. The determination of the student's grade by the instructor is final in the absence of a mistake or fraud. Petition for grade change forms can be obtained and filed in the Office of Admissions and Records, JH-Lobby.

A grade change petition can be submitted if you feel an error has been made on your record. These petitions must be approved by the instructor of the course specified, and must be submitted within one year after the grade is assigned.

STUDENT GRADE GRIEVANCE PROCEDURES

Education Code Section 76224(a) defines the circumstances under which a student may initiate a grade grievance. Section 76224(a) provides: "When grades are given for any course of instruction taught in a community college district, the grade given to each student shall be the grade determined by the instructor of the course and the determination of the student's grade by the instructor, in the absence of mistake, fraud, bad faith, or incompetence, shall be final." For additional information, contact the contact the College Ombudsperson, Vincent Jackson in ST-519.

STATE COMPLAINT PROCESS

Final federal regulations published October 29, 2010, and effective July 1, 2011,included in the State Authorization section of the package a new requirement that eligible institutions have and disclose a state administered complaint process (HEA Title IV, CFR, Sections 600.9 and 668.4(3)(b)). The intention behind the new requirement is that students and others have a method and process outside of the institution that takes, investigates and responds to complaints regarding the institution.

For more info. regarding the State Complaint Process, please go to http://californiacommunitycolleges.cccco.edu/ComplaintsForm.aspx.

TRANSCRIPTS

Upon written request of the student, a copy of the student's academic record shall be forwarded to the student or his or her designated addressee in ten (10) working days or less by U.S. mail or other responsible forwarding agency.

A student or former student shall be entitled to two free copies of the transcript of his or her record or to two free verifications of the student's records or combination of both. Additional copies shall be made available to the student, or to an addressee designated by the student at a cost of **$3.00 each**. Students may request same day processing to expedite their requests for an additional fee of **$7.00 per transcript.** These transcripts are NOT sent via Fed Ex or special postage service; they are sent only via U.S. mail. ***Transcripts from another institution are not available for copying.***

The student's transcript may be withheld if 1) any library books or other library materials are charged to the student and are unreturned, or 2) there are any unpaid fees, charges or other obligations due to the College or District. The transcript may be withheld until these obligations of the student are discharged.

Incoming transcripts: Official academic transcripts submitted to the college will only be honored if they are addressed and directly mailed from the institution to the Los Angeles Trade-Technical College, Admission Office.

PREREQUISITE POLICY

Many courses listed in the class schedule will indicate suggested prerequisite, co-requisite/concurrent enrollment or recommended preparation/advisory listed after the name of the course. These recommendations were made after careful consideration by the faculty of that department. The Los Angeles Community College District has adopted a policy based upon a model developed by the State Chancellor's Task Force in conjunction with the State Academic Senate and Chief Instructional Officers and based upon Title V Article 2.5 Section 55200 and Article 4 Section 55530 of the Matriculation Regulations. In other words, your success is our primary goal. Your rights entitle you to file a "Challenge Form" to challenge any prerequisite if you believe one or more of the following:

1. I have the knowledge, ability or skill to succeed in the course despite not meeting the prerequisite or co-requisite.
2. I will be subject to undue delay in attaining the goal of my educational plan because of the enrollment limitation, or because the prerequisite or co-requisite course has not been made reasonably available.
3. The prerequisite or co-requisite has not been established in accordance with applicable college policies and procedures.
4. The prerequisite or co-requisite is in violation of Title 5, Section 55200-55202 of the California Code of regulations.
5. The prerequisite or co-requisite, or enrollment limitation is either unlawfully discriminatory or is being applied in an unlawfully discriminatory manner.
6. The basis upon which the college established the enrollment limitation does not exist. Note: You have the right to participate in all activities related to matriculation components whether eligible for exemption or not. The matriculation program is our plan to ensure your success. For more information contact the Assessment Center, MA-001, 213-763-5339.

Challenge Process Information:

1. Complete the Challenge Application; provide an explanation and supporting documentation for your reason to challenge. You will need to present a valid photo ID to the Assessment proctor at the time of challenging.
2. Complete the Subject Exam of the prerequisite course you are challenging. This exam is to be completed in the Assessment Center in MA-001.
3. This is a one-time test. You will not be given any credit or grade for successfully passing the Challenge Exam. You will need to receive at least 70% to pass. If you are challenging several levels within the same subject you will need to pass the first test before you can challenge the next level.
4. Once you have completed the Challenge Exam it will be reviewed for approval by the Challenge Committee.
5. The Matriculation Department along with the committee has five business days (working) to notify you of your results. The committee consists of the following: Matriculation/Student Services Dean, General Counselor, and a Faculty of the subject you are challenging. Once your challenge results are in, you will be notified by phone or in-person. You will also receive a copy of the challenge application for your records.
6. Deadline to challenge: If you plan to enroll for the course in the most current term you will need to complete the challenge exam one month before the semester begins. Otherwise, you will need to wait for the next semester to enroll in the course.

Assessment Testing Policy

All students that have taken the Assessment test will be allowed to retest once a term, not to exceed 4 times a year; as long as they have not completed a course in either the corresponding Math or English course sequence. All test scores are valid for 2 years.

For more information contact Bridges to Success MA -105, 213-763-5560 or the Assessment Center in MA-001 at 213-763-5339.

ACADEMIC HONORS

DEAN'S HONOR LIST

Each semester (Fall and Spring) - an Honor List is composed of students who have satisfactorily completed 12 or more units in a given semester with a 3.5 grade point average OR have completed 6 to 11.5 units in a semester with a 3.5 grade point average and have completed a cumulative total of 12 or more units with a 3.5 grade-point average in all work attempted. In recognition of this scholastic accomplishment, each student is honored and awarded a Dean's Honors Awards Certificate. For more information visit RH-105, or call 213-763-7200.

PRESIDENT'S HONOR AWARD

Students who have met the requirements for the Dean's Honor List for three consecutive semesters qualify for the President's Honor Award.

DISTINGUISHED GRADUATE AWARD

The Distinguished Graduate Award is one of the most significant and prestigious honors available to students at Los Angeles Trade-Technical College. This honor is bestowed on graduates during the College Commencement exercises. In order to be considered for the award, a candidate must:

- Petition for the Associate Degree.
- Achieve a grade-point-average of 3.70 or better in all college work completed at the time of petition, and is in good standing.
- Complete fifty percent of all units utilized for the award within the Los Angeles Community College District.
- Achieve a grade-point-average of 3.70 or better in all college work completed at the end of the Fall semester if graduation requirements will not be completed until the end of the Spring semester.

Students who have earned an Associate Degree or equivalent or advanced degrees are not eligible for the award.



5. Financial Aid

FINANCIAL AID

Phone: (213) 763-7082
Email: tfinaid@lattc.edu
Location: Juniper Hall, JH-214

FINANCIAL AID STAFF ASSISTED LAB
Location: Juniper Hall, JH-314

GOAL

The goal of the Financial Aid Program is to provide access to various types of post-secondary education for those who otherwise would be unable to start or continue their schooling and/or training.

FINANCIAL AID - WHAT IS IT?

Financial Aid is funding provided by the federal and state governments, and private sources in the form of grants, scholarships, loans and employment. These funds are available to make it possible for students to continue their education beyond high school even if they and/or their family cannot meet the full costs of the post secondary school they choose to attend. The basis for such programs is the belief that students and their families have the primary responsibility to meet educational costs. Financial aid is meant to supplement your existing income and/ or financial resources and should not be depended upon as your sole mean of income to support all educational and other non-educational expenses.

WHO CAN APPLY?

To be considered for financial aid, a student must meet the following minimum requirements:

- Be a U.S. citizen or an eligible non-citizen. An eligible non-citizen is a U.S. permanent resident who has documentation from the Department of Homeland Security verifying that his/her stay in the U.S. is for other than a temporary purpose.
- For state aid eligibility, be either a 1) U.S. citizen or eligible non citizen, or 2) be classified as an AB 540 student by Admissions & Records Office.
- Demonstrate financial need.
- Have a high school diploma or a recognized equivalent such as a General Education Development (GED) certificate, passed a high school proficiency examination, or completed a high school education in a homeschool setting. (Students who were enrolled prior to July 1st, 2012 who do not meet this requirement should check with their Financial Aid Office for alternative qualifying options.)
- Be enrolled as a regular student in an eligible program.
- Be making Satisfactory Academic Progress in a course of study leading to a Certificate, AA or AS Degree, or Transfer to a Baccalaureate Degree Program.
- Must not be in default on a Federal Perkins Loan (formerly National Direct Student Loan), Stafford Loan (formerly Guaranteed Student Loan (GSL), Supplemental Loans to Assist Students (SLS), or Direct Loan at any school the student attended.
- Must not owe an overpayement on a Federal Pell Grant, Federal Supplemental Educational Opportunity Grant (FSEOG) Academic Competitiveness Grant (ACG), SMART Grant, Iraq and Afghanistan Service Grant or Leveraging Educational Assistance Partnership (LEAP) Grant.
- Register with the Selective Service if required to do so.
- Have a valid Social Security Number (SSN) for federal aid eligibility.
- Have a valid State picture ID or Driver License.
- Must have resolved all drug conviction issues.

WHEN TO APPLY

- January 1 of each calendar year is the beginning of the application period for Federal and State financial aid.

PRIORITY and DEADLINE DATES:

- March 2 - CAL GRANT DEADLINE for both high school seniors and community college students
- September 2 – Second deadline for community college students to apply for CAL GRANT B
- June 30 is the deadline for filing a Free Application for Federal Student Aid (FAFSA) for the previous year.
- June 1 – is the Priority date for Fall & Spring

Students should continue filing their Free Application for Federal Student Aid (FAFSA) even if they miss the PRIORITY DATE because Pell Grants, enrollment fee waivers, Federal Work Study, and loans will continue to be awarded to qualified applicants throughout the academic year if funds are available.

HOW TO APPLY

Students can apply for the Free Application for Federal Student Aid (FAFSA) or the CA Dream Act Application online. The web-site for the application is www.fafsa.gov for the FAFSA or at dream.csac.ca.gov for the CA Dream Act application. The financial aid office staff provides application assistance to students at the Financial Aid computer lab located at JH-314. Make sure you enter the school code: 001227 on your application. Students should check the Student Information System (SIS) a week after completing the FAFSA to check if additional documents are required. An award letter will be available for viewing at the SIS and financial aid disbursements will be deposited into the student's myLACCDcard Debit Card or electronically transferred to the student's account after the application is completely processed.

FINANCIAL AID PROGRAMS

The Financial Assistance Programs available at Trade Tech are:

- FEDERAL PELL GRANT
- FEDERAL SUPPLEMENTAL OPPORTUNITY GRANT (FSEOG)
- FEDERAL WORK STUDY (FWS)
- FEDERAL PERKINS LOAN
- FEDERAL DIRECT LOAN
- SCHOLARSHIPS
- BOARD OF GOVERNORS FEE WAIVER
- CALIFORNIA STATE GRANTS (CAL GRANTS)

  The California Student Aid Commission provides grant programs for undergraduate students. To qualify for these programs, a student must be a California resident, be a US citizen or permanent resident, possess a Social Security Card, and attending an eligible college in California. Students can receive only one CAL Grant at a time. AB540 students are eligible to apply for CAL Grants and other California state funded grants by completing the Dream Act Application (caldreamact.org).

Students can apply for one or more of these programs by filing a Free Application for Federal Student Aid (FAFSA). Campus scholarships and the Board of Governors Fee Waiver require separate applications.

ENROLLMENT FEE ASSISTANCE

Students are encouraged to complete the Free Application for Federal Student Aid (FAFSA) so they will be considered for all federal and state financial aid programs. The Board of Governors' Enrollment Fee Waiver is offered by the California Community Colleges. Students who had a fee waiver for the 2014-2015 academic year must submit a new application for the new academic year which includes Summer session 2015, Fall semester 2015, Winter session 2016, and Spring 2016.

Students who qualify under AB540 should complete the California Dream Act available at caldreamact.org to be eligible for California State financial aid programs.

There are three ways to qualify:

Method A (BOG A) — *Proof of these benefits is required.*
For families or students who receive TANF/CALWORKS, General Relief (GR), Supplemental Security Income (SSI/SSP).

Method B (BOG B) — *Financial documentation required.*
For families or students whose family income and size fall within the specified standards:

BOARD OF GOVERNORS FEE WAIVER PROGRAM (BOGFW-B)

Special Classification Enrollment Fee Waivers:

You are also eligible for a BOGG if:

- A dependent of a deceased or disabled veteran of the U.S. Military
- A recipient of a Congressional Medal of Honor or a child of a recipient
- A dependent of a victim of the September 11, 2001 terrorist attack
- A dependent of a deceased law enforcement/ fire suppression person killed in the line of duty.

Method C (BOG C)

Students who do not meet the above criteria, but have financial need as established by the College Financial Aid Office, may also be eligible for an Enrollment Fee Waiver. To qualify, students must complete a Free Application for Federal Student Aid (FAFSA) or **California Dream Act Application (for AB 540 students)**. Processing of this type of fee waiver takes approximately five working days.

There are no fee waivers for audited classes. Other financial aid may be available to students who meet the qualification requirements. Students with questions concerning financial aid eligibility should contact the College Financial Aid Office, JH-214

Special Classification Enrollment Fee Waivers:

You are also eligible for a BOG if:

- A dependent of a deceased or disabled veteran of the U.S. Military
- A recipient of a Congressional Medal of Honor or a child of a recipient
- A dependent of a victim of the September 11, 2001 terrorist attack
- A dependent of a deceased law enforcement/ fire suppression person killed in the line of duty.

CONSORTIUM AGREEMENT

If you are attending a college within the Los Angeles Community College District (LACCD), and are taking classes at a college outside the LACCD and wish to obtain approval to receive financial aid for those classes, you must complete a Financial Aid Consortium Agreement Form which is available at the Financial Aid Office. The approval of the Consortium Agreement is determined by the Financial Aid Office.

SCHOLARSHIPS

Because of the nature of the College and the close cooperation with business, industry and alumni, there is an on-going scholarship program available to students of the College. In addition to the availability of college-wide general scholarships, various departmental scholarship opportunities are offered to students majoring in those areas. Specific information on the availability of campus scholarships is located in the Financial Aid Office website.

SATISFACTORY ACADEMIC PROGRESS FOR FINANCIAL AID

To be eligible for federal and state financial aid, students are required by the U.S. Department of Education and the State of California to maintain satisfactory progress toward completing their degrees or certificates. In compliance with prescribed regulations, the Los Angeles Community College District (LACCD) has established guidelines designed to promote timely advancement toward specific degree and certificate objectives. Students' satisfactory academic progress is checked after each semester. To satisfy academic progress requirements, financial aid students must meet the following:

- Maintain a cumulative Grade Point Average (GPA) of 2.0.
- Have less than 90 units attempted (including not having received Associate's Degree or higher) at the beginning of the academic year.
- Non-grades (W, INC, NP, RD) must be 33% or less of cumulative units attempted.

Disqualification – Students will be disqualified and will not receive financial aid if they have one or more of the following deficiencies at the end of each semester:

- Total units attempted (excluding ESL and 30 units of Basic Skill/ Remedial classes) are equal to or greater than ninety (90);
- Associate or higher degree has been earned outside of LACCD;
- Cumulative GPA is less than 2.0;
- Cumulative non-grades are more than 33%

Warning letter – Students will receive a warning letter at the end of the fall semester if they have one or more of the following academic deficiencies:

- Cumulative GPA is less than 2.0;
- Cumulative non-grades are greater than 33%
- Number of units attempted reaches forty-five (45).

Appeal – Students who are disqualified from receiving financial aid may submit a written appeal to the financial aid office. The appeal must include an education plan signed by a counselor and an explanation of why the satisfactory academic progress requirements were not met. The appeal form must be received by the Financial Aid Office on or before the deadline day of the semester that the students are appealing for.

If you have any questions, email the Financial Aid Office at tfinaid@lattc.edu. Staff members are available to answer your questions and to help you complete any of the forms. Keep in mind that it takes two months, sometimes longer, between the time you apply for aid and the time your award is completely processed. For additional information related to the programs offered and the application process, contact the campus Financial Aid Office at (213) 763-7082 or stop by the office during our office hours to pick-up a copy of the "Financial Aid Guide".

NOTE

- Due to the Higher Education Opportunity Act (HEOA), students have a maximum lifetime PELL Grant eligibility of 600% (12 full-time semesters). Students may view their percentage of PELL Grant eligibility by logging into www.nslds.ed.gov The "Lifetime Eligibility Used" percentage will be displayed in the "Grants" section of the webpage.

IMPORTANT NOTICE

Students who drop classes, completed the semester with all non-passing grades (any combination of F's, W's and NP's) or were administratively excluded from classes may be required to pay back a percentage of the Federal financial aid grant funds they have received. E-mail the Financial Aid Office at tfinaid@lattc.edu before withdrawing from all or part of your classes! (213) 763-7082, Juniper Hall JH-214.

For more information regarding the Financial Aid process, please attend the financial aid workshops held throughout the year. A schedule of workshops can be found on the Financial Aid homepage (http://college.lattc.edu/financialaid/).

IMPORTANT INFORMATION REGARDING GAINFUL EMPLOYMENT DISCLOSURE REQUIREMENTS

To qualify for federal financial aid, the law requires that an educational program at a community college must lead to a degree (associate, bachelor's, graduate, or professional) or prepare students for "gainful employment in a recognized occupation. Further, federal regulations [75 FR 66832] require community colleges that participate in the Federal student financial assistance programs to report certain information about students who are enrolled in Gainful Employment Programs. At Los Angeles Trade-Technical College, Gainful Employment programs are programs that prepare students for obtaining a Certificate of Achievement.

In accordance with the Gainful Employment disclosure regulations, a website has been developed to provide students with important information on each Certificate of Achievement program (e.g., Gainful Employment program) at the college including, but not limited to: program costs, employment projections and profiles related to the occupation(s) the program trains students for, and program completers. The Certificate of Achievement website is available at: http://college.lattc.edu/certificates/. The information provided for each Certificate of Achievement program on this website fulfills the Gainful Employment federal reporting requirements described above.



6. Student Services and Academic Resources

CAREER AND STUDENT EMPLOYMENT CENTER

Phone: **(213) 763-7104/ 7124**
Location: **JH-403**

The Career and Student Employment Center's mission is to provide students with effective career planning tools, state-of-the-art technology, resources and services equipping them with the ability to identify and make informed career choices, and to achieve their life long career goals through successful employment and/or higher education in career technical/vocational or other educational programs.

The Center's goal is to promote and provide effective career planning and development for all students. Experienced staff will assist with career options and provide the testing and interpretation of career assessments, career guidance, and develop the student's awareness of the educational opportunities available. Available services include: The Myers/Briggs Personality Assessment, the COPS-COPES-CAPS career inventory, the EUREKA Career Information System, Career/Life Skills workshops, mentorships, a library with Career resources and computer aided job development are available to assist with career and job opportunities.

The Center also assists students in finding full-time, part-time or temporary jobs. It also provides information on internships, working abroad and summer employment, as well as employment information for alumni. The Center maintains a file of current job bulletins from city, state, county and federal government agencies, as well as school districts and private industry.

CHILD DEVELOPMENT CENTER

Phone: (213) 763-3690
Location: Corner of Olive and 21st Street
Hours: See below

The Campus Child Development Center is designed to provide a supportive educational environment for children while parents attend classes, job training, or work. The center believes that a warm and nurturing atmosphere is the best for both children and adults to learn and grow. Therefore, our focus is to provide developmentally appropriate activities for children and to provide opportunities for parents to enhance their parental skills. The center is staffed by dedicated teachers trained in the field of early childhood education. Student assistants and college lab students work with the staff to provide an environment that is developmentally appropriate for young children. Activities are planned to meet the child's emotional, social, physical and intellectual needs. Programs are as follows:

Day Program:

Hours:

Half Day Care:	**Monday – Friday**	**6:30 a.m. – 12:00 p.m.**
Full Day Care:	**Monday – Friday**	**6:30 a.m. – 3:30 p.m.**

Ages: Infants through Preschool Children, 16 months to 5 years of age (before entrance to kindergarten)
Meals served: Breakfast, Lunch and Snack

To receive an application contact the Center. Each application is to be completed and returned to the Child Development Center with current income verification in order to establish enrollment priority for your child's admission. Child care is free for income eligible parents.

COUNSELING SERVICES

Phone: (213) 763-7354
Location: JH-416 and Pathway Offices in various locations on campus

The mission of the Counseling Department is to provide the opportunity for our students and the community to receive professional counseling services to assist them in the exploration, planning and successful completion of coursework leading toward obtaining their academic, career and personal goals. The Counseling Department supports student success and promotes achievement through persistence, retention and the use of technology in order to foster life-long learning and effective participation in our democratic society. Advisement in Spanish is available upon request. Students may consult with a Counselor to discuss any of the following:

- Student Educational Plan
- Pathway Information
- Early Alert Workshops
- Financial Aid Advisement
- Transcript Evaluation
- Graduation Requirements
- General Education Certification (UC/CSU)
- Transfer Requirements to Four-Year Colleges and Universities (see "University Transfer Center" for more information)
- Interpreting Assessment Results
- Personal Concerns
- Counseling Courses
- Substance Abuse Counseling Referrals
- Intervention Planning

DISABLED STUDENTS PROGRAMS AND SERVICES (DSPS)

Phone: **(213) 763-3773**
TDD: **(213) 763-5375**
Location: **Mariposa Hall MA-100**

The services provided by the Disabled Students Programs and Services (DSPS) program are designed to minimize the effect a disability may have on a student's academic performance. Students with physical, psychological or learning disabilities are offered a wide range of services including registration, special parking and counseling. These services are also available to students with a temporary disability such as injury or post-operative recuperation. All services and equipment are provided free of charge to any qualifying disabled student. Deaf and learning disabled students are offered additional services including special classes, tutoring and computer-assisted instruction.

- Academic Counseling
- Priority Registration Assistance scheduling classes and completing the registration process.
- Parking - issued to students with medical and physical disability documentation and a Disabled Placard. Please meet with a DSPS Counselor.
- Academic Accommodations:
- Sign Language Interpreters, tutors, test proctoring, readers upon request, and arrangements for note takers available up-on request.
- Materials available in alternate media format upon request.
- Liaison with the college's instructional staff.
- High Tech Computer Center lab that offers computer-assisted instruction in a format accessible to students with disabilities. The tables and computer keyboards can be adapted, and text may be enlarged and /or read out loud. Voice activated systems are available for students who may not be able to use a keyboard. The computers may be used for coursework or skill-building activities. Internet access is also available.
- Liaison with the State Department of Rehabilitation and other agencies providing services for the disabled.

To request services please call 213-763-3773.

***** ATTENTION DISABLED PLACARD HOLDERS ONLY******

If the building elevators are not functioning. Please contact the Sheriff's Office at 213-763-3600, or you may also use the emergency blue phone next to the elevator.

EXTENDED OPPORTUNITY PROGRAM AND SERVICES (EOPS)/COOPERATIVE AGENCIES RESOURCES FOR EDUCATION (CARE)

Phone: (213) 763-7097/7098
Location: JH 205

Extended Opportunity Programs and Services (EOPS) is a state funded comprehensive support program which recruits and assists qualified low-income students who have educational disadvantages. EOPS provides academic counseling, career exploration, tutoring, priority registration, book services and workshops aimed at helping students succeed in college. Participants must be full-time students. EOPS participants who are single parents with children under the age of 14 may receive additional services if they qualify for C.A.R.E. (Cooperative Agencies Resources for Education).

THE ELIGIBILITY REQUIREMENTS ARE AS FOLLOWS:

- Recipient of Financial Aid BOGG Fee Waiver (BOGG A and B only)

Full-Time Student

- 12 units
- 6 units for DSPS
- Have Less Than 70 College Units Completed
- No More Than 6 Consecutive Semesters With EOPS



- California Resident (living in CA for one year and one day)

BENEFITS INCLUDE BUT NOT LIMITED TO:

- Counseling (academic, career, personal)
- Priority Registration
- Book Grants (amount varies)
- Specialized Workshops
- Honor's Banquet
- Tutoring (in-person & online)
- Field Trips to Universities
- Counseling 4: Career Planning
- Counseling 2: Volunteer Program
- Counseling 20: EOPS Summer Bridge
- Student Support Program (for students with low GPAs)
- CARE (not all will qualify)

Extended Opportunity Programs and Services (EOPS) is a college success, counseling support program for low income and educationally disadvantaged students. EOPS students receive assistance and support with their college education. Special attention is given to identify, plan, develop and achieve the academic, career and personal goals of our students.

The EOPS Counseling Faculty assist students with various issues relating to their academic, career and personal development. EOPS Counselors understand that students may be unfamiliar with the college environment and culture; and therefore, they are readily available to guide you during your academic journey at LATTC. They assist students with the registration procedures, and guide students with class selections, generate a student educational plan (SEP) and acquaint students to the resources available on campus. They also work with students on a personal level as they know that students may encounter many life obstacles and challenges that can interfere with their pursuit toward achieving their academic goals. EOPS Counselors believe that students should be given the appropriate tools and skills to enhance their college experience. They consistently sharpen their counseling skills, techniques, interventions, logic and intuition to help students in making decisions that lead to a successful college and life experiences.

The CARE (Cooperative Agencies Resources for Education) Program is targeted at providing educational opportunities and enhancing personal growth to students receiving CalWORKS. CARE students must be single head of household, a CalWORK recipient and meet EOPS eligibility. It is our commitment to extend support services to CARE students in order to help them achieve their educational goals at LATTC. The concept of "over & above" in assisting CARE students is embraced and exercised among our dedicated staff.

Services:

- Childcare Assistance
- Counseling
- Educational and Developmental Workshops
- Access to Community Resources
- Meal Tickets
- Resource Referrals
- Transportation Assistance
- Educational Supplies

GAIN/CALWORKS PROGRAM

Phone: **(213) 763-7109**
Location: **JH-403**

GAIN/CalWORKs is a job training program that provides extensive services for participants receiving Temporary Aid for Needed Families Families (TANF). Educational services include instructional programs in Adult Basic Education, GED Preparation, Tutoring, and English as a Second Language, Vocational ESL, AA/AS Degree Programs, Career Technical Training, General Educational Programs and Personal Development.

Our highly trained staff provides academic, career and personal counseling and case management. Job development services include career/life skills workshops, work study, work experience, and post-employment services. Childcare is provided through our campus Child Development Center.

The collaborative services with the County Department of Public Services/ GAIN (DPSS) include: contracts, childcare, transportation, textbooks, and supplies, progress reports, training and employment and outside agency verifications. Collaborative partnerships with the campus Student Employment Center, Employment Development Division (EDD) and County DPSS/GAIN involve: Job Expos, Job Assistance, Employment/ Career Workshops. We work closely with One Stops, Work Source Centers, Workforce Investment Boards and, other community based agencies including our CalWORKs Advisory Board.

The ultimate program goal is to provide quality training and services to all eligible students in their transition from welfare to work.

OMBUDSPERSON

Phone: **(213) 763-7066**
Location: **JH-519**

The College Ombudsperson is available to assist students to seek resolution to concerns and problems they encounter.

PUENTE PROJECT

Phone: **(213) 763-7066**
Location: **JH-413**

The Puente Project is an academic preparation program whose mission is to increase the number of educationally disadvantaged students who:

- Enroll in four-year colleges and universities
- Earn college degrees
- Return to the community as mentors and leaders for future generations

The Puente Project will prepare students to successfully transfer to four-year colleges and universities and return as role models in the community.

Puente uses a combination of teaching, counseling and mentoring to achieve

its educational objectives. These three components combine to provide a focused and engaging learning community that allows students to achieve greater gain than would be possible using any single component alone-the whole is greater than the sum of its parts. To be eligible for the program prospective Puente students must:

- Attend a Puente orientation in the spring or summer prior to entering the program in the Fall semester
- Be interested in transferring to a four-year university
- Be eligible to register for English 28 or English 100 in the Fall semester
- Be willing to make a one year commitment to the program
- Be willing to take Puente English and Personal Development classes during Fall and Spring semesters
- Be available to participate in extracurricular activities

STUDENT HEALTH CENTER

Phone: **(213) 763-3764/3765**
Location: **MA-107A**

The LATTC Student Health Center in partnership with St.Johns Family and Well Child Center provides many services for currently enrolled students. The Student Health Fee provides the majority of services free of charge.

This includes:

- Non-emergency care, including health screenings, general physical exams and limited treatment of illnesses
- Health and nutrition Information; health education literature
- Free immunizations
- Laboratory tests
- TB skin tests
- Mental health and substance abuse counseling
- Women's health services
- Health workshops

UNIVERSITY TRANSFER CENTER

Phone: **(213) 763-7154**
Location: **JH-203**

The University Transfer Center's primary purpose is to assist students interested in transferring to a four-year college or university. The Center serves as a valuable resource to students who have questions regarding course preparation, admission requirements, transfer admission guarantee programs, college and university searches, articulation agreements, financial aid, housing, and other transfer issues. Representatives from the University of California System, the California State University System, as well as private institutions such as USC, visit the Center to provide up-to-date information to students via workshops or individual appointments. Catalogs, brochures and applications are available for the UC, CSU, and private institutions, including a wealth of on-line resources. Visit our website: http://college.lattc.edu/transfer/

VETERANS STUDENT CENTER

Phone: (213) 763-5305 or (213) 763-5572
Location: MA-101

Los Angeles Trade-Technical College courses are approved for the training of eligible Veterans, Reservist, National Guard, and eligible dependents, under Federal and State Assistance programs. In order to start training under any of these programs, eligible students should visit the Veterans Student Center.

All Veterans Administration rules and regulations apply to all eligible students attending a Los Angeles Community College and receiving benefits under Chapter 30, 31, 33, 35 & 1606 and National Guard of the United States. All benefits have to be approved through the Department of Defense (DOD).

Credit For Prior Military Service Training

Veterans and other eligible persons who are receiving benefits must provide the College with documentation of all previous educational and training experience, including Military Service Training Schools and/or Military Occupational Specialties. This experience will be evaluated and appropriate credit granted.

Attendance and Withdrawal

Students are required to attend all meetings of every class in which they are registered. The last day of a student's attendance in class must be reported to the Veterans Administration (VA) to avoid overpayments. It is the responsibility of the student to immediately inform the Office of Veterans Affairs of any reduction in unit load. It is the responsibility of the instructor to notify the Admissions Office of the last day of attendance of students. The Veterans Administration will then be notified in a timely manner of the students who withdraw from class.

Program Planning For Veterans

To be eligible for VA Education Benefits the student must select a major and choose courses from those listed under the major in the catalog. All students will need an Educational Plan and seek counseling from Counseling Services. The Veterans Administration will not pay benefits for courses that do not fit in a student's selected major. If a student has prior training and education from another institution, it is the student's responsibility to have the transcripts forwarded to the Admissions Office.

Academic Requirements

All students are subject to the academic standards for probation and dismissal as listed in this catalog. If a Veteran or other eligible person fails to obtain a cumulative grade point average of 2.0 or better after 3 consecutive semesters, the student's educational benefits will be discontinued.

60 Unit Rule and Unit Workload

Once the student has received units sufficient to equal or exceed the normal program printed in the catalog, the Office of Veteran's Affairs must certify the additional units needed for the student to complete the Associate degree in any major. The student is eligible for further training at the college only

by taking courses which are required for upper division status at a transfer institution, or by changing the objective. These courses must be approved by the Veterans Administration. The 60 Unit Rule requires that an eligible student see a counselor before any more courses can be certified by the Office of Veteran's Affairs for payment of benefits.

The Veterans Administration uses the following definition for eligibility:

Full-time benefits: 12 or more units
3/4-time benefits: 9 through 11 units
1/2-time benefits: 6 through 8 units
Less than 1/2 time: 3 through 5 units (Reservist and National Guard)

ACADEMIC CONNECTIONS

Academic Connections

Phone: **(213) 763-3754**
Location: **MA-109**

Academic Connections provides students with academic instruction and support services in an environment that facilitates successful retention and persistence during their academic career. The Center focuses on the individual needs of all LATTC students by providing courses, workshops, tutoring, computer access, and instructional resources to help ensure success in their academic, career, and personal goals. A Los Angeles Trade Technical College student ID is required for ALL services.

College Readiness, Career Exploration, Career Readiness, Non-Credit (including ESL), and G.E.D. Exam Preparation

Academic Connections offers credit Learning Skills and non-credit Basic Skills courses to all students who want to reinforce their skills as independent critical thinkers, analytical readers, and proficient writers, effective mathematic problem solvers with the use of practical study strategies while mastering course materials. The Learning Skills computer lab is available to LATTC students taking Learning Skills/Basic Skills courses in basic reading, writing, math, spelling, vocabulary, computer literacy, and GED preparation. For more information, please call (213) 763-3754.

Tutoring Center

Free tutoring services are available to all LATTC students. Tutoring is conducted in one-on-one and small group formats. students need an instructor or counselor referral to obtain tutoring services. The Center also provides interactive sessions on a variety of math, reading, writing, and computer literacy topics. Basic Moodle and Mahara assistance is also provided. For more information, please call (213) 763-3754.

LIBRARY

Circulation Desk: **(213) 763-3950**
Reference Desk: **(213) 763-3958**
Location: **MA-104**

For hours or more information, please call (213) 763-3950.

The Library is located in Mariposa Hall. The Library offers a diverse collection of curriculum-centered, academic and vocational education materials. Research resources include Library subscription databases, books, a selection of Faculty Reserve course textbooks, print periodicals, and internet access. The book collection, research databases and online periodicals are accessible 24/7 via the online public access catalog and the Library research databases remote access available at website: http://library.lattc.edu. The Library offers free, time-limited internet access to currently enrolled LATTC students and individual study areas and small group rooms are available. Students need a valid, current student identification card to qualify for Library borrowing privileges. Loan periods are four weeks for circulating books and two hours or one week for selected Library Reserve materials.

Faculty Librarians offer individualized research assistance at the Reference desk and educate students in developing research skills to enable them to succeed in their course work and research interests. Library Faculty also offers Library resources instruction in Library workshops, Faculty-scheduled Library orientations, and one-unit Library Science 101 Library Research Methods classes. Library Reference (213) 763-3958.

THE OPEN COMPUTER LAB

The Open Computer Lab ("Open Lab") is available to all LATTC students and faculty free of charge. Students must be enrolled at LATTC or any college in the Los Angeles Community College District and have a current student ID card. Students may use the Open Lab for general computer use, the Internet, and online class access. For Lab hours or more information, please call (213) 763-3950.

Location: **MA-104 M-F**
MA-109 Saturday only

ONLINE EDUCATION

LATTC Online Program

For a current listing of LATTC Online Program courses go to http://moodle.lattc.edu and click on the Student Information button.

What do you need to take an online class?

- Computer access where you can regularly connect to the Internet, plus
- Sufficient computer skills to send/receive email and to navigate the World Wide Web, and
- Ability to log into the Student Information System (SIS) and use the LACCD-issued student email account. Students may forward email from the LACCD account to a personal account.

How to register for online classes:

- If you are an existing LATTC student, just enroll in the online class as you would any other class, or
- If you are a new LATTC student, enroll in the college first. Please go to http://www.lacolleges.net/admissions/ to enroll online. Once you are enrolled in the college, you can proceed to register for your online class. You should print the confirmation of online enrollment page at the end of the process. The online application takes two days to process.

What to do after you register for an online class:

- Go to the LATTC Moodle home page at http://moodle.lattc.edu
- Download the Online Student Guide and read it carefully. A new Guide is created for each term, so get the correct Guide.
- Be sure to check if your class requires a campus edition of a textbook to coordinate with your online class. If you purchase the textbook at another campus, the key may not work for your LATTC class.
- Check the System Requirements button to get information on preparing your computer to take online classes. You'll need to be able to enable pop-ups and cookies on your computer.

Students who will be using the Moodle course management system will be able to log into one week prior to the start of the class. Login is identical to that for the Student Information System. Login id = Student ID number and password was originally set to mmdd of date of birth. If a student changes the PIN for the SIS, then it changes the password for Moodle since they use the same authorization process.

Students who will be using a course management system other than Moodle for their online class will need to either attend the scheduled class orientation or follow all directions on the class home page to set up the software.

Are there any special meetings, either on campus or online? Do I have to log in at a specific time?

Each teacher has the right to request either on-campus or online meetings if they feel it is best to do so. Some of the reasons they may choose to require these meetings is to ensure the student is who s/he claims to be and is the person actually doing the work. This is a new federal mandate. Or, teachers may require an on-campus meeting to provide materials or an orientation to help students get off to a great start.

Most online classes are done asynchronously. This means a student logs in at regular intervals of his/her choosing during the week. Some classes do schedule chats where students gather online at the same time. Some instructors have online office hours at set times for students to log on and get help. Students should log into their class every couple of days and more often for short term classes.

What is considered attendance in online classes?

Online classes consider the weekly submission of assigned work as attendance. Logging into the system and not keeping up with assigned activities is not considered attendance in online or hybrid classes.

Classes have already started - How do I get into an online class?

Send the instructor an email request to add the class. This email needs to come from the same ID listed in the Student Information System (SIS). Include your name, student ID number and the class name and section number in your email.

How do I contact my instructor?

The Online Student Guide has a list of instructor phone numbers and email addresses. If you are not successfully contacting your instructor that way, call the department office or the LATTC Online Program office.

What if I need additional information?

You can contact the Online Program Office at 213-763-3733 or 213-373-1167, or email online@student.lattc.edu. If you need to fax forms, the fax number is (213) 406-1237.

Instructional Television (ITV)

Each semester, the District-wide Instructional Television program presents, via television, transferable undergraduate college credit courses. Instructional Television courses are convenient, flexible and especially suitable for college students needing to supplement their on campus program or to add classes for those times when campus attendance is not possible.

Students enroll by mail, telephone or the Internet. They may view telecourse lessons at home or at a Learning Center at one of the Colleges. Students will complete reading and study assignments, attend seminars held approximately once a month on weekends at a Los Angeles Community College near their home, and complete a midterm and final exam. Interested students are invited to attend the ITV class orientations held at the beginning of each semester or to visit the Instructional Television program on the campus of Los Angeles Mission College, 13356 Eldridge Avenue, Sylmar, CA 91342. Call 800-917-9277 or (818) 833-3594 for information.

BRIDGES TO SUCCESS CENTER

Telephone: **(213) 763-5560**
Fax: **(213) 763-5979**
E-mail: **bridge@lattc.edu**
Location: **MA 105**
Website: **http://college.lattc.edu/bridges/**

The Bridges to Success Center is a one-stop center campus location that provides general college information and assistance to prospective, new, and current students. The staff at Bridges offers assistance with completing the LATTC online application, new student orientation requirement, assessment testing, enrollment in classes and connecting students to various student services and other support programs and services on campus. Students can also obtain their student ID cards as well as complete enrollment and other fee payments (credit card only) at the Bridges to Success Center. The center also conducts group campus tours and coordinates outreach efforts with local high schools and community partners. Bilingual assistance is available. For more details, please visit our website at http://college.lattc.edu/bridges/

BRIDGES TO SUCCESS CENTER PROGRAMS AND SERVICES

K-12 Concurrent Enrollment

Provides students the opportunity to concurrently enroll in college courses while still in high school, getting early college experience and take advantage of advanced scholastic and educational enrichment opportunities for eligible students.

Assistance for AB 540 Students

Assist and inform eligible nonresident students of existing law establishing that California High School graduates are authorized to attend community college and be exempt from nonresident tuition.

Continuing Education

Provides non-credit courses, free of charge, in subject areas such as ESL (English as a Second Language), Citizenship, and Basic Computer Skills Courses.

CONCURRENT ENROLLMENT

Phone: **(213) 763-5560**
Location: **Mariposa Hall MA-105 (Bridges to Success Center)**

Los Angeles Trade-Technical College (LATTC) offers students the opportunity to concurrently enroll in college courses while still attending high school. The purpose of this program is to provide advanced scholastic and educational enrichment opportunities for eligible high school students. Students who desire to participate in concurrent enrollment must provide a signed recommendation form by their principal or counselor and have parental permission as well. K-12 students can take degree-applicable, noncredit, vocational and/or transferable courses. Students are required to complete a Special K-12 Admission Application for each semester prior to enrollment at LATTC. Special admissions criteria apply for K-8 students.

For additional information, please contact the Bridges to Success Center/ Bridge to College Program at 213-763-5560 or by email at bridge@lattc.edu. Additional information can also be found on our website at: http://college.lattc.edu/bridges/bridge-to-college-program-k-12-concurrent-enrollment/.



FOSTER & KINSHIP CARE EDUCATION PROGRAM

Director: Dr. Dione Washington
Phone: (213) 763-3665
Location: RH-100

The Los Angeles Trade Technical College Foster and Kinship Care Education Program provides quality education and support services to foster parents, adoptive parents, relative care providers, non-relative extended-family care providers, legal guardians and foster and kinship care youth.

Available workshops and services include: Foster & Kinship Care Education (FKCE); Working with Special Needs Children (D-Rate Certification & Renewal); Working with Medically Fragile Children (F-Rate Certification & Renewal); Whole Family Foster Home ~WFFH~ & Shared Responsibility Plan ~SRP~ also known as SB500 (W-Rate Certifica-tion & Renewal); Partnering for Permanence and Safety, Model Approaches to Partnerships in Parenting (PS–MAPP/Foster Parent Certification); and Emancipated Foster Youth Support (Guardian Scholars Program).

OFFICE OF STUDENT LIFE

Phone: (213) 763-7200
Location: RH-105

The Office of Student Life (OSL) provides opportunities for students to become engaged in educational, social and community service activities in and outside the classroom. Services such as the club activities, discounts to social events, publicity through the student bulletin and bulletin boards are offered. Other activities handled by this office include: ASO Student Council Board meetings, Inter Club Council Board meetings, Dean's Honors Awards Ceremony, ASO Chartered Club meetings, Commencement, ethnic and multicultural programming, club fairs, blood drives and scholarships and SkillsUSA.

The OSL Student Lounge is open to all Trade Tech students. The lounge doubles as a study lounge during midterms and finals. On special occasions the lounge is used as a community gathering location.

ASSOCIATED STUDENT ORGANIZATION (ASO)

Membership

ASO programs are supported by a $7.00 membership fee and payable at the Business Office for day and evening students. These fees help support the services ASO provides. Any student, upon enrolling, is eligible to become a paid member of the Associated Student Organization. Members are entitled to all rights and privileges, including educational, social and community services programs and all associated activities.

Organization

The governing body of the Associated Students, the Student Council, is composed of elected Executive Board members, which consists of the President, Vice President, Parliamentarian, Treasurer, Historian and the Recording Secretary. The Student Council also includes appointed Senators and Commissioners who serve as representative liaisons for departments on campus.

The purpose of student government is best expressed in the preamble to the constitution: "We the students of Los Angeles Trade-Technical College, in order to guide and encourage cultural, social, athletic, and scholastic activities, to promote the welfare of the students, and to provide a representative student government, do hereby establish this constitution, and assume the powers of self-government delegated to us by the President of the College."

All students are encouraged to become involved in the governance of their affairs by becoming department representatives or by running for an elected office. Governance flow is from individual students to department representatives to the student council and in reverse. Elections are held every spring for the Executive Board positions. Officers are elected for a one-year term.

LATTC is a member of the California Community College Student Affairs Association (CCCSAA) and the California Student Association of Community Colleges (CAL-SACC). The two organizations meet separately each semester to discuss topics in Student Government and activities of importance to the member schools. The groups were organized to help promote better relations among the community colleges of the state and to help solve problems relative to each. Trade Tech regularly sends delegates to these statewide and regional meetings.

Qualifications for ASO Officers (Administrative Regulation S-9)

Los Angeles Community College District Administrative Regulation S-9 pertains to elected Associated Student Organization (ASO) officers only. Senators and Commissioners are appointed by the ASO Student Council and are governed by ASO By-Laws.

Regulation S-9 is as follows: "A student cannot be a candidate for ASO office if he or she has served more than four semesters in a student government elected and/or appointed office, or in any office or position where he or she voted on the expenditure of ASO funds in any college. An officer may serve a fifth semester if he or she is eligible at the time of assuming office (e.g., has served three semesters and is a candidate for an office with a one-year term). Ten weeks or more of student service in office or service anytime after the tenth week will be counted as a full semester. All students running for office must be paid members in good standing in the Associated Students Organization at the college where the election is "held."

A student officer or a candidate for office must be actively and continuously enrolled, attending and successfully completing classes in a minimum of 5 units with a cumulative and current GPA of 2.0 at the College during the semester in which the student government office is applied for or held. All units must be taken at the college where the office is sought or held.

Student Trustee Election Procedure

The Los Angeles Community College District conducts an election annually whereby each student in the District has an opportunity to be involved in the process of selecting a student representative to the Los Angeles Community College district Board of Trustees. Student Trustee eligibility requirements can be found on the LACCD website.

ASO CLUBS AND ORGANIZATIONS

Inter-Club Council (ICC)

The Inter-Club Council is composed of representation of all chartered clubs. The representatives are the Vice Presidents from each campus club. ICC serves as the coordinating and planning body for club activities.

STUDENTS ARE ENCOURAGED TO ORGANIZE NEW SPECIAL INTEREST CLUBS ON CAMPUS. Before a group is recognized officially, a constitution must be submitted and approved by the ASO Advisor and Executive Board. Sample constitutions can be picked up in the Office of Student Life. Every club is required to have a Faculty Advisor. An Administrator can also serve as a Club Advisor.

STUDENT INTERCOLLEGIATE ATHLETICS

Phone: **(213) 763-3726**
Location: **WH-202**

Trade Tech College is a member of the South Coast Conference of which there are 10 colleges. The other colleges are: East Los Angeles College, Los Angeles City College, El Camino College, Cerritos College, Long Beach City College, Mt. SAC College, Pasadena City College, Los Angeles Southwest College, and Compton College. In the Fall, sports offered are Men's and Women's Water Polo, Men's and Women's Basketball and Women's Volleyball. In the Spring, sports offered are Women's swimming and Men's Volleyball.

To be eligible for intercollegiate athletic program participation, students must be enrolled and attending 12 or more units. They must also have a physical examination and be cleared by our medical staff.

College Colors and Mascot

The college colors are purple and gold. The college mascot is the Beaver, and Trade Tech students are known as Beavers.



Other Campus Offices and Services

BUSINESS OFFICE

Phone: (213) 763-7225
Location: JH-Lobby

Student accounts are managed through the College Business Office. Student fees including enrollment fees, nonresident tuition, health fees, parking, Associated Student Organization, child care, transcripts and Community Service fees are payable at the Business Office. Upon payment of fees, the Business Office then issues student's official confirmation of course enrollment/fee receipt. In addition, the Business Office accepts, disburses and accounts for some student financial aid, loan and scholarship checks, and issues all student refunds. (Metropolitan Transit Authority bus passes and tokens are also available for sale at the Business Office.)

BOOKSTORE

Phone: (213) 763-7210
Location: CH-102

See Bookstore website: http://www.lattcbookstore.com

Bookstore Return / Refund Policy

A.Textbooks

Textbooks must be returned within the first 15 school days of the Fall and Spring semester, and within the first 5 days of Summer, and Winter Sessions, and short-term courses. Textbooks purchased after the 10th school day must be returned within 24 hours.

All textbooks being returned must be accompanied by an ORIGINAL DATED CASH REGISTER SALES RECEIPT issued by the Bookstore. NO EXCEPTIONS!

Refunds and/or exchanges will not be allowed on textbooks purchased during the last 4 (four) weeks of the semester. No refunds will be allowed after the 1st week of the Summer and WInter Sessions.

Textbooks must be returned in the same condition as when purchased, with final determination of condition made by the Bookstore Staff. New textbooks must be in new condition (no writing or marks of any kind). Textbooks failing to meet the policy will be considered Used and be governed by the Used textbook policy. Catalogs, Class Schedules, Paperbacks, Scantrons, regular supplies, Study Guides, Dictionaries, Clothing, Workbooks, Computer external drives, and specially assembled kits are not refundable.

B. Supplies and Tools

Materials required by a specific class may be returned during the first 48 hours of the Fall and Spring semesters and within the first 48 hours of the Summer and Winter Sessions. Items must be accompanied by a dated cash register receipt and must be in NEW condition. NO REFUNDS will be given for any clothing, athletic supporters, sweat socks, safety goggles, food, and other "personal items" governed by California Health Laws.

C. Policy For Personal Checks

A current LATTC Registration Receipt or ASO card must be presented when making purchases by personal check a valid California Driver's License or California Identification Card. Checks must be imprinted with the student's name and current address, and drawn on a local bank. Checks will be accepted only for the amount of purchase.

D. Book Buy-Back Period

Book Buy-Back periods occur during the final exam week of each Fall and Spring semester. Summer and/or Winter Buy-back dates are posted with signs and on the receipt.

COLLEGE CAFE & GARDEN ROOM RESTAURANT

Phone: (213) 763-7331
Location: SA-Building

The LATTC College Cafe offers a wide variety of exceptional menu choices for your dining pleasure. Students enrolled in the Culinary Arts and Professional Baking programs prepare fresh food daily that is served in the on-campus bakery, cafeteria, and Garden Room Restaurant. Selections include hot entrees, hot off the griddle breakfasts, grab and go sandwiches and salads, as well as a variety of fresh baked goods. Join us in the Garden Room Restaurant on Wednesdays for our international buffet, an all you can eat themed menu based on food from all over the world!! The College Cafe can also provide on-site catering for your special events. Please contact 213-763-7331 for more details.

SHERIFF'S DEPARTMENT

Phone: (213) 763-3600
Location: CY-150

The college contracts with the Los Angeles County Sheriff's Department for all of its law enforcement services. These officers undergo specialized training through the Los Angeles County Sheriff's Academy designed to meet the needs and problems of a contemporary college.

The college prides itself on its safety record maintained on campus. However, effective law enforcement and protection require citizen cooperation and assistance. To that end, please follow a few basic safety tips: if you must remain in campus buildings after closing time, make an effort to do so in the company of at least one other co-worker, or student. The campus is well lighted but it is wise, again, to employ the "buddy system" when walking to your car or traveling to other locations. Refrain from using shortcuts, staying on the well-traveled thoroughfares. And please, if you see something, say something.

Personal property, purses, briefcases, etc., should never be left unattended. Take such items with you if you are leaving the office, classroom, or library study area. Keep your auto locked, never leave the keys in the ignition, and avoid leaving property where it is visible on the seats. Give your car the quick "once over with a critical eye" before entering, for possible break-in or persons in the rear seat or floor area.

The rapid and successful detection of crime and apprehension of criminals depends heavily on speedy reporting and dissemination of facts to the College Sheriff's Department. For information, inquire at the "CY" building, Room 150 or call (213) 763-3600.

The lost and found is located in the College Sheriff's Department, Rm. CY-150. A valid California Driver's License, California Identification Card or LATTC Student Identification Card is required for claimed property.

STUDENT PARKING

See Also: Parking Fees and Permit Sales

GENERAL INFORMATION

Please note: At the time of this publication, every effort was made to indicate available parking at the college. Construction demands will create changes and Information will always be available through the College Sheriff's Office, CY150, (213) 763-3600, 24 hours per day, 7 days a week.

Parking permits must be displayed at all times when a vehicle is parked on campus, including weekends. Individuals who are unsure as to where they may park, or where a permit is recognized as valid, are encouraged to contact the College Sheriff's office for clarification prior to parking their vehicle in a College parking lot.

Lot identification signs showing which lots are for use by students, visitors, and/or employees are posted at the entrance to College parking lots unless specifically re-directed by College Sheriff personnel. Students may not park in any space designated for specific use. Parking in a space designated for specific use can result in a citation for failure to display a valid permit.

Vehicles displaying an invalid parking permit are subject to citation. Invalid permits include, but are not limited to: permits that have been altered, reported lost or stolen, or issued to an individual other than the permit holder (in which case are subject to confiscation), and also permits in which the authorization period has expired, or are not clearly and completely visible. Individuals using or obtaining a permit illegally are subject to administrative disciplinary action.

Student and visitor parking is allowed in designated lots as follows:

- **Preferred Student Parking ($27.00 and includes $7.00 ASO fee)** is in the Olive Street Parking Facility, Oak Hall Building Structure and Flower Street Roof Lot.
- **General Student Parking ($20.00)** is in the 18th Street & Grand Avenue Lot and at Glory Church located at Washington Boulevard & Grand Avenue.
- **Summer & Winter Sessions ($10.00)** for General Student Parking is accepted in Preferred Student Parking areas above.
- **Disabled Parking:** Students/Visitors, Flower Street and Olive Street Parking Structure or as directed by parking attendant. A valid LATTC parking permit and a DMV placard must be displayed on any vehicle parked in a designated handicapped stall. Students with a verified disability should go to the Disabled Students Program and Services Office, MA 100, to arrange for an accommodation. If for any reason the elevator is not available, contact College Sheriff at 213-763-3600.
- **Motorcycle and Moped Parking:** No permit required; parking is, however, restricted to the designated motorcycle/moped parking area located on the east side of Cypress Hall and the east side of Sequoia Hall only (enter from Grand Ave.).
- **Bicycle Parking:** No permit required but restricted to designated areas; bike racks are located throughout the campus.
- **Guest Parking:** Guests coming to the campus may obtain a guest permit at the Main Gate (entrance to the Flower Street Lot) or from the College Sheriff Office, CY-150. Guest permits are issued on a limited day basis only.

Saturday/Sunday Parking Permit Adjustment
Unless directed otherwise by College Sheriff personnel due to a special event or other College activity, lot designations are enforced on weekends as printed on the parking permit.

PARKING RULES AND REGULATIONS

Parking rules and regulations are enforced 24 hours a day, including Saturdays, Sundays, and holidays. A valid parking permit must be displayed at all times the vehicle is parked on campus. The permits are made of removable mylar and should be affixed to the inside rear window, (lower right side, facing outward.) Failure to display a valid parking permit will result in issuance of a citation.

Student parking permit regulations are enforced from the first day of classes each semester through the last day of final examinations. Student vehicles parked in places not authorized for student parking are subject to citation or tow away at owner's expense. Permits are not valid at parking meters.

All traffic and road signs must be obeyed. Speed limit on campus is eight (8) miles per hour. All vehicles shall be parked clearly within the designated lines. Vehicle parking regulations applicable to motorcycles and mopeds will be enforced at all times.

Regulations governing handicapped parking, red curbs, no parking zones, fire lanes, loading docks, special permit areas, and areas having time limitations are enforced at all times. Illegally parked vehicles may be towed away at owner's expense.

- Trade Tech recognizes other student parking permits in the Los Angeles Community College District.
- Construction zones and special college events may cause access to parking areas and roadways to change. Please follow directions on signs carefully.
- No vehicle, motorcycle, or moped may be parked overnight on campus.

ENFORCEMENT OF TRAFFIC AND PARKING REGULATIONS

All persons driving a motor vehicle on campus are required to comply with the traffic laws of the State of California and the rules and regulations pursuant to Section 21113A of the California Vehicle Code. Violations of the regulations set forth above will result in a citation being issued. The College reserves the right to remove vehicles from parking lots as follows: abandoned vehicles; vehicles parked in such a manner as to constitute a serious hazard; vehicles which impede the operation of emergency equipment; vehicles which park illegally on a recurring basis. The registered owner is responsible for any removal costs which may occur.

Liability

Los Angeles Trade-Technical College, the Board of Trustees, and the Los Angeles Community College District shall not be responsible for damage to any motor vehicle, theft of its contents, or injury to persons operating a vehicle parked on or off the campus unless liable under Government Codes including, but not limited to Government Code 810 to 9666.6 inclusive (Reference: LACCD Board Rules 7401 and 7402) Direct inquiries to College Sheriff, CY-150, (213) 763-3600.

CITATIONS AND BAIL

Citations will be issued to all vehicles on college property in violation of parking rules and regulations and must be paid within 21 days of the date issued. Parking Citation Appeals: Individuals who believe a parking citation was issued to them in error must appeal it immediately by completing an Administrative Review form (available at the College Sheriff Office, CY-150, or the LATTC Sheriff Department website under Parking Citations and Appeals). Appeals must be mailed to: Los Angeles Trade Technical College, c/o Parking Citation Service Center, P.O. Box 11923, Santa Ana, CA 92711. Failure to immediately pay or appeal a citation may result in substantial penalties and a Department of Motor Vehicle (DMV) hold on vehicle registration. Please call or contact the Sheriffs Department in person to obtain the results of your appeal.

PARKING INFORMATION AND ASSISTANCE

Inquiries regarding the College's parking program should be directed to the offices listed below during normal business hours. College Sheriff personnel are, however, on duty 24 hours a day, seven days a week to assist with permit use and enforcement issues.

- Parking Rules, Regulations, Permit Use, and Enforcement: College Sheriff, CY-150 (213) 763-3600.
- Permit Sales, Refunds, and Exchanges: Business Office, JH-Lobby, (213) 763-7225.
- Policy: Administrative Projects, JH-532, (213) 763-7040.

NOTE: The parking information shown above is subject to change without notice.

PARKING FEES AND PERMIT SALES

Parking Fees

A limited number of student parking permits are available for purchase at the Business Office for $27.00 for Preferred Student Parking (includes $7.00 ASO fee), or $20.00 for General Student Parking in the 18th Street & Grand Avenue Lot and at Glory Church located at Washington Boulevard & Grand Avenue per permit per semester. The purchase of a parking permit does not guarantee a parking space; it is only a license to park one vehicle in designated parking lots as posted at the entrance of each parking lot. Parking permit sales begin at the time of registration for the effective semester on a first-come, first served basis while supplies last. Student parking permits are purchased at the Business Office, JH-Lobby, as part of the registration process. All enrollment fees must be paid in full before the permit can be issued.

Refunds

Student parking fees are refundable each semester through the enrollment refund period. (Please see the current semester's schedule of classes for the exact deadline date.) The parking permit must be returned at the time the refund is requested.

Lost or Stolen Permits

There is no replacement for lost or stolen permits. A student may, however, purchase another parking permit should one be available. Lost or stolen permits should be reported to the College Sheriff, CY-150, immediately.

TRANSPORTATION

The college is located near the intersection of the Harbor and Santa Monica freeways, and is directly across the street from the Metro Blue Line's Grand Avenue/LATTC and Metro Expo Line's 23rd Street/LATTC stations. In addition to the light rail system, there are more than 40 bus lines stopping at or within two blocks of the College. For more information, please consult the College website at www.LATTC.edu.





L.A. TRADE TECH COLLEGE FOUNDATION

FOUNDATION.LATTC.EDU

The Los Angeles Trade Technical College Foundation supports the school through scholarships, grants, and programs. The Foundation keeps in touch with alumni and community partners to promote employment opportunities and raise funds for LATTC.

LATTC
LOS ANGELES
TRADE-TECH
COLLEGE
FOUNDATION

Watch for announcements about our student and alumni benefits!

- Scholarship applications
- Tools for the Trades competition
- Other ways to get involved

Join the Alumni Network and receive a free gift!

Scan QR Code and Register Online

7. Graduation Requirements

GRADUATION REQUIREMENTS

ASSOCIATE DEGREE

The Board of Governors of the California Community Colleges has authorized the Los Angeles Community College District Board of Trustees to confer the degrees of Associate in Arts and Associate in Science. The program of study leading to the Associate Degree requires sufficient depth in a field of knowledge (the major) to contribute to lifetime interest and broad exposure to other areas of learning (the general education requirements).

Philosophy of General Education

General Education symbolizes a successful attempt on the part of the college to lead students through patterns of learning experiences designed to develop certain capabilities and insights. Among these are the ability to think and to communicate clearly and effectively, both orally and in writing, to use mathematics, to understand the modes of inquiry of the major disciplines, to be aware of other cultures and times, to achieve insights gained through experience in thinking about ethical problems, and to develop the capacity for, and sense of, self-understanding.

Associate Degree Requirements

The following Associate Degree requirements apply to students entering for the first time after July 1, 1983. Continuing students with uninterrupted attendance and demonstrating satisfactory graduation requirements listed in the catalog in effect at the time of their initial enrollment (Catalog Rights). A continuing student is one who has completed a minimum of one course calendar year, except that completion with a "W" will be accepted for one semester only. Students who interrupt their attendance become subject to any new requirements which are in effect at the time they re-enroll.

I. Unit Requirement

60 to 64 units of degree applicable course credit in a selected curriculum. One credit hour of community college work is approximately three hours of recitation, study, or laboratory work per week throughout a term of 16 weeks.

II. Scholarship Requirement

A "C" (2.0) grade average or better in all college work attempted in the curriculum upon which the degree is based.

III. Competency Requirement.

Students must demonstrate competence in reading, in written expression, and in mathematics. The following courses and examinations are approved to meet the competency requirement for the associate degree as defined in Board Rule 6201.12:

A. The competency requirement in reading and written expression may be met by:
   1. Completion of a course in College Reading and Composition with a grade of "C" or better. Or
   2. Completion of any one of the following courses (or its equivalent at another college) with a grade of "C" or better: English 101

B. The competency requirement in Mathematics* may be met by:
   1. Completion of one of the following courses (or its equivalent at another college) with a grade of "C" or better: Math 123C, 125, 134B or any higher level mathematics with a prerequisite of Mathematics 125 or its equivalent.
   2. A passing score on the District (Intermediate Algebra) Mathematics Competency Examination.
   3. A score of 3 or higher on one of the following AP Exams: Calculus AB, Calculus BC, Statistics.
   4. Completion of the college assessment exam in Mathematics and achieve a score determined comparable to satisfactory completion of Intermediate Algebra (that is, placement in a Math course above Math 125 level)

**Board Rules 6201.14, 62201.12, & 6012.12*

IV. Residence Requirement

Completion of at least 12 units of work in residence and attendance at the college during the semester in which the graduation requirements are completed. Exceptions may be made under special circumstances.

V. Course Requirements

Majors requiring 18-35 units complete Graduation Plan A. Majors requiring 36 or more units complete Graduation Plan B.
Effective for all students admitted for the Fall 2009 term or any term thereafter, each course counted toward the major requirements must be completed with a grade of "C" or better or a "P" if the course is taken on a "Pass-No Pass" basis.

ASSOCIATE TRANSFER DEGREE (AA-T OR AS-T)

The Student Transfer Achievement Reform Act, Senate Bill 1440 codified in California Education Code sections 66746-66749, guarantees admission to a California State University (CSU) campus for any community college student who completes an "associate degree for transfer", a newly established variation of the associate degrees traditionally offered at a California community college. The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn one of these degrees, students must complete a minimum of 60 required semester units of CSU-transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the AA-T or AS-T will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated "high-unit" major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete the degree for more information on university admission and transfer requirements.

At the time of catalogue publication, the following AA-T or AS-T have been approved. Please see a counselor for more information.

1. Administration of Justice
2. Early Childhood Education
3. English
4. Kinesiology
5. Mathematics

Associate Transfer Degree Requirements

The following is required for all AA-T or AS-T degrees:

1. Minimum of 60 CSU-transferable semester units.
2. Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some majors may require a higher GPA. Please consult with a counselor for more information.
3. Completion of a minimum of 18 semester units in an "AA-T" or "AS-T" major as detailed in the section of the catalog. All courses in the major must be completed with a grade of C or better or a "P" if the course is taken on a "pass-no pass" basis (title 5 § 55063).
4. Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) ; or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

Graduation Application for Degree/Certificate

Applications are available in JH-Building lobby in Admissions and Records. Students must complete an application with a Counselor and submit the application in the Admissions & Records drop box located at the Lobby during the first 6 weeks of the Fall/Spring semester in which the student expects to complete the Degree/Certificate requirements. Students completing the course work during the Winter/Summer semester Session must submit an application during the first 6 weeks of the preceding Fall/Spring semester.

Transcripts from other institutions must be mailed directly to the Admissions & Records Office by the respective colleges for credit. Applications for Degree/Certificate, of a discontinued instructional program, will NOT be accepted beyond 3 years after the program is removed from the College Catalog. Students should see a counselor for evaluation of requirements for graduation.

Students will be informed by mail of the results of their Degree/Certificate evaluation before the end of the semester in which the application is submitted:

- Fall/Winter Candidate will be notified by December/January
- Spring/Summer Candidate will be notified by May/June

Students who do not meet the graduation requirements must submit a new application when they expect to complete all the requirements.

By submitting an application the student has the option to participate in the graduation ceremony whether they meet the requirements or not. Students will be notified by mail regarding the Graduation Ceremony held in June.

Students successfully completing all the requirements will be notified through the mail when the degrees/certificates are ready for pick up:

- Fall/Winter semester – will be ready for pick up after June
- Spring semester – will be ready for pick up after August
- Summer session – will be ready for pick up after September

STUDENTS MUST PRESENT THE NOTIFICATION CARD AND PICTURE IDENTIFICATION WHEN PICKING-UP DEGREE/ CERTIFICATE.

Diplomas and/or Certificates will only be held for three years after the Diploma/Certificate graduation date. Qualified graduates who do not pick-up their Diploma/Certificate within the above time frame must submit a request for a duplicate Diploma/Certificate and will be assessed a fee for duplicate preparation.

CERTIFICATE OF ACHIEVEMENT

A Certificate of Achievement is issued in State-approved programs designed for students who are looking for instruction with a high degree of specialization. Certificate programs vary in length, but most have 18 or more semester units, and may be pursued on a full-time or part-time basis. Certificate programs are usually one year educational programs that offer courses needed to prepare students for immediate employment. A Certificate program is specific, and no course substitution will be permitted unless approved by the department. A grade of "C" or better is required in each course required for the major.

The Certificate of Achievement shall be granted by Los Angeles Trade - Technical College to any student who successfully completes a sequence of courses established by the department and approved by the college in certain designated programs. That sequence of courses shall include but not be limited to the essential occupational courses required in the major. All courses applied to a certificate program must be completed with a grade of "C" or better.

Application for a Certificate of Achievement must be filed in the semester in which the certificate is granted.

Student _____ Student ID _____

Los Angeles Trade Technical College

ASSOCIATE DEGREE – GENERAL EDUCATION REQUIREMENTS

PLAN A • 2015–2016

General Education Requirements: Minimum of **30 semester units**.

Major Requirements: Minimum of **18 semester units** in a single or related field. Effective for all students entering Fall 2009 or later, each course counted towards the major or area of emphasis requirements must be completed with a "C" (2.0 or equivalent) or better or a "P" if the course is taken on a pass-no-pass basis.

Please see a counselor and check the college catalog or the LATTC homepage "Program Fact Sheets" for specific major requirements.

THIS FORM IS SUBJECT TO CHANGE EACH YEAR	C	IP	N
A. Natural Sciences ***3 Semester units minimum***			
ANTHRO 101; **ANATOMY** 1; **ASTRON** 1, 5^; **BIOLOGY** 3, 5, 6, 7; **CHEM** 51, 65, 70, 101, 102, 211, 212, 221; **CHEM TECH** 111, 121; **ELECTRN** 2; **ENV SCI** 1; **GEOG** 1; **GEOLOGY** 1, 6^; **MICRO** 1, 20; **PHYSICS** 1, 2, 3, 4, 6, 7, 11, 12, 14^; **PHYSIOL** 1; **PSYCH** 2 *^ these lab courses alone will not meet unit requirement*			
OTHER COLLEGE COURSE _____ *AP/IB/CLEP EXAM* _____			
B. SOCIAL AND BEHAVIORAL SCIENCES ***9 Semester units minimum***			
B1. AMERICAN INSTITUTIONS (3 Semester Units minimum) **HISTORY** 11, 12, 41, 42, 43, 44; **LABOR ST** 4; **POL SCI** 1			
B2. SOCIAL AND BEHAVIORAL SCIENCES (3 Semester Units minimum) **ADM JUS** 1, 4, 67: **ANTHRO** 102; **BUSINESS** 1, 5; **CH DEV** 1, 2, 10, 11, 42; **ECON** 1, 2; **GEOG** 2, 7; **HISTORY** 52**, 86, 87; **POL SCI** 2, 7; **PSYCH** 1, 14, 32, 41, 69; **SOC** 1, 2, 28			
B3. Minimum of **3 additional semester units** not used from **B1** or **B2** above.			
OTHER COLLEGE COURSE _____ *AP/IB/CLEP EXAM* _____			
C. HUMANITIES ***3 Semester units minimum***			
A S L 1, 2; **ARC** 130*, 131* (*only 2 sem. Units); **ART** 101, 102, 103, 201, 300, 501; **ENGLISH** 102**, 203, 205 **ENGLISH** 206, 207, 208, 212, 215, 240; **FRENCH** 1, 2; **HISTORY** 52**, **HUMAN** 1, 2; **KIN MAJ** 108 (formerly PHY ED 762); **LABR ST** 21; **MUSIC** 101, 141; **PHILOS** 1; **SPANISH** 1, 2, 35, 36; **THEATER** 100; **VISCOM** 106*, 108*, 120*, 130* (*only 2 sem. Units)			
OTHER COLLEGE COURSE _____ *AP/IB/CLEP EXAM* _____			
D. LANGUAGE AND RATIONALITY ***12 Semester units minimum***			
D1. ENGLISH COMPOSITION (3 semester Units minimum) **ENGLISH** 28, **101**, 102** °Competency Requirements on page two for students entering prior to Fall 2009.			
D2. COMMUNICATION AND ANALYTICAL THINKING (6 semester Units minimum two courses) **COMM** (formerly Speech) 101; **CO INFO** 701; **ENGLISH** 103; **MATH** 114, 115, 120, **125** or higher; **PHILOS** 8			
D3. Minimum of **3 additional semester units not used** from area **D1** or **D2** above.			
OTHER COLLEGE COURSE _____ *AP/IB/CLEP EXAM* _____			
E. HEALTH AND PHYSICAL EDUCATION ***3 Semester units minimum (area cannot be met with activity units only)***			
E1. HEALTH EDUCATION (2 semester Units minimum) **HEALTH** 2°, 6°, 8, 11, 12, 21, 43 *Note: °Health 2 and 6 includes the physical education activity.*			
E2. ONE PHYSICAL EDUCATION ACTIVITY (1 semester Unit minimum, unless exempt) **KIN** 300 to 350-1 any level, 387, 500; **KIN ATH** 504, 506, 513, 516, 517, 552, 554, 561			
OTHER COLLEGE COURSE _____ *MILITARY CREDIT (if applicable)* _____			
*** courses can only be used in **one** GE category*			

Updated 11/2015(dre)

Counselor's Signature _____ Date _____

GRADUATION REQUIREMENTS

Los Angeles Trade Technical College

ASSOCIATE DEGREE – GENERAL EDUCATION REQUIREMENTS

PLAN A • 2015–2016

Major / Area of Emphasis:	C	IP	N
Major Courses (min. 18 units)			
Electives			
Competency Met: **English101: Course/test**		**Math 125: Course or test**	**TOTAL**

C = Completed IP = In Progress N = Need

ASSOCIATE DEGREE GRADUATION REQUIREMENTS

I. **Unit Requirement:** 60 – 64 units of course credit in a selected curriculum. (6201.10)

II. **Scholarship Requirement:** A "C" (2.0) grade average or better in all work attempted in the curriculum upon which the degree is based. (6201.10)

III. Competency Requirements: (Administrative Regulation E-79)
The following courses and examinations are approved to meet the competency requirement for the Associate Degree as defined in Board Rule 6201.12:

For all students entering <u>prior</u> to Fall 2009	For all new / returning students entering beginning Fall 2009
A. Mathematics Competency - 1. Completion of one of the following courses (or its equivalent at another college) with a grade of "C" or better. **Mathematics 113 & 114, 115** or any higher-level mathematics course with a prerequisite of Mathematics 115 or its equivalent. **Electronics 10, 12, 14** **General Engineering Technology 121** **OR** 2. **Achievement of a score of 15 or higher** on the District Mathematics Competency Examination	**Mathematics Competency – May be met by completion of one of the following:** 1. **Completion of one of the following courses** (or its equivalent at another college) with a grade of "C" or better. **Math 125 or** any higher-level mathematics course with a prerequisite of Mathematics 125 or its equivalent. 2. **A passing score** on the District (Intermediate Algebra) Mathematics Competency Examination. **3.** **A score of 3 or higher** on one of the following AP Exams; Calculus AB, Calculus BC or Statistics**.** 4. **Completion of the college assessment exam in mathematics** and achieve a score determined comparable to satisfactory completion of intermediate algebra. That is, students who place into a mathematics course <u>above the level of intermediate algebra</u> have met the competency requirement. (BR 6201.12, Title 5 CCR, 55063)
B. Reading and Written Expression Competency – 1. Completion of one of the following courses) or its equivalent at another college) with a grade of "C" or better. **English 28** **English 101** **Journalism 101** 2. In meeting the Reading and Written Expression competency requirement, coursework is the primary measure of competency. However, competency may be met through credit-by-examination, as determined by the individual colleges.	**Reading and Written Expression Competency – May be met by completion of one of the following:** 1. **Completion of English 101** (or its equivalent at another college) with a grade of "C" or better. 2. **A score of 3 or higher** on one of the following AP Exams: English Language & Composition English Composition & Literature 3. In meeting the Reading and Written Expression competency requirement, coursework is the primary measure of competency. However, competency may be met through credit-by-examination, as determined by the individual colleges **4.** Complete the college assessment exam in English and achieve a score determined comparable to satisfactory completion of English 101. That is, students who place into an English course <u>above the level of English 101</u> have met the competency requirement (Title 5, CCR, section 55500)

IV. Residency Requirement: Completion of at least 12 units of work in residence and attendance at the college during the semester in which the requirements are completed. Exceptions may be made for injustice or undue hardship. (6201.13)

How to Choose the Correct General Education Plan

Students will follow either PLAN A or B depending on the number of units in their major. Please see a counselor and check the college catalog or the LATTC "Our Programs" webpage, http://college.lattc.edu/catalog/programs/ for specific major requirements

Student _____ Student ID _____

Los Angeles Trade Technical College

ASSOCIATE DEGREE – GENERAL EDUCATION REQUIREMENTS

PLAN B • 2015– 2016

General Education Requirements: Minimum of **18 semester units**.
Major Requirements: Minimum of 36 units in a single or related field. Effective for all students entering Fall 2014 or later, each course counted towards the major or area of emphasis requirement must be completed with a "C" (2.0 or equivalent) or better.

THIS FORM IS SUBJECT TO CHANGE EACH YEAR

Please see a counselor and check the college catalog or the LATTC homepage "Program Fact Sheets" for specific major requirements.

	C	IP	N
A. Natural Sciences ***3 Semester units minimum***			
ANTHRO 101; **ANATOMY** 1; **ASTRON** 1, 5^; **BIOLOGY** 3, 5, 6, 7; **CHEM** 51, 65, 70, 101, 102, 211, 212, 221; **CHEM TECH** 111, 121; **ELECTRN** 2; **ENV SCI** 1; **GEOG** 1; **GEOLOGY** 1, 6^; **MICRO** 1, 20; **PHYSICS** 1, 2, 3, 4, 6, 7, 11, 12, 14^; **PHYSIOL** 1; **PSYCH** 2 *^ these lab courses alone will not meet unit requirement*			
*OTHER COLLEGE COURSE*_____ *AP/IB/CLEP EXAM*_____			
B. SOCIAL AND BEHAVIORAL SCIENCES ***3 Semester units minimum***			
1. AMERICAN INSTITUTIONS			
HISTORY 11, 12, 41, 42, 43, 44; **LABOR ST** 4; **POL SCI** 1			
*OTHER COLLEGE COURSE*_____ *AP/IB/CLEP EXAM*_____			
C. HUMANITIES ***3 Semester units minimum***			
A S L 1, 2; **ARC** 130*, 131* (*only 2 sem. Units); **ART** 101, 102, 103, 201, 300, 501; **ENGLISH** 102, 203, 205 **ENGLISH** 206, 207, 208, 212, 215, 240; **FRENCH** 1, 2; **HISTORY 52; HUMAN** 1, 2; **KIN MAJ** 108 (formerly PHY ED 762); **LABOR ST** 21; **MUSIC** 101, 141; **PHILOS** 1; **SPANISH** 1, 2, 35, 36; **THEATER** 100; **VISCOM** 106*, 108*, 120*, 130* (*only 2 sem. Units)			
*OTHER COLLEGE COURSE*_____ *AP/IB/CLEP EXAM*_____			
D. LANGUAGE AND RATIONALITY ***6 Semester units minimum***			
D1. ENGLISH COMPOSITION (3 semester Units minimum)			
ENGLISH 28, **101**, 102**			
°Competency Requirements on page two for students entering prior to Fall 2009.			
D2. COMMUNICATION AND ANALYTICAL THINKING (at least 3 semester Units minimum)			
CO INFO 701; **ENGLISH** 103; **MATH** 114, 115, 121, **125** or higher; **PHILOS** 8			
°Competency Requirements on page two for students entering prior to Fall 2009.			
*OTHER COLLEGE COURSE*_____ *AP/IB/CLEP EXAM*_____			
E. HEALTH AND PHYSICAL EDUCATION ***3 Semester units minimum (area cannot be met with activity units only)***			
E1. HEALTH EDUCATION (2 semester Units minimum)			
HEALTH 2°, 6°, 8, 11, 12, 21, 43			
Note: °Health 2 or 6 includes physical education activity.			
E2. ONE PHYSICAL EDUCATION ACTIVITY (1 semester Unit minimum, unless exempt)			
KIN 300 to 350-1 any level, 387, 500; **KIN ATH** 504, 506, 513, 516, 517, 552, 554, 561			
*OTHER COLLEGE COURSE*_____ *MILITARY CREDIT (if applicable)*_____			

*** Courses can only be used in **one** GE category*

Updated 11/2015 (DRE) Counselor's Signature _____ Date _____

GRADUATION REQUIREMENTS

Los Angeles Trade Technical College

ASSOCIATE DEGREE – GENERAL EDUCATION REQUIREMENTS

PLAN B • 2015–2016

Major / Area of Emphasis:	C	IP	N
Major Courses (min. 36 units)			
Electives			
Competency Met: English 101: equiv. course or test ____ Math 125: equiv. course or test ____ **TOTAL**			

C = Completed IP = In Progress N = Need

ASSOCIATE DEGREE GRADUATION REQUIREMENTS

I. **Unit Requirement:** 60 – 64 units of course credit in a selected curriculum. (6201.10)

II. **Scholarship Requirement:** A "C" (2.0) grade average or better in all work attempted in the curriculum upon which the degree is based. (6201.10)

III. Competency Requirements: (Administrative Regulation E-79)
The following courses and examinations are approved to meet the competency requirement for the Associate Degree as defined in Board Rule 6201.12:

For all students entering prior to Fall 2009	For all new / returning students entering beginning Fall 2009
A. Mathematics Competency - 1. Completion of one of the following courses (or its equivalent at another college) with a grade of "C" or better. **Mathematics 114, 115** or any higher-level mathematics course with a prerequisite of Mathematics 115 or its equivalent. **Electronics 10, 12, 14** **General Engineering Technology 121** **OR** 2. **Achievement of a score of 15 or higher** on the District Mathematics Competency Examination	**Mathematics Competency –** **May be met by completion of one of the following:** 1. **Completion of one of the following courses** (or its equivalent at another college) with a grade of "C" or better. **Math 125 or** any higher-level mathematics course with a prerequisite of Mathematics 125 or its equivalent. 2. **A passing score** on the District (Intermediate Algebra) Mathematics Competency Examination. **3. A score of 3 or higher** on one of the following AP Exams; Calculus AB, Calculus BC or Statistics**.** 4. **Completion of the college assessment exam in mathematics** and achieve a score determined comparable to satisfactory completion of intermediate algebra. That is, students who place into a mathematics course above the level of intermediate algebra have met the competency requirement. (BR 6201.12, Title 5 CCR, 55063)
B. Reading and Written Expression Competency – 1. Completion of one of the following courses) or its equivalent at another college) with a grade of "C" or better. **English 28** **English 101** **Journalism 101** 2. In meeting the Reading and Written Expression competency requirement, coursework is the primary measure of competency. However, competency may be met through credit-by-examination, as determined by the individual colleges.	**Reading and Written Expression Competency –** **May be met by completion of one of the following:** 1. **Completion of English 101** (or its equivalent at another college) with a grade of "C" or better. 2. **A score of 3 or higher** on one of the following AP Exams: English Language & Composition English Composition & Literature 3. In meeting the Reading and Written Expression competency requirement, coursework is the primary measure of competency. However, competency may be met through credit-by-examination, as determined by the individual colleges **4.** Complete the college assessment exam in English and achieve a score determined comparable to satisfactory completion of English 101. That is, students who place into an English course above the level of English 101 have met the competency requirement. Title 5, CCR, section 55500

IV. **Residency Requirement:** Completion of at least 12 units of work in residence and attendance at the college during the semester in which the requirements are completed. Exceptions may be made for injustice or undue hardship. (6201.13)

2015 - 2016 CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION CHECK SHEET — 39 Units Required

Disclaimer: Every effort has been made to ensure that the information below is accurate and timely. However, this information is unofficial and should be checked against the official information found on the ASSIST website: www.assist.org

** COURSES LISTED IN MORE THAN ONE AREA SHALL NOT BE CERTIFIED IN MORE THAN ONE AREA

			units completed	units in progress	units needed	pass-along or exam
AREA A	**ENGLISH LANGUAGE COMMUNICATION & CRITICAL THINKING** **3 courses - Select ONE from each group: A1, A2 AND A3**	**9 sem. or 12 qtr. units**				
A1	**Oral Communication** • Communication Studies (formally Speech) 101	3 units				
A2	**Written Communication** • English 101, 101H	3 units				
A3	**Critical Thinking** • English 102, 102H, 103, 103H • Philosophy 8	3 units				
AREA B	**SCIENTIFIC INQUIRY & QUANTITATIVE REASONING** **3 courses: 1. Select ONE course from group B1 *Physical Science* AND ONE course from group B2 *Life Science*** **2. LAB requirement: At least ONE course from B1 OR B2 must include a corresponding lab. Eligible courses are identified with *** **3. Select ONE course from group B4; *Mathematics / Quantitative Reasoning***	**9-12 sem. or 12-15 qtr. units**	C	IP	N	pass-along or exam
B1	**Physical Science** • Astronomy 1, 5* • Chemistry 51*, 65*, 70*, 101*, 101H*, 102*, 102H*, 211*, 211H*, 212*, 212H*, 221*, 221H* • Earth Science 1 • Environmental Science 1 • Geography 1 • Geology 1, 6* • Physics 1*, 2*, 3*, 4*, 6*, 7*, 11*, 12, 14*	1 course				
B2	**Life Science** • Anatomy 1* • Anthropology 101, 101H • Biology 3*, 5*, 6*, 7* • Microbiology 1*, 20* • Physiology 1* • Psychology 2	1 course				
B3	**LABORATORY Requirement met with:** _____		☐	☐	☐	
B4	**Mathematics / Quantitative Reasoning** • Math 215, 225, 227, 235, 236, 240, 245, 260, 265, 266, 267, 270, 275	1 course				
AREA C	**ARTS & HUMANITIES** **Select 3 courses: at least ONE from each group C1 & C2**	**9 sem. or 12 qtr. units**	C	IP	N	pass-along or exam
C1	**Arts (Arts, Cinema, Dance, Music, Theater)** • Architecture 130 (2 units), 131 (2 units) • Art 101, 102, 103, 201, 501 • Music 101, 141, 141H • Theater 100					
C2	**Humanities (Literature, Philosophy, Languages Other than English)** • American Sign Language 1, 2 • English 102, 203, 205, 205H, 206, 206H, 207, 208, 212, 212H, 215, 215H, 240 • French 1, 2 • Humanities 1, 2 • Kinesiology Major 106 • Labor Studies 21 • Philosophy 1 • Spanish 1, 2, 35, 36					
AREA D	**SOCIAL SCIENCES** **Select 3 courses: at least ONE from TWO different disciplines.** **≠ denotes courses meeting CSU American Institution**	**9 sem. or 12 qtr. units**	C	IP	N	pass-along or exam
	≠ CSU GRADUATION REQUIREMENTS: The CSU graduation requirements listed below may be completed prior to transfer. AMERICAN INSTITUTIONS – 6 semester units or 9-12 quarter units, with one course selected from each group. These courses may also be credited toward satisfying GE requirements from Area D and are identified with this symbol ≠. Group 1: Political Science 1≠ (3 units). Group 2: History 11≠, 11H≠, 12≠, 41≠, 42≠ or 44≠ (3 units).					
	• Administration of Justice 1, 4, • Anthropology 102, 102H • Child Development 1** • Economics 1, 2 • Geography 2, 7 • History 11≠, 11H≠, 12≠, 12H, 41≠, 42≠, 43, 44≠, 52 (pending), 86, 87 • Labor Studies 4 • Political Science 1≠, 2, 7 • Psychology 1, 14, 32, 69 • Sociology 1, 2, 28**					
AREA E	**LIFELONG LEARNING & SELF-DEVELOPMENT** **KIN∞ courses considered activity are limited to one unit for this area**	**3 sem. or 4 qtr. units**	C	IP	N	pass-along or exam
	• Child Development 1** • Counseling 20 • Health 2, 6, 8, 11, 21, 43 • Kinesiology (activity) 300-1∞ thru 334-4∞, 387∞, 500∞ • Kinesiology Athletics 516∞ • Kinesiology Major 101 • Psychology 41 • Sociology 28**					

LAST NAME | FIRST NAME | M.I. | STUDENT ID

Counselor (print) _____ Counselor's Signature _____ Date _____ ◯ CSU Full Cert

Evaluator (print) _____ Evaluator's Signature _____ Date _____ ◯ CSU Partial Cert.

Los Angeles Trade-Technical College DRE:08-2015

GRADUATION REQUIREMENTS

2015 - 2016 CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION CHECK SHEET — 39 Units Required

CSU GE Policy & Information

- This CSU GE Plan totals approximately 39 units. A minimum of 60 CSU transferrable semester units is required for admission. You will need to complete additional coursework for your major and maybe some elective courses. Please consult **ASSIST.ORG** for specific major prep coursework and see a counselor to develop an Educational Plan.
- CSU GE Plan courses must be completed with a passing grade. At LATTC that is a grade of A, B, C, D, or P. **However, areas A1, A2, A3 and B4, must be completed with a "C" (2.0) or better.**
- Courses may be used only once to satisfy one GE area, even if they are listed in the course agreement under more than one subject area. Courses may be used to satisfy both CSU GE and major requirements.
- This advising form may not be the best general education preparation pathway for ALL majors (such as Engineering, Computer Science and Liberal Studies-Teacher Prep). Please consult with a counselor to determine the best plan to meet your educational goals.

WARNING: Many students attend multiple California Community College campuses. If that's you, be sure to follow the CSU GE at each college of attendance. CSU policy states that CSU coursework completed in a specific subject area will be used in the same area designated by the California Community College at which the course was completed. This is also the policy if you complete courses at more than one of the LACCD colleges.

Governed by CSU Executive Order 1100 www.calstate.edu/app/general_education.shtml
Note: USE www.assist.org to check admission and selection for impacted majors and programs.

CSU Admission Requirements

- **Golden Four:** ***All courses must be completed with a grade of "C" or better.***
  - **A1.** Communication Studies (formally Speech) 101
  - **A2.** English 101
  - **A3.** Critical Thinking (one course) English 102 or English 103 or Philosophy 8 (for CSULA take English 103, this also meets a graduation requirement)
  - **B 4.** Mathematics (one course) (Check your major requirements to make sure your math also satisfies this requirement)
- **60 transferrable units are required for admission to CSU as an upper division student.**

The Admission and unit requirements must be completed prior to admission

- Fall semester: completed by spring for following fall (September)
- Winter quarter: completed by summer for following winter quarter (January)
- Spring semester: completed by summer for following spring semester (January)
- Spring quarter: completed by fall for following spring quarter (March)

Certification is not automatic:

- You must meet with a counselor to review CSU GE completion.
- Official transcripts must be on file in Admissions & Records for GE credit from other institutions attended outside of LACCD.
- Counselor must sign this verification before submission to the Admissions & Records office.
- CSU GE must be fully certified to earn an AA-T or AS-T degree for CSU.

LAST NAME | FIRST NAME | M.I. | STUDENT ID

Los Angeles Trade-Technical College DRE:08-2015

2015 – 2016 IGETC CSU / UC GENERAL EDUCATION CHECK SHEET — 37 Units Required

Disclaimer: Every effort has been taken to ensure that the information below is accurate and timely. However, this information is unofficial and should be checked against the official information found on the ASSIST website: www.assist.org

** Courses listed in more than one area shall not be certified in more than one area except for ^Languages other than English, which can be certified in AREAS 3B and 6.

			units completed	units in progress	units needed	pass-along or exam
AREA 1	**ENGLISH COMMUNICATION** — 6-9 sem. or 9-12 qtr. UNITS *UC: 2 courses required, ONE each from **Group 1A and 1B** (6 semester units)* *CSU: 3 courses required, ONE from each **GROUP 1A, 1B & 1C** (9 semester units)*					
1A	**English Composition** — 3 units • English 101, 101H					
1B	**Critical Thinking – English Composition** — 3 units • English 102**, 102H, 103, 103H					
1C	**Oral Communication (CSU requirement only)** — 3 units • Communication Studies (formally Speech) 101					

			C	IP	N	pass-along or exam
AREA 2	**MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING** — 3-5 sem. or 4 qtr. UNITS					
2A	**Mathematics** • Math 225, 227, 235, 236, 245, 260, 265, 266, 267, 270, 275					
AREA 3	**ARTS & HUMANITIES** — 9 sem. or 12 qtr. UNITS **Select 3 courses: at least ONE from each group 3A AND 3B**					
3A	**Arts** • Art 101, 102, 103 • Music 101	• Theater 100**				
3B	**Humanities** • American Sign Language 2^ • English 102, 203, 205, 206, 206H, 207, 208, 212, 212H, 215, 215H, 240 • French 2^ • Humanities 1, 2	• Labor Studies 21 • Philosophy 1 • Spanish 2^ • Theater 100**				
AREA 4	**SOCIAL & BEHAVIORAL SCIENCES** — 9 sem. or 12 qtr. UNITS **Select 3 courses: at least ONE from any TWO different disciplines** **# denotes courses meeting CSU American History & Institutional graduation requirements**		C	IP	N	pass-along or exam
	• Administration of Justice 1, 4 • Anthropology 102, 102H • Child Development 1 • Economics 1, 2 • Geography 2, 7 • History 11#, 11H#, 12#, 12H, 41#, 42#, 43, 44#, 52 (pending), 86, 87 • Labor Studies 4 • Political Science 1#, 2, 7 • Psychology 1, 14, 32 • Sociology 1, 2, 28					
AREA 5	**PHYSICAL AND BIOLOGICAL SCIENCES** — 7-9 sem. or 10.5-12 qtr. units **Select 2 courses: at least ONE from Section 5A Physical Science AND at least ONE from Section 5B Biological Science** **LAB Requirement: at least ONE science course with a lab from 5A OR 5B (lab courses are identified with ≠)**		C	IP	N	pass-along or exam
5A	**Physical Science** — 1 course • Astronomy 1, 5≠ • Chemistry 51≠, 65≠, 70≠, 101≠, 101H≠, 102≠, 102H≠, 211≠, 211H≠, 212≠, 221≠, 221H≠ • Earth Science 1	• Environmental Science 1 • Geography 1 • Geology 1, 6≠ • Physics 1,≠ 2≠, 3≠, 4≠, 6≠, 7≠, 11≠, 12, 14≠				
5B	**Biological Science** — 1 course • Anatomy 1≠ • Anthropology 101, 101H • Biology 3≠, 5≠, 6≠, 7≠, (20≠ through Fall 2012)	• Microbiology 1≠, 20≠ • Physiology 1≠ • Psychology 2				
5C	**LAB Requirement** met with: _____		☐	☐	☐	

			C	IP	N	pass-along or exam
AREA 6	**LANGUAGES OTHER THAN ENGLISH** ***(UC Requirement Only)*** **Equivalency: 1 year of Foreign Language level 1**					
	• American Sign Language 1, 2^ • French 1, 2^ • Spanish 1, 2^, 35, 36	• 2 years of the same language Foreign Language from high school with "C's" or better (Need official HS transcripts). • Validation by completing level 2^ or higher in AREA 3B • AP Exam Language with score of 3 or higher (Need official AP scores)				
CSU:AI	**CSU GRADUATION REQUIREMENTS IN AMERICAN INSTITUTIONS (CSU Only)** **Select ONE course from A. AND B.** **CSU Requirement in U.S. History, Constitution, and American Ideals. Not part of IGETC, but may be completed prior to transfer. These courses may be satisfied in Area 4. *# denotes eligible courses.***		C	IP	N	pass-along or exam
	A. Political Science 1# **B.** History 11#, 11H#, 12#, 41#, 42#, 44#					

Counselor (print) _____ Counselor's Signature _____ Date _____

Evaluator (print) _____ Evaluator's Signature _____ Date _____

- ◯ **Full Certification UC**
- ◯ **Partial Cert. UC**
- ◯ **Full UC/CSU Cert.** *Area 1C completed*

Los Angeles Trade-Technical College DRE: 07--2015

LAST NAME FIRST NAME M.I. STUDENT ID

GRADUATION REQUIREMENTS

2015 – 2016 IGETC CSU / UC GENERAL EDUCATION CHECK SHEET — 37 Units Required

This IGETC Plan totals approximately 34-37 CSU / UC transferrable semester units. A minimum of 60 transferrable semester units is required for transfer. You will need to complete additional coursework in your major and maybe some elective courses. Transferring to highly selective UC campuses prioritizes major prep for admission selection. Please visit the ASSIST website www.assist.org and consult with a counselor to develop an Educational Plan so that you can reach your goals.

LAST NAME

FIRST NAME

M.I.

STUDENT ID

IGETC Standards

- Courses must be a minimum of 3 semester / 4 quarter units to meet the requirements for IGETC (except area 5C).
- A minimum of a "C" grade is required in each college course for IGETC
- A "C" is defined as a minimum of 2.0 grade points on a 4.0 scale

Governed by IGETC Standards: www.ccctransfer.org

IGETC Policy & Information

- To be certified, all courses must be completed with a grade of "C" or better. A grade of "P" (pass) may be used if the grading policy of the community college states that "P" is equivalent to a grade of "C" or better. The UC will allow no more than 14 semester units taken with "P" towards eligibility for IGETC.
- Courses may be used only once to satisfy one IGETC subject area, even if they are listed in the course agreement under more than one subject area. Courses may be used to satisfy both IGETC and major requirements.
- ***Which type of student should NOT follow IGETC:***
  Certain students, however, will not be well served by following IGETC. Students who intend to transfer into majors that require extensive lower-division preparation, such as engineering or the physical and natural sciences, should concentrate on completing the many prerequisites for the major that the college screens for to determine eligibility for admission.
- UC AREA 6: Language other than English- IGETC Standards: Additional mechanisms to demonstrate competency: (1) Satisfactory completion, with "C" grade or better, of two years of formal schooling at the sixth grade level or higher in an institution where the language of instruction is not English; (2) AP exam with a score of 3 or higher; or IB exam with a 5 or higher. (3) SAT language scores (see counselor to review IGETC standards); (4). Validating proficiency by completing a higher level language course.
- When combining quarter and semester unit values within an IGETC area, units shall be converted to either all quarter units or all semester units to best serve the student.

WARNING: Many students attend multiple California Community College campuses. If that's you, be sure to follow the IGETC pattern at each college of attendance. IGETC policy states that coursework completed in a specific subject area will be used in the same area designated by the California Community College at which the course was completed. This is also the policy if you complete courses at more than one of the Los Angeles Community College District (LACCD) colleges.

Certification is not automatic:

- You must meet with a counselor to review IGETC completion.
- Official transcripts must be on file in Admissions & Records for GE credit from other institutions attended outside of LACCD.
- Counselor must sign this verification before submission to the Admissions & Records office.
- To be certified IGETC must be completed in FULL. All course grades must be posted and transcripts on file for certification.
- Students using IGETC for CSU AA-T or AS-T degrees must be fully certified for UC/CSU. Area 1C is a CSU admissions requirement.
- Students who do not complete IGETC before transferring will be required to satisfy the specific lower-division general education/breadth requirements of the UC's college or school they attend. However, California community colleges may grant ***partial certification of IGETC*** **to students who are missing** ***no more than two requirements,*** other than Areas 1 and 2. Students submitting partial IGETC certification should complete the missing requirements at either UC or a California community college as designated by their department. Students who have been granted partial IGETC certification should not return to the community college for a full certification.

Los Angeles Trade-Technical College DRE: 07--2015

Learning Outcome Information

Outcomes are used to describe the anticipated or achieved results of programs, courses or the accomplishment of institutional objectives. Los Angeles Trade Technical College identified and assesses the following four different types of student-related outcomes:

INSTITUTIONAL LEARNING OUTCOMES (ILOS)

The ILOs represent the broad categories of competence that enable students to be successful in further education, in careers, as citizens, and in their personal lives. Upon completion of a degree, students will be able to:

- Use critical thinking skills to gather, identify, analyze, synthesize information, and evaluate problems and solutions.
- Use visual, numerical, verbal, written, and practical skills to create useful and original products.
- Demonstrate technical skills that meet industry and/or employment standards.
- Demonstrate effective communication and comprehension skills.
- Demonstrate ability to interface in a culturally diverse socio-economic environment.

GENERAL EDUCATION LEARNING OUTCOMES (GELOS)

LATTCs general education programs are distinctively unique, characteristically interdisciplinary, and a constant and integral component of an associate's degree. General Education Learning Outcomes (GELOs) statements for each area are listed below:

Ethical and Effective Citizenship (ACCJC Standard II.A.11)

- A recognition of what it means to be an ethical human being and effective citizen. Qualities include an appreciation of ethical principles; civility and interpersonal skills; respect for cultural diversity; historical and aesthetic sensitivity; and the willingness to assume civic, political, and social responsibilities locally, nationally, and globally.

Humanities

- Examine the human response to the world around them through artistic and cultural creation.
- Demonstrate an understanding and appreciation of the ways in which arts, literature, philosophy, or foreign languages reflect historical, intellectual, and cultural contexts, as well as aesthetic tastes.

Natural Sciences

- Demonstrate a knowledge of natural phenomena and recognize the processes that explain them.
- Assess the relationships between science and other human activities through the examination of the physical universe, its life forms, and its natural phenomena. Language and Rationality
- Apply formal systems of reasoning in solving problems or analyzing arguments.
- Critically evaluate communication in a symbol system appropriate to the academic discipline being studied.

Behavioral and Social Sciences

- Demonstrate an understanding of the perspectives, theories, methods, and core concepts of the social and behavioral sciences.
- Explain the major problems and issues in the disciplines in their contemporary, historical, and geographical contexts.

Health and Kinesiology

- Demonstrate awareness of attributes for healthy physical and psychological life styles.
- Practice proper techniques and skills as related to the designated physical activities.

PROGRAM LEARNING OUTCOMES (PLOS)

PLOs describe the measurable characteristics including knowledge, skills, abilities, and determining behaviors that students will be able to demonstrate by the time they complete a program. PLOs by program can be found in the Credit Degree and Certificate Programs section of this catalog and in the program factsheets posted on the website at (http://college.lattc.edu/catalog/programs/).

STUDENT LEARNING OUTCOMES (SLOS)

SLOs identify what the student will know and be able to do by the end of a course– the essential and enduring knowledge, abilities (skills) and attitudes (values, dispositions) that constitute the integrated learning needed by a graduate of a course. SLOs by course can be found in the Course Description section of this catalog.

Educational Programs and Courses

LATTC Certificate and Degree Program by Definition

A description and requirements for each program offered at the college is provided in the following section. The College's website also contains the following additional program-related information:

- Gainful Employment information: tuition and fees, books and supplies, program length and completers (http://college.lattc.edu/catalog/programs/).
- Employment projections and occupational profiles (https://lattc.emsicareercoach.com/).
- Standards for student achievement (ISS) (http://college.lattc.edu/research/accountability/institution-set-standards/).

Associate Degrees Programs

Title 5 § 55000m defines an "educational program" as an organized sequence of courses leading to a defined objective, a degree, a certificate, a diploma, a license, or transfer to another institution of higher education. Associate in Science (AS) and Associate in Arts (AA) degree programs are composed of two parts: major program requirements and electives, and general education program requirements. The Associate in Arts or the Associate in Science degree is granted when a student satisfactorily completes an organized program of study consisting of a minimum of 60 degree applicable semester units which includes general education and major requirements. The specific degree requirements, electives, and general education graduation plan — are provided for each degree program on the following pages.

Associate Degrees for Transfer Programs

Associate in Arts Transfer (AA-T) or the Associate in Science Transfer (AS-T) degrees make the transfer to the California State University (CSU) system smoother and are designed to align student coursework at the community college with courses offered at the CSU. Students must complete 60 semester units including a minimum of 18 semester units in a major or area of emphasis, and the GE requirements with a minimum 2.0 GPA.

Certificate of Achievement Programs

A Certificate of Achievement is issued in State-approved programs designed for students who are looking for instruction with a high degree of specialization. Certificate of Achievement programs vary in length, ranging anywhere from 12 or more semester units and may be pursued on a full-time or part-time basis.

Noncredit Programs

Noncredit programs are an organized sequence of two or more courses leading to a defined objective, certificate, a diploma, or license. Noncredit programs at Los Angeles Trade-Technical College generally fall into these two program areas: career development and college preparation, or career technical programs with "high employment potential" that provide 288 hours or more of instruction. Courses comprising noncredit programs are not applicable to a credit certificate or degree program.

Apprenticeship Programs

Apprenticeship programs prepare students for any profession, trade, or craft that are learned through a combination of supervised, on-the-job training with off-the-job formal education. Los Angeles Trade-Technical College's apprenticeship programs are intended for students who are indentured to learn a trade under agreement with the State of California Division of Apprenticeship Standards. As such these programs are restricted to indentured apprentices only.

Degree and Certificate Listing

The degree and certificate programs in the table below are grouped in related areas by Top Codes. Detailed degree and certificate information is located alphabetically in the Credit Degree and Certificate Programs section of this catalog and in the program factsheets posted on the website at (http://college.lattc.edu/catalog/programs/).

Degree and Certificate Listing

The degree and certificate programs in the table below are grouped in related areas by Top Codes. Detailed degree and certificate information is located alphabetically in the Credit Degree and Certificate Programs section of the catalog.

PROGRAM TITLE	DEGREE	CERT.	MAJOR UNITS	TOP CODE
Accounting				
Accounting	AA		47	0502.00
Accounting Clerk		C	30	0502.00
Administration of Justice				
Administration of Justice	AST		18	2105.00
Correctional Science	AS	C	36	2105.10
Architectural Technology	AA	C	47	0201.00
Automotive Collision Repair				
Automotive Collision Repair	AS		46	0949.00
Automotive Collision Repair		C	36	0949.00
Automotive Technology				
Automotive and Related Technology	AS	C	36	0948.00
Auto & Related Technology: Transmission Repair		C	18	0948.00
Auto & Related Technology: Tune-Up		C	18	0948.00
Hybrid & Electric Plug-In Vehicle Technology		C	12	0948.40
Biotechnology	AS	C	33	0430.00
Business Management				
Management/Supervision	AA		47	0506.30
Management/Supervision		C	33	0506.30
Small Business Entrepreneurship		C	32	0506.40
Retail Management	AA		47	0506.50
Carpentry				
Carpentry	AS	C	48	0952.10
Carpentry - Construction Technologies	AA	C	48	0952.10
Chemical Technology	AS	C	47	0955.00
Chemistry	AS		38	1905.00
Child Development/Early Care and Education				
Child Development Plan A	AA		31	1305.00
Child Development: Plan B	AA		47	1305.00
Early Childhood Education	AST		25	1305.00
Infant/Toddler Teacher		C	27	1305.00
Preschool Associate Teacher		C	15	1305.00
Preschool Teacher		C	35	1305.00
School Age Program Teacher		C	33	1305.00
Site Supervisor		C	43	1305.00
Teacher with Special Needs		C	30	1305.00
Community Planning & Economic Development		C	21	2199.00
Computer Applications & Office Technology				
CAOT: Administrative Asst	AA		43	0514.00
CAOT: Administrative Asst		C	31	0514.00
CAOT: Information Processing Specialist	AA		44	0514.00
CAOT: Information Processing Specialist		C	33	0514.00
CAOT: Office Assistant-Clerical	AA		42	0514.00
CAOT: Office Assistant-Clerical		C	34	0514.00
Medical Office Assistant		C	32	0514.20
Computer Information Systems	AS	C	45	0702.00
Cosmetology, Skin Therapy and Barbering				
Barbering		C	48	3007.00
Cosmetology	AA	C	48	3007.00
Skin Therapy		C	24	3007.00
Culinary Arts, Baking and Restaurant Management				
Baking Professional	AA	C	48	1306.30
Culinary Arts	AA	C	48	1306.30
Restaurant Management	AA		42	1307.10
Diesel and Related Technologies				
Diesel and Related Technology	AS	C	45	0947.00
Hybrid & Electric Plug-In Vehicle Technology		C	12	0948.40
Electrical				
Electrical Construction & Maintenance	AS	C	42-48	0952.20
Electrical Construction & Maintenance: Construction Tech	AA	C	48	0952.20
Electronics and Electric Technology				
Electronics Communications	AS	C	44	0934.30
Microcomputer Technician	AS	C	42	0934.10
English	AA-T		18	1501.00

PROGRAM TITLE	DEGREE	CERT.	MAJOR UNITS	TOP CODE
Environmental Control Technology				
Operation & Maintenance Engineering: Steam Plant		C	36	0946.00
Refrigeration & Air Conditioning Mechanics	AS	C	48	0946.00
Renewable Energy: Energy Efficiency Emphasis	AS		40-42	0946.10
Weatherization and Energy Efficiency		C	12	0946.10
Energy Systems Technology Fundamentals		C	16	0946.10
Renewable Energy Technician: Solar PV Installation and Maintenance	AS		42	0946.10
Solar PV Installation and Maintenance Technician		C	24-26	0946.10
Renewable Energy Technician: Solar Thermal	AS		42	0946.10
Solar Thermal Installation & Maintenance Technician		C	30	0946.10
Fashion Design, Merchandising and Production				
Fashion Design	AA	C	46	1303.10
Fashion Technology	AA		42	1303.10
Fashion Technology		C	28	1303.10
Fashion Merchandising	AS	C	45	1303.20
Tailoring		C	20	1303.30
Industrial Systems Technology and Maintenance				
Renewable Energy Generation, Transmission & Distribution: Powerline Mechanic	AS		40-43	0945.00
Powerline Mechanic		C	18-20	0945.00
Utility Industry Fundamentals		C	19-21	0945.00
Kinesiology	AA-T		20-23	1270.00
Labor Studies				
Labor Studies	AA		36	0516.00
Labor Studies		C	24	0516.00
Liberal Arts & Sciences				
Interdisciplinary Studies: Arts & Sciences	AA		49	4901.00
Liberal Arts and Sciences: Natural Sciences	AA		18	4902.00
Machine Shop: CNC	AS	C	48	0956.30
Marketing and Public Relations				
Marketing and Public Relations	AA		44	0509.00
Marketing and Public Relations		C	33	0509.00
Mathematics	AS-T		21-22	1701.00
Motorcycle Repair Mechanics-Adjunct		C	23	0948.30
Nursing				
Nursing, Registered	AS		42	1230.10
Nursing, Registered - LVN-RN Career Ladder	AS		33	1230.10
LVN to RN 30-Unit Option			30	
Paralegal Studies	AA	C	42	1402.00
Plumbing				
Plumbing	AS	C	48	0952.30
Plumbing: Construction Tech	AA	C	45	0952.30
Process Technology	AS	C	45	0999.00
Real Estate				
Real Estate	AA		45	0511.00
Real Estate		C	30	0511.00
Sign Graphics & Visual Communications				
Sign Graphics	AA	C	44	1013.00
Visual Communications	AA	C	48	1013.00
Solid Waste Management Technology		C	24	0999.00
Street Maintenance Technology	AA	C	30	2102.10
Water and Wastewater Technology				
Water Systems Technology: Supply Water Technology	AS		22	0958.00
Supply Water Systems Technology		C	22	0958.00
Wastewater Systems Technology	AS		21	0958.00
Welding Technology				
Welding, Gas and Electric	AS	C	48	0956.50
Welding, Gas and Electric: Construction Technologies		C	28	0956.50
Noncredit - Continuing Education				
College Readiness		CN		4930.62
ESL: Beginning		CN		4930.82
Workplace Readiness Certificate of Completion		CN		4930.12

8. Credit Degree and Certificate Programs

ACCOUNTING

Department: **Business and Entrepreneurial Related Programs**
Department Chair: **Benjamin Goldstein, JH-523**
213-763-7051, GoldstBD@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Accounting	A.A.	Plan B	47	-	47
Accounting Clerk	C		30	-	30
At least 60 degree applicable units (47 total major units and Plan B units) are required to earn an Associate degree.					

PROGRAM OVERVIEW

The Accounting program offers occupational training to students who plan to work in general and corporate accounting. Instruction is provided in financial and managerial accounting theory and in various practical aspects of the accounting field. General accountants record transactions involving receivables, payables, payroll, and property into a general ledger and examine the financial records for compliance with accounting standards and applicable laws. Corporate accountants record financial transactions, analyze and evaluate financial records, apply tax law and finance techniques, and may design and implement accounting/ bookkeeping systems and procedures.

By fulfilling the program requirements, students are proficient in the application of basic financial and managerial accounting principles and techniques. Students will be adept at analyzing and recording economic transactions using Generally Accepted Accounting Principles (GAAP) and relevant computer applications. Students will understand the application of accounting principles and techniques to service, merchandising, and manufacturing businesses.

Typical positions are bookkeeper, accounting clerk, junior accountant and tax preparer. Courses required for the Accounting Clerk Certificate are designed to prepare students for entry level positions in specialized occupational areas after 2 to 3 semesters of study

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Analyze and apply accounting theory to service and merchandising.
- Employ managerial and cost accounting principles.
- Apply business laws to the business environment.
- Utilize specialized ledgers and software to record and process expenditures.
- Prepare and process payroll records and reports in compliance with state and federal requirements.
- Analyze and prepare financial statements in accordance with accounting principles.
- Use the Internal Revenue Code as it relates to individual, partnership, and corporation income taxes.
- Demonstrate effective business communication skills.

ACCOUNTING

Associate in Arts Degree

Major Units: 47

Requirements for the Associate in Arts degree in Accounting may be met by completing 47 units of Required Courses with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

REQUIRED COURSES

SEMESTER I		UNITS
BUS 001	Introduction to Business	3
BUS 032	Business Communications	3
-or- BUS 033	*Technical Report Writing (3)*	
BUS 038	Business Computations	3
CAOT 082	Microcomputer Software Survey in the Office	3
SUPV 011	Oral Communications	3

SEMESTER II		UNITS
ACCTG 001	Introductory Accounting I	5
ACCTG 025	Computerized Accounting Methods and Procedures (Spring only)	3
ECON 002	Principle of Economics II	3
OFF MCH 002	Office Machines	1

SEMESTER III		UNITS
ACCTG 002	Introductory Accounting II	5
BUS 005	Business Law I	3
CAOT 085	Microcomputer Office Applications: Spreadsheet	3

SEMESTER IV		UNITS
ACCTG 003	Intermediate Accounting	3
ACCTG 011	Cost Accounting	3
ACCTG 015	Tax Accounting or Computerized	3
-or- ACCTG 018	*Payroll Accounting (3)*	

NOTE: Students planning for a career in financial accounting may wish to take Accounting 003 offered in the FALL semester.

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ACCOUNTING CLERK

Certificate of Achievement
Major Units: 30

A Certificate of Achievement in Accounting Clerk may be earned by completing 30 units of Required Courses with a "C" or better in each course.

The Accounting certificate program offers occupational training to the student who plans to work in general and corporate accounting. General accountants record transactions involving receivables, payables, payroll, and property into a general ledger and examine the financial records for compliance with accounting standards and applicable laws. Many of the courses offer practical accounting training to the owner/operators of a small business.

Courses required for the Accounting Clerk Certificate are designed to prepare students for entry level positions in specialized occupational areas. Students will understand the application of the accounting principles and techniques to service, merchandising, and manufacturing businesses. Typical positions are bookkeeper, accounting clerk, junior accountant and tax preparer.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

- Apply math knowledge, attention to detail, and familiarity with basic accounting procedures to provide clerical and accounting support for an accounting department.
- Demonstrate effective business communication skills.
- Utilize specialized ledgers and software, such as Quickbooks, to record and process expenditures, receipts, payroll, and other financial transactions for a business or organization

REQUIRED COURSES

SEMESTER I		UNITS
ACCTG 001	Introductory Accounting I	5
BUS 001	Introduction to Business	3
BUS 038	Business Computations	3
CAOT 082	Microcomputer Software Survey in the Office	3
OFF MCH 002	Office Machines	1

SEMESTER II		UNITS
ACCTG 015	Tax Accounting or Computerized	3
-or- ACCTG 018	*Payroll Accounting (3)*	
ACCTG 025	Computerized Accounting Methods and Procedures	3
ECON 002	Principles of Economics II	3
CAOT 085	Microcomputer Office Applications: Spreadsheet	3
SUPV 011	Oral Communications	3

ADMINISTRATION OF JUSTICE

Department: Behavioral/Social Sciences/Child Development
Department Chair: Dr. Freddie McClain, Room AH-516
(213) 763-3936, McClaiF@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Administration of Justice	AST	CSU/ IGETC	18		18

PROGRAM OVERVIEW

The Associate in Science in Administration of Justice for Transfer (AS-T) prepares students for entry-level positions as police officers, police reserve officers, police assistants, and community service officers in police and sheriff's departments and for positions in private security as well as preparation for careers in probation, parole, and federal law enforcement agencies.

Emphasis is on critical thinking, oral communication skills, and writing skills essential to today's law enforcement employees. Students are kept informed of changes in law enforcement such as community policing, laws of arrest, search and seizure, and updates to the state penal code. Role playing and Moot court presentation are included to enhance oral communication skills and preparation of written reports. Training is also provided in the area of crime analysis and use of computer technology in law enforcement.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree** program, students are able to:

- Identify the education stages to successfully enter a law enforcement academy consisting of academics, physical training, firearms and Code of Ethics requirements for the law enforcement officer as a professional.
- Demonstrate fundamental knowledge of the law enforcement profession consisting of the role of the police, courts and corrections.
- Explain an understanding of the role of the community in a partnership with law enforcement including, but not limited to interpersonal skills of effective written and oral communications plus critical thinking required of a law enforcement officer.
- Outline and discuss the moral/legal aspects of the use of firearms, impact weapons, chemical agents, Laws of Evidence, the preparation of search warrants and the collection of physical evidence at a crime scene.

The Associate in Science in Administration of Justice for Transfer (AS-T) degree will be awarded upon completion of the following:

- Completion of 60 transferable semester units to the California State University.
- Obtainment of a minimum grade point average of 2.0 in all transferable coursework.
- Full completion of one the following General education patterns:
- The Intersegmental General Education Transfer Curriculum (IGETC), with "C"s or better in all coursework AND completion of Area 1C Oral communication (CSU admission requirement)
- California State University General Education – Breadth Requirements (CSU GE). Areas A1, A2, A3, & B4 must be completed with a grade of "C" or better (CSU admission requirement)
- A minimum of 18 semester units required for the major
- All courses in the major must be completed with a grade of "C" or better or a "P" if the course is taken on a "Pass-No Pass" basis (Title 5 § 55063).
- NOTE: Up to 6 units may be completed outside of LATTC. However those courses must be C-ID approved for the major on that campus. Check with a counselor or www.ASSIST.org

ADMINISTRATION OF JUSTICE (AS-T)

Associate in Science for Transfer

Major Units: 18

REQUIRED TWO COURSES

SEMESTER I		UNITS
ADM JUS 001	Intro Administration of Justice	3
ADM JUS 002	Concepts of Criminal Law	3

LIST A: SELECT 2 COURSES FROM BELOW (6 UNITS)

ADM JUS 003	Legal Aspects of Evidence	3
ADM JUS 005	Criminal Investigation	3
ADM JUS 067	Community Relations I	3
ADM JUS 004	Principals & Procedures of the Justice System	3
ADM JUS 008	Juvenile Procedures	3
ADM JUS 075	Introduction to Corrections	3

LIST B: SELECT 2 COURSES FROM BELOW (6 UNITS)

Any course NOT used in List A or:

MATH 225	Introductory Statistics	3
PSYCH 001	General Psychology I	3
SOC 001	Introduction to Sociology	3

MAJOR REQUIRED SUBTOTAL	18 units
CSU or IGETC for CSU GE Pattern	37-39 units
CSU Transferable Elective units	(as needed to reach 60 units)
TOTAL CSU transferrable units	60 units

ARCHITECTURE TECHNOLOGY

Department: Construction, Design, and Manufacturing
Department Chair: Mr. William (Bill) Elarton, Room SQ-122
(213) 763-3701, cdm@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Architectural Technology	A.A.	Plan B	46	1	47
Architectural Technology	C		46	1	47
At least 60 degree applicable units (47 total major units and Plan B units) are required to earn an Associate degree.					

PROGRAM OVERVIEW

In keeping with the LATTC and Construction, Design, and manufacturing mission, we offer transfer courses and provide assistance with job placement in various venues, including architectural, urban planning and engineering offices; construction management firms; the construction manufacturing industry; and government agencies. We meet Leadership in Energy and Environmental Design (LEED) standards and use sustainable design strategies and current computer tools (including Global Positioning System—GPS, CFM, Computer-aided design—CAD, Geographic Information System—GIS, Building Information Modeling—BIM, 3-D modeling and others) to record, organize, design and maintain the life cycle of the built environment.

Our courses are integrated and comprehensive, covering four clusters of study: 1) design/space-planning/programming; 2) construction documents/BIM; 3) building systems/materials/historical context; and 4) sustainable tools, such



as BIM, GPS, CAD, GIS, 3-D modeling, and simulation. Every class includes training in organizational skills, time management, teamwork, communication and digital file management, and the equipment used in the classroom is the same found in professional offices.

In the architecture design program, students learn additional skills, such as prototyping, visualization, conceptualization, 3-D composition, lighting, proportion, sketching and modeling.

This critical foundational knowledge can be applied to the fields of industrial design, toy design, furniture design, interior design, landscape architecture, set design and virtual reality spaces.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Demonstrate the use of building codes, industry standards, sustainable practices, critical knowledge skills and structural principles to draw with BIM/CAD /GIS a set of construction documents, fabrication drawings and shop drawings for the field of architecture, landscape design, industrial design and mechanical / electrical / plumbing engineering
- Demonstrate the use of drawing and model building, as a thinking tool to transform ideas and humans' needs into design solutions by using mathematical and geometrical composition learned from nature and the universe.
- Demonstrate skill and proficiency in CADD (computer-aided drafting and design), BIM (building Information Model), GIS (geospatial information system) by showing technical mastery in the use of industry standard tools, through community based projects and template creations.
- Demonstrate and design solutions for building systems, sustainable materials, contextualized history, building life cycle design approach, product design, neighborhood revitalization, sustainable campus design, and resilient cities

ARCHITECTURAL TECHNOLOGY

Associate in Arts Degree

Major Units: 47

Requirements for the Associate in Arts degree in Architectural Technology may be met by completing 46 units of Required Courses and 1 unit of Major Electives with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

By fulfilling the program requirements, students will have the skills needed to enter the field as an Architectural Technician who is both a problem solver and an integral part of the design process. Students will master the skills necessary to work in the construction, drafting, estimating, building inspection, civil, electrical, mechanical and structural engineering, construction computer rendering, and computer-aided drawing arenas. General education classes provide a well rounded education, imparting the knowledge and skills needed to successfully participate in all aspects of society.

REQUIRED COURSES

SEMESTER I		UNITS
INT 200	Residential Planning	3
ARC 130	History of Architecture I	2
ARC 172	Architectural Drawing I	3
DRAFT 062	C.A.D.D. for Architects	3

SEMESTER II		UNITS
ENV 101	Foundations of Design I	3
ARC 151	Materials of Construction	3
ARC 173	Architectural Drawing II	3
ARC 261	Computer-Aided Design for Architecture I	3

SEMESTER III		UNITS
ARC 131	History of Architecture II	2
ARC 201	Architectural Design I	3
ARC 271	Architectural Drawing III	3
DRAFT 063	C.A.D.D. for Building Systems	3

SEMESTER IV		UNITS
ARC 152	Equipment of Buildings	3
ARC 202	Basic Architectural Design II	3
ARC 341	GIS Metropolitan Access Planning Systems I	3
DRAFT 010	CADD for Sustainable Landscape Design	4

MAJOR ELECTIVES

Select at least 1 unit from the courses below		UNITS
ARC 135 †	Historic Preservation	2
ARC 160	Computers for Designer	3
DRAFT 060 †	CADD Introduction	3
DRAFT 064 †	C.A.D.D. Laboratory	3

ARCHITECTURAL TECHNOLOGY

Certificate of Achievement

Major Units: 47

^ Certificate of Achievement in Architectural Technology may be earned by completing 46 units of Required Courses and 1 unit of Major Electives listed under for the Associates degree in Architectural Technology with a "C" or better each course.

† Course currently unavailable



AUTOMOTIVE COLLISION REPAIR

Department: **Advanced Transportation & Manufacturing**
Department Chair: **Mr. Jess Guerra, Room F-212E**
(213) 763-3919, GuerraJ@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Automotive Collision Repair	A.S.	Plan B	36	10	46
Automotive Collision Repair	C		36	-	36
At least 60 degree applicable units (36 total major units and Plan B units) are required to earn an Associate degree. For additional related degrees and certificates, refer to programs under Automotive Technology, Diesel and Related Technologies, and Motorcycle Repair Mechanics.					

PROGRAM OVERVIEW

Los Angeles is a leading collision capital center in the automotive design world. Insurance companies are increasingly demanding Auto Collision Technicians trained in damage cost estimations. The demand for fully trained Automotive Repair Technicians is very high where skilled technicians are readily employable and command excellent incomes. These technicians use highly sophisticated devices, such as laser for straightening frames, computer for mixing paint, and dust control contamination vacuum tools for smoothing paint.

The LATTC Automotive Collision Repair program is designed for students who want to enter this growing field. Classes are a combination of classroom instruction coupled with hands-on training. Students learn welding procedures, diagnostic and repair procedures, body part alignment processes, metal finishing/shrinking/filling techniques, auto body electrical wiring systems, body section replacement and structural sectioning practices, body damage estimating techniques, auto body construction methods, paint color application skills, and body shop practices.

By fulfilling the program requirements, students are proficient in a variety of automotive collision techniques and will have the knowledge and skills necessary to maintain, repair, and diagnose body and fender repairs. They will be proficient at all aspects of preparation and painting, including computerized mixing and matching, damage estimation, creating computerized reports and digital imaging. Students who complete this degree will be able to perform jobs as estimators, service managers equipped to repair problems occurring in automotive collision systems.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Identify and repair a variety of vehicle bodies with different frame types, components, and structure chemistries while adhering to industry standard procedures.
- Demonstrate efficiency in the use of various paints, primers, sealers and tools required to complete collision repairs on a vehicle.
- Write collision repair estimates using industry recognized computer software in accordance with industry standards.

AUTOMOTIVE COLLISION REPAIR

Associate in Science Degree

Major Units: 46

Requirements for the Associate in Science degree in Automotive Collision Repair may be met by completing 36 units of Required Courses and 10 units of Major Electives with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

REQUIRED COURSES

SEMESTER I		UNITS
AUTOCOR 112	Auto Body Construction, Repair And Welding Fundamentals	9
SEMESTER II		**UNITS**
AUTOCOR 122	Intermediate Collision Repair-Parts Replacement, Metal Repair, Frame Straightening & Refinishing	9
SEMESTER III		**UNITS**
AUTOCOR 132	Unitized Body Panel, Section, & Frame; Replacement & Alignment	9
SEMESTER IV		**UNITS**
AUTOCOR 142	Advanced Automotive Collison Repair, Estimating, Refinishing, Color Matching	9

MAJOR ELECTIVES

Select at least 10 units from the courses below		UNITS
AUTOCOR 148	Paint Preparation and Application	3
AUTOCOR 149	Estimating Body Damage	3
AUTOCOR 185	Directed Study - Automotive Collision Repair	1
AUTOCOR 226	Auto Collision Repair I	3
AUTOCOR 227	Auto Body & Fender II	3

NOTE: Students are required to provide basic hand tools, Transportation Technology uniform and personal safety equipment.

AUTOMOTIVE COLLISION REPAIR

Certificate of Achievement

Major Units: 36

A Certificate of Achievement in Automotive Collision Repair may be earned by completing 36 units of Required Courses listed under for the Associates degree in Automotive Collision Repair with a "C" or better in each course.

A Certificate of Achievement is awarded for the completion of 36 units in the first through fourth semester Required Courses listed above. This program includes DuPont Paint Systems Certificate of Achievement for Rule 1151 of the South Coast Air Quality Management District (SCAQMD).

AUTOMOTIVE AND RELATED TECHNOLOGY

Department: Advanced Transportation & Manufacturing
Department Chair: Mr. Jess Guerra, Room F-212E
(213) 763-3919, GuerraJ@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Automotive and Related Technology	A.S.	Plan B	36	-	36
Automotive and Related Technology	C		36	-	36
Automotive and Related Technology: Tune-up	C		18	-	18
Automotive and Related Technology: Transmission Repair	C		18	-	18

At least 60 degree applicable units (36 total major units and Plan B units) are required to earn an Associate degree.

For additional related degrees and certificates, refer to programs under Automotive Collision Repair, Diesel and Related Technologies, and Motorcycle Repair Mechanics.

PROGRAM OVERVIEW

Los Angeles' long-time infatuation with the motorcar has made it a leading center in automotive design. Employment opportunities continue to thrive, and the demand for trained automotive technicians in the filed continues to increase. The Automotive and Related Technology program trains students to work as professionals in this field, offering instruction in maintenance, diagnosis and overhaul procedures of electrical and fuel injection systems.

By fulfilling the program requirements, students will have gained the skills necessary to maintain, repair, and diagnose electrical, fuel injection systems, and overhaul procedures, as well as basic shop practices needed to meet industry standards.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Diagnose and repair various types of vehicles using specialty shop tools and diagnostic equipment in accordance with NATEF standards.
- Demonstrate shop safety practices when performing vehicle repairs in accordance with NATEF standards.
- Write vehicle repair estimates in accordance with NATEF standards.

AUTOMOTIVE AND RELATED TECHNOLOGY

Associate in Science Degree

Major Units: 36

Requirements for the Associate in Science degree in Automotive and Related Technology may be met by completing 36 units of Required Courses with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

Students who complete this degree will be able to perform jobs as a diagnostics, to troubleshoot and repair problems occurring in automotive anti-lock braking systems (ABS), electrical/electronic systems, engine performance, drivability, suspension and steering, automatic and manual transmissions, transaxles, engine repair, heating and air conditioning.

Students should take the 6 basic courses during Semester I and Semester II:

SEMESTER I & II		UNITS
AUTORTK 113	Drive Train Components Principles & Practices	3
AUTORTK 114	Steering, Suspension, Brakes, Principles & Practices	3
AUTORTK 121	Basic Engine Theory, Inspection & Repair	3
AUTORTK 122	Heating and Air Conditioning Systems Theory, Inspection & Rpr	3
AUTORTK 123	Fuel & Emissions Systems Theory, Inspection & Repair	3
AUTORTK 135	Computer Control and Fuel injection	3

SEMESTER III		UNITS
AUTORTK 100	Heating and Air Conditioning Systems Theory, Inspection Repair	3
AUTORTK 130	Automotive Theory and Repair I	3
AUTORTK 131	Automotive Theory and Repair II	3

SEMESTER IV		UNITS
AUTORTK 140	Automotive Theory and Repair IV	3
AUTORTK 141	Automotive Theory and Repair V	3
AUTORTK 142	Automotive Theory and Repair VI	3

NOTE: Students are required to provide basic hand tools, Transportation Technology uniform and personal safety equipment.

AUTOMOTIVE AND RELATED TECHNOLOGY

Certificate of Achievement

Major Units: 36

A Certificate of Achievement in Automotive and Related Technology may be earned by completing 36 units of Required Courses listed for the Associates degree in Automotive and Related Technology with a "C" or better in each course.

AUTOMOTIVE AND RELATED TECHNOLOGY: TUNE-UP

Certificate of Achievement
Major Units: 18

A Certificate of Achievement in Automotive and Related Technology: Tune-Up may be earned by completing 18 units of Required Courses with a "C" or better in each course.

REQUIRED COURSES		UNITS
AUTORTK 100	Heating and Air Conditioning Systems Theory, Inspection & RPR	3
AUTORTK 121	Basic Engine Theory Inspection and Repair	3
AUTORTK 122	Electrical/Electronic Systems Theory, Inspection & Repair	3
AUTORTK 123	Fuel & Emissions Systems Theory, Inspection & Repair	3
AUTORTK 131	Automotive Theory and Repair II	3
AUTORTK 135	Computer Control and Fuel Injection	3

AUTOMOTIVE AND RELATED TECHNOLOGY: TRANSMISSION REPAIR

Certificate of Achievement
Major Units: 18

A Certificate of Achievement in Automotive and Related Technology: Transmission Repair may be earned by completing 18 units of Required Courses with a "C" or better in each course.

REQUIRED COURSES		UNITS
AUTORTK 100	Heating and Air Conditioning Theory, Inspection, and Repair	3
AUTORTK 113	Drive Train Components Principles & Practices	3
AUTORTK 114	Steering, Suspension, Brakes, Principles & Practices	3
AUTORTK 121	Basic Engine Theory, Inspection & Repair	3
AUTORTK 122	Electrical/Electronic Systems,Theory, Inspection, and Repair	3
AUTORTK 123	Fuel & Emissions Systems Theory, Inspection & Repair	3



BAKING

Department: Culinary Arts/Professional Baking
Department Chair: Mr. Steve Kasmar, Room SA-118
(213) 763-7332, KasmarSL@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Baking Professional	A.A.	Plan B	48	-	48
Baking Professional	C		48	-	48

At least 60 degree applicable units (48 total major units and Plan B units) are required to earn an Associate degree.

For additional related degrees and certificates, refer to programs under Culinary Arts and Restaurant Management.

PROGRAM OVERVIEW

The Professional Baking program is accredited by the American Culinary Federation Educational Foundation (ACFEF). This two year program prepares students for successful careers within the hospitality community. Baking program students, under the direct supervision of their chef instructor, will discuss, prepare, and analyze various baked goods including quick breads, yeast breads, laminated dough, specialty and wedding cakes, cookies, batters, and restaurant-style plated desserts. Baking formulas, cost controls, ingredient identification and usage is practiced throughout the program. Students prepare baked goods on a daily basis for a retail bakery located on the LATTC campus, the college cafeteria and faculty dining room as well as catering for special events and holiday functions.

The Professional Baking program will prepare students for employment in areas of baking and pastry arts. Students will demonstrate the ability to prepare and formulate baking/pastry recipes, assess food costs and sales prices, and organize daily tasks for successful completion of baked goods. The National Restaurant Association Serve Safe Exam is administered during the first semester.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Recognize industry standards for entry, supervisory, and management level employment.
- Demonstrate professional baking techniques according to industry standards and competencies.
- Evaluate proper practices in various industry segments.

BAKING PROFESSIONAL

Associate in Arts Degree

Major Units: 48

Requirements for the Associate in Arts degree in Professional Baking may be met by completing 48 units of Required Courses with a grade of "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

REQUIRED COURSES

SEMESTER I		UNITS
CLN ART 111	Culinary Arts - Orientation I	4
CLN ART 112	Sanitation and Safety	2
CLN ART 170	Culinary Nutrition	2
PROFBAK 112	Baking Processes and Theory of Ingredients	4

SEMESTER II		UNITS
PROFBAK 121	Beginning Yeast Breads & Quickbreads	6
PROFBAK 122	Artesian Breads, Specialty Breads	6

SEMESTER III		UNITS
PROFBAK 131	Plated Restaurant Style Desserts	6
PROFBAK 132	Multi Component Desserts and Pastries	6

SEMESTER IV		UNITS
CLN ART 235	Menu Planning & Purchasing	4
CLN ART 240	Restaurant Supervision & Training	2
PROFBAK 141	Advanced Baking: Centerpieces and Decorating Techniques	6

NOTE: Most Baking/Culinary Arts courses have prerequisites and/or co-requisites. Refer to the Course Descriptions section of the catalog for additional details.

BAKING PROFESSIONAL

Certificate of Achievement

Major Units: 48

A Certificate of Achievement in Professional Baking may be earned by completing 48 units of Required Courses listed above for Associates degree in Baking Professional with a grade of "C" or better in each course.



BIOTECHNOLOGY (BIOMANUFACTURING)

Department: Sciences
Department Chair: Dr. Miguel Moreno, Room CH-405
(213) 763-7322, MorenoMA@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Biotechnology	A.S.	Plan B	33	27	60
Biotechnology	C		33	-	33

At least 60 degree applicable units (33 total major units and Plan B units) are required to earn an Associate degree.

A Certificate of Achievement in Biotechnology may be earned by completing 33 units of Required Courses with a "C" or better in each course.

PROGRAM OVERVIEW

The LATTC Biotechnology Certificate/AS Degree Program is designed to meet the needs of students who wish to acquire the necessary skills in a biotechnology career with an emphasis in biomanufacturing. This program also suits the needs of transfer students who wish to complete their first two years of education in a community college.

Biotechnology is a changing industry that applies science and technologies to living organisms through the process of discovering, developing, manufacturing, and regulating quality of new products. Biotechnology applies to agriculture, human health and medicine, energy and environment. Biotechnology workers are employed in many industries, including, pharmaceutical and medical manufacturing; instrument, equipment and supplies manufacturing; scientific and technical consulting services; scientific and research development services; education; laboratories and government.

Our Biotechnology AS Degree Program focuses on biomanufacturing which directly serves pharmaceutical and medical manufacturing, but also other sectors such as food and agricultural sciences, green technology, and various science-related industries.

The Biotechnology program prepares students to find employment as entry-level lab technicians in fields that may include:

- Biomanufacturing
- Biotechnology
- Environmental Sciences
- Food Science Technicians
- Pharmaceuticals

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the Degree/Certificate program, students are able to:

- Understand the science and process of biomanufacturing.
- Demonstrate an understanding of facilities and current good manufacturing practices.
- Demonstrate problem solving, analytical and critical thinking skills.

REQUIRED COURSES

SEMESTER I		UNITS
BIOLOGY 003	Introduction to Biology	4
CHEM 051	Fundamentals of Chemistry	5
- or Chem Tech 111	*Applied Chemistry*	*5*
SEMESTER II		**UNITS**
MICRO 020	General Microbiology	4
PRPLTEK 104	Introduction to Process Plant Safety	3
SEMESTER III		**UNITS**
BIOTECH 010	Introduction to Biomanufacturing I	4
PRPLTEK 103	Process Plant Equipment	3
SEMESTER IV		**UNITS**
BIOTECH 012	Introduction to Biomanufacturing II	4
PRPLTEK 102	Process Measure/Control Fundamentals	3
PRPLTEK 214	Regulations and Policies	3

MAJOR ELECTIVES

		UNITS
MATH 125	Intermediate Algebra	5
LABR ST 004	Emerging Issues	3
- or POL SC 001	*The Government of the United States*	*3*
PHILOS 001	Introduction to Philosophy	3
PHYSICS 011	Introductory Physics	4
ENGLISH 101	College Reading and Composition I	3
HEALTH 006	Nutrition for Healthful Living and Fitness Activities	3
- or HEALTH 002	*Health and Fitness*	*3*
SUPV 011	Oral Communications	3
BUS 033	Tech Report Writing	3

BIOTECHNOLOGY

Certificate of Achievement

Major Units: 33

A Certificate of Achievement in Biotechnology may be earned by completing 33 units of Required Courses with a "C" or better in each course.

† Course currently unavailable

CARPENTRY/BUILDING AND CONSTRUCTION TECHNOLOGIES

Department: Construction, Design, and Manufacturing
Department Chair: Mr. William (Bill) Elarton, Room SQ-122
(213) 763-3701, cdm@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Carpentry —(day only)	A.S.	Plan B	45	3	48
Carpentry —(day only)	C		45	3	48
Carpentry Construction Technologies —(evening only)	A.A.	Plan B	39	9	48
Carpentry Construction Technologies —(evening only)	C		39	9	48
At least 60 degree applicable units (48 total major units and Plan B units) are required to earn an Associate degree.					

PROGRAM OVERVIEW

To meet the training needs of persons interested in becoming a Carpenter, LATTC offers a Carpentry Associate in Science degree and a Carpentry Construction Technologies Associates in Arts degree as well as Certificates of Achievement.

The Associate in Science degree is designed for individuals seeking entry level positions in the field. Students enrolling in this program should be able to commit to full-time student status, which is approximately 24 hours per week. This time commitment is necessary to allow for hands-on training with the laboratory applications used during the course of instruction.

The Associate in Arts degree is an evening-only course of study designed for individuals currently in the field who want to improve their skills or learn new ones. Due to limitations on available evening hours, the utilization of hands-on laboratory application is assumed to be provided at the students' place of employment.

By fulfilling the program requirements, students will have the necessary knowledge and skills for a career as a Carpenter in the Construction or Maintenance arena. The construction, installation, and repair of structures and fixtures made from wood and other materials, working from blueprints, layout, measuring, marking, and arranging materials in accordance with local building codes, cutting and shaping wood, plastic, fiberglass, or drywall using hand and power tools, joining materials with nails, screws, staples, or adhesives are just some of the skills that will be mastered during this program.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Use hand and power tools to perform work within the building construction industry.
- Perform calculations and measurements required for work in the building construction industry.
- Gains skills to be employable in the construction industry.

CARPENTRY

Associate in Science Degree

Major Units: 48

Requirements for the Associate in Science degree in Carpentry may be met by completing 45 units of Required Courses and 3 units of Major Electives with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Use hand and power tools to perform work within the building construction industry.
- Perform calculations and measurements required for work in the building construction industry.
- Acquire skills necessary for employment in the building and construction Industry.

REQUIRED COURSES

SEMESTER I		UNITS
CRPNTRY 105	Calculations and Measurement for Woodworking Students I	3
CRPNTRY 114	Hand and Power Tools Application	4
CRPNTRY 115	Basic Blueprint Reading and Core Construction Skills	3
CRPNTRY 117	Construction Materials	2
SEMESTER II		**UNITS**
CRPNTRY 123	Basic House Construction	6
CRPNTRY 124	Blueprint Reading and Estimating I	3
CRPNTRY 129 †	Basic Residential Estimating	2
CRPNTRY 130	Calculations and Measurement for Woodworking Students II	3
SEMESTER III		**UNITS**
CRPNTRY 132	Applied Blueprint Reading	3
CRPNTRY 133	Advanced Residential Estimating	3
CRPNTRY 134	Advanced Residential Construction	4
CRPNTRY 135	Concrete Construction	2
SEMESTER IV		**UNITS**
CRPNTRY 144	Residential Exterior Finish	4
CRPNTRY 145	Residential Interior Finish	5

† Course currently unavailable

MAJOR ELECTIVES

Select at least 3 units from the courses below		UNITS
BLDGCTQ 007	Weatherization - Practical Energy Efficiency Techniques	3
BLDGCTQ 008	Weatherization - Energy Efficiency Practices	1
BLDGCTQ 009	Energy Auditor – Residential	3
BLDGCTQ 012	Energy Auditor – Residential Practices	1
BLDGCTQ 102	O.S.H.A. Based Safety Standards:Construction & Industry	2
BLDGCTQ 921	Cooperative Education-Building Construction Techniques	2
CBNTMKG 170 †	Introduction to the CNC Woodworking Center	3
CRPNTRY 111	Construction IA	3
CRPNTRY 126	Construction II	6
CRPNTRY 148	Computer Assisted Estimating I	3
CRPNTRY 149	Computer Assisted Estimating II	3
CRPNTRY 170	Introduction to CNC Woodworking Machining And Programming	3
CRPNTRY 243	Building Estimating I	3
CRPNTRY 247	Building Estimating II	3
CRPNTRY 941	Cooperative Education-Carpentry	4
ECONMT 100	(O.S.H.A.) Safety Standards: Construction and Industry	2

CARPENTRY

Certificate of Achievement

Major Units: 48

A Certificate of Achievement in Carpentry may be earned by completing 45 units of Required Courses and 3 units of Major Electives listed for the Associates degree in Carpentry with a "C" or better in each course.

CARPENTRY - CONSTRUCTION TECHNOLOGIES

Associate in Arts Degree

Major Units: 48

Requirements for the Associate in Arts degree in Carpentry Construction Technologies may be met by completing 39 units of Required Courses and 9 units of Major Electives with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

REQUIRED COURSES

LEVEL I		UNITS
CRPNTRY 105	Calculations and Measurements for Woodworking Students I	3
CRPNTRY 111A	Construction IA	3
CRPNTRY 126A †	Construction II	3

LEVEL II		UNITS
CRPNTRY 130	Calculations and Measurements for Woodworking Students II	3
CRPNTRY 148	Computer Assisted Estimating I	3
CRPNTRY 241	Blueprint Reading and Estimating	3
CRPNTRY 243	Building Estimating I	3

LEVEL III		UNITS
ECONMT 100	(O.S.H.A.) Safety Standards: Construction & Industry	2
CRPNTRY 149	Computer Assisted Estimating II	3
CRPNTRY 240	Building Construction Specialties	4
CRPNTRY 251	Building Codes I: International Residential Code (IRC)	3

LEVEL IV		UNITS
CRPNTRY 247	Building Estimating II	3
CRPNTRY 252	IVC Building Code II	3

MAJOR ELECTIVES

Select at least 9 units from the courses below		UNITS
BLDGCTQ 007	Weatherization - Practical Energy Efficiency Techniques	3
BLDGCTQ 008	Weatherization - Energy Efficiency Practices	1
BLDGCTQ 009	Energy Auditor – Residential	3
BLDGCTQ 012	Energy Auditor – Residential Practices	1
BLDGCTQ 101	Contract's License Law	3
BLDGCTQ 102	O.S.H.A. Based Safety Standards:Construction & Industry	2
BLDGCTQ 921	Cooperative Education-Building Construction Techniques	2
CRPNTRY 114	Hand and Power Tool Application	4
CRPNTRY 115	Basic Blueprint Reading and Core Construction Skills	3
CRPNTRY 117	Construction Materials	2

CARPENTRY - CONSTRUCTION TECHNOLOGIES

Certificate of Achievement

Major Units: 48

A Certificate of Achievement in Carpentry Construction Technologies may be earned by completing 39 units of Required Courses and 9 units of Major Electives listed under for the Associates degree in Carpentry Construction Technologies with a "C" or better in each course.

† Course currently unavailable

CHEMICAL TECHNOLOGY

Department: Sciences
Department Chair: Dr. Miguel A. Moreno, Room CH-405
(213) 763-7322, MorenoMA@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Chemical Technology	A.S.	Plan B	47	-	47
Chemical Technology	C		47	-	47
At least 60 degree applicable units (47 total major units and Plan B units) are required to earn an Associate degree.					

PROGRAM OVERVIEW

The Chemical Technician (CT) or science technician occupations are becoming the fastest growing occupational category in the United States. The chemical technician generally performs laboratory analysis or testing in a wide variety of biological and physical science settings such as; environmental, drinking water, wastewater treatment, pharmaceutical, cosmetics and petroleum refineries; grading studies of materials, and quality control of industrial chemicals. Training is provided in applied chemistry, physics and mathematics as well as instrumentation, biotechnology, industrial processes, computerized analysis and quality control. The CT program is also designed to help students prepare for a smooth transition into other science related BA/BS degree programs at LATTC.

At the conclusion of this program, students will have the skills necessary for:

- Working in the chemical process industry, including treatment plants
- Monitoring safety/health and environmental regulations
- Sampling and handling chemical materials
- Measuring physical properties
- Performing chemical analysis
- Performing instrumental analysis
- Planning, designing and conducting experiments, and
- Synthesizing compounds

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Demonstrate skills required to perform laboratory testing and chemical processes by performing quantitative and qualitative instrumental and wet chemical analysis.
- Demonstrate Good Laboratory Practice (GLP), Current Good Manufacturing Practices (cGMP) including environmental, health and safety
- Evaluate and apply knowledge of regulatory policies for laboratory quality control and validation

† Course currently unavailable

CHEMICAL TECHNOLOGY

Associate in Science Degree

Major Units: 47

Requirements for the Associate in Science degree in Chemical Technology may be met by completing 47 units of Required Courses with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/ Transfer Requirements.

REQUIRED COURSES

SEMESTER I		UNITS
CHEM T 111	Applied Chemistry I	5
CHEM T 113	Applied Chemistry Mathematics I	2
CHEM T 140	Microbiology Laboratory Techniques For Technicians	1
PHYSICS 011	Introductory Physics	4
SEMESTER II		**UNITS**
CHEM T 121	Applied Chemistry II	5
CHEM T 123	Applied Chemistry Mathematics II	2
PHYSICS 029 †	Basic Physics for Technicians	4
SEMESTER III		**UNITS**
CHEM T 132	Quantitative and Instrumental Analysis I	5
CHEM T 133	Organic Chemistry I	4
CHEM T 168	Chemical Quality Control I	2
SEMESTER IV		**UNITS**
CHEM T 131	Industrial Processes	3
CHEM T 141	Basic Employment Information	1
CHEM T 142	Quantitative and Instrumental Analysis II	5
CHEM T 143	Organic Chemistry II	4

CHEMICAL TECHNOLOGY

Certificate of Achievement

Major Units: 47

A Certificate of Achievement in Chemical Technology may be earned by completing 47 units of Required Courses with a "C" or better in each course.

CHEMISTRY

Department: **Sciences**
Department Chair: **Dr. Miguel A. Moreno, Room CH-405**
(213) 763-7322, MorenoMA@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Chemistry (Transfer)	A.S.	Plan B	38	-	38
At least 60 degree applicable units (38 total major units and Plan B units) are required to earn an Associate degree.					

PROGRAM OVERVIEW

The Associate of Science Degree in Chemistry provides students interested in the physical, health, and biological sciences with a strong academic background in chemistry and the coursework required to transfer to four year institutions or professional schools. This degree certifies a students' ability to analyze and solve problems in the field of chemistry and other fields where expertise in chemistry is required.

Chemistry related fields include the pharmaceutical sciences, food sciences, biotechnology, biomanufacturing, nanotechnology, environmental sciences, engineering and many others. Our students pursue careers in chemistry, pharmacy, medicine, dentistry, physician assistant, laboratory technician and other health or physical science related careers. The degree presents curriculum in two major concentrations; one in Chemistry and the other in Biochemistry. Thus students can select the concentration appropriate to their majors.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree** program, students are able to:

- Students will apply chemistry concepts to solve problems where chemistry knowledge is required.
- Characterize chemical compounds, perform precise, quantitative measurements using proper techniques and modern instrumentation.
- Demonstrate problem-solving, analytical, and critical thinking skills.

CHEMISTRY

Associate in Science Degree (Chemistry Concentration)

Major Units: 38

Requirements for the Associate in Science degree in Chemistry may be met by completing 38 units of Required Courses with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

Please note: All courses are taught each semester except for Physics 2 and 3.

REQUIRED COURSES

CHEM 101	General Chemistry I	5
CHEM 102	General Chemistry II	5
CHEM 211	Organic Chemistry I	5
-or- CHEM 211H	*Organic Chemistry I—Honors (5)*	
CHEM 212	Organic Chemistry for Science Majors II	5
MATH 265	Calculus with analytical geometry I	5
MATH 266	Calculus with analytical geometry II	5
PHYSICS 001	Mechanics of Solids	4
PHYSICS 002	Mechanics of Fluids, Heat and Sound	4
-or- PHYSICS 003	*Electricity and Magnetism (4)*	

BIOCHEMISTRY CONCENTRATION

CHEM 101	General Chemistry I	5
CHEM 102	General Chemistry II	5
CHEM 211	Organic Chemistry I	5
-or- CHEM 211H	*Organic Chemistry I—Honors (5)*	
CHEM 221	Biochemistry	5
-or- CHEM 221H	*Biochemistry—Honors (5)*	
MATH 265	Calculus with analytical geometry I	5
MATH 266	Calculus with analytical geometry II	5
PHYSICS 006	General Physics I	4
PHYSICS 007	General Physics II	4

NOTE: Required Courses are sequential and contain pre-requisites. All courses are taught each semester with the exception of Physics 6 and Physics 7.

TRANSFER: Students interested in transferring to a four-year college or university should visit the University Transfer Center or meet with a counselor to select appropriate transferable courses.

CHILD DEVELOPMENT

Department: Behavioral/Social Sciences/Child Development
Department Chair: Dr. Freddie McClain, Room AH-516
(213) 763-3936, McclaiF@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Child Development: Plan A (Transfer)	A.A.	Plan A	28	3	31
Child Development: Plan B	A.A.	Plan B	38	9	47
Early Childhood Education (Transfer)	AST	UC/ CSU/ IGETC	25	-	25
Infant/Toddler Teacher	C		27	-	27
Preschool Associate Teacher	C		15	-	15
Preschool Teacher	C		35	-	35
School Age Program Teacher	C		33	-	33
Site Supervisor	C		43	-	43
Teacher with Special Needs	C		30	-	30

PROGRAM OVERVIEW

The LATTC Child Development Program is designed to meet the needs of those students who wish to prepare themselves for employment or who are currently employed in the Early Childhood Education (ECE) or Elementary Education field. This curriculum prepares student to teach in programs for children including: private facilities, parent cooperative, Head Start programs, Children's Centers and infant/toddler or school age programs. In addition, this program also prepares students to transfer to four year universities in either Child Development or Teacher Education majors.

Completion of each program leads to a certificate, transfer option and/or an Associate in Arts degree. With additional general education units and required experience, students will be eligible for the Child Development Permit as defined under Title 5. Meeting this requirement will enable the student to teach in both Federal and State preschool programs.

The Child Development courses provide training in infant and toddler care; working with school age children; supervising and administering childcare programs, as well as working with special needs children. Students who complete this degree program will be proficient in the methodology of working with young children through the extensive overview of theories and application of child development, the development of curriculum and lesson planning techniques, ways to observe and record child behavior, and classroom management techniques.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree** Plan A/B program, students are able to:

- Successfully manage an Early Childhood Education (ECE) classroom; and provide children with responsive care, developmentally appropriate and anti-bias curriculum, and a healthy and safe environment.
- Operate a high-quality ECE program that complies with licensing and title V regulations.
- Demonstrate professionalism while working with children, parents, staff, and community.

PLANNING AHEAD:

MANTOUX TEST: Some Child Development courses may require you to obtain a Mantoux test for Tuberculosis. The college Health Center provides this service. Please call ahead for days and times the Health Center provides this service.

CRIMINAL CLEARANCE: In order to fulfill State licensing requirements for employment in private and public programs you must receive a Criminal Clearance to work with young children. Consult with faculty for additional information.

CPR CLASS: Your employer may require you to take a 15-hour Cardiopulmonary Resuscitation class. This class covers training on basic first aid for infants and children, CPR techniques as well as information on basic health and sanitation procedures.

CHILD DEVELOPMENT: PLAN A

Associate in Arts Degree

Major Units: 31

The LATTC Child Development Program is designed to meet the needs of those students who wish to prepare themselves for employment or who are currently employed in the Early Childhood Education (ECE) or Elementary Education field. This curriculum prepares student to teach in programs for children including: private facilities, parent cooperative, Head Start programs, Children's Centers and infant/toddler or school age programs. In addition, this program also prepares students to transfer to four year universities in either Child Development or Teacher Education majors.

Completion of each program leads to a certificate, transfer option and/or an Associate in Arts degree. With additional general education units and required experience, students will be eligible for the Child Development Permit as defined under Title 5. Meeting this requirement will enable the student to teach in both Federal and State preschool programs. The Child Development courses provide training in infant and toddler care; working with school age children; supervising and administering childcare programs, as well as working with special needs children. Students who complete this degree program will be proficient in the methodology of working with young children through the extensive overview of theories and application of child development, the development of curriculum and lesson planning techniques, ways to observe and record child behavior, and classroom management techniques.

REQUIRED COURSES

SEMESTER I		UNITS
CH DEV 001	Child Growth and Development	3
CH DEV 010	Health, Safety & Nutrition	3
CH DEV 011	Child, Family and Community	3

SEMESTER II		UNITS
CH DEV 002	Early Childhood: Principles and Practices	3
CH DEV 034	Observing and Recording Children's Behavior	3
CH DEV 042	Teaching in a Diverse Society	3

SEMESTER III		UNITS
CH DEV 007	Introduction to Curriculum in Early Childhood Education	3

SEMESTER IV		UNITS
CH DEV 008	Curriculum in Early Childhood Education	3

SEMESTER V		UNITS
CH DEV 022	Practicum in Child Development I	4

MAJOR ELECTIVES

Select at least 3 units from the courses below		UNITS
CH DEV 030	Infant and Toddler Studies I	3
CH DEV 038	Administration & Supervision of Early Childhood Programs I	3
CH DEV 044	Early Intervention for Children with Special Needs	3
CH DEV 045	Programs for Children with Special Needs	3
CH DEV 046	School Age Programs I	3
CH DEV 057	Children Ethnic Identity Development & Awareness	3
EDUC 001	Introduction to Teaching	3
SOC 028	The Family: A Sociological Approach	3

NOTE: Most Child Development courses have prerequisites and/or co-requisites except for Child Development 001, 010 and 011. Refer to the Course Descriptions section of the catalog for additional details.

TRANSFER—Students interested in transferring to a four-year college or university should visit the University Transfer Center or meet with a counselor to select appropriate transferable courses.

CHILD DEVELOPMENT: PLAN B

Associate in Arts Degree

Major Units: 47

The LATTC Child Development Program is designed to meet the needs of those students who wish to prepare themselves for employment or who are currently employed in the Early Childhood Education (ECE) or Elementary Education field. This curriculum prepares student to teach in programs for children including: private facilities, parent cooperative, Head Start programs, Children's Centers and infant/toddler or school age programs. In addition, this program also prepares students to transfer to four year universities in either Child Development or Teacher Education majors.

Completion of each program leads to a certificate, transfer option and/or an Associate in Arts degree. With additional general education units and required experience, students will be eligible for the Child Development Permit as defined under Title 5. Meeting this requirement will enable the student to teach in both Federal and State preschool programs.

The Child Development courses provide training in infant and toddler care; working with school age children; supervising and administering childcare programs, as well as working with special needs children. Students who complete this degree program will be proficient in the methodology of working with young children through the extensive overview of theories and application of child development, the development of curriculum and lesson planning techniques, ways to observe and record child behavior, and classroom management techniques

Requirements for the Associate in Arts degree in Child Development may be met by completing 38 units of Required Courses and 9 units of Major Electives with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

REQUIRED COURSES

SEMESTER I		UNITS
CH DEV 001	Child Growth and Development	3
CH DEV 010	Health, Safety & Nutrition	3
CH DEV 011	Child, Family and Community	3

SEMESTER II		UNITS
CH DEV 002	Early Childhood: Principles and Practices	3
CH DEV 034	Observing and Recording Children's Behavior	3
CH DEV 042	Teaching in a Diverse Society	3

SEMESTER III		UNITS
CH DEV 007	Introduction to Curriculum in Early Childhood Education	3
CH DEV 045	Programs for Children with Special Needs	3

SEMESTER IV		UNITS
CH DEV 008	Curriculum in Early Childhood Education	3
CH DEV 038	Administration & Supervision of Early Childhood Programs I	3

SEMESTER V		UNITS
CH DEV 022	Practicum in Child Development I	4

SEMESTER VI		UNITS
CH DEV 023	Practicum in Child Development II	4

MAJOR ELECTIVES

Select at least 9 units from the courses below		UNITS
CH DEV 030	Infant and Toddler Studies I	3
CH DEV 031	Infant and Toddler Studies II	3
CH DEV 039	Administration & Supervision of Early Childhood Programs II	3
CH DEV 044	Early Intervention for Children with Special Needs	3
CH DEV 046	School Age Programs I	3
CH DEV 047	School Age Programs II	3
SOC 028	The Family: A Sociological Approach	3

NOTE: Most Child Development courses have prerequisites and/or co-requisites except for Child Development 001, 010 and 011. Refer to the Course Descriptions section of the catalog for additional details.

EARLY CHILDHOOD EDUCATION

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Early Childhood Education (Transfer)	AST	CSU GE/ IGETC	25	-	25

PROGRAM OVERVIEW

The Associate in Science degree in Early Childhood Education for Transfer (AS-T) prepares students with the academic coursework necessary for a variety of child development permits issued by the State of California for students who wish to work while completing their education. Early Childhood Education introduces the theories of child development and principles of education focusing on children ages 0□5 years. The AS-T in Early Childhood Education for Transfer degree is intended for students who plan to complete a baccalaureate degree in a similar program or major at a California State University campus. Students who complete this degree will gain priority admission to the CSU system, but not to a particular campus or major.

The Associate in Science in Early Childhood Education for Transfer (AS-T) degree will be awarded upon completion of the following

- Completion of 60 transferable semester units to the California State University
- Obtainment of a minimum grade point average of 2.0 in all transferable coursework.
- Full completion of one the following General education patterns
  - The Intersegmental General Education Transfer Curriculum (IGETC), with "C"s or better in all coursework AND completion of Area 1C Oral communication (CSU admission requirement)
  - California State University General Education – Breadth Requirements (CSU GE). Areas A1, A2, A3, & B4 must be completed with a grade of "C" or better (CSU admission requirement)
- A minimum of 24 semester units required for the major
- All courses in the major must be completed with a grade of "C" or better or a "P" if the course is taken on a "Pass-No Pass" basis (Title 5 § 55063).

NOTE: Up to 6 units may be completed outside of LATTC. However those courses must be C-ID approved for the major on that campus. Check with a counselor or www.ASSIST.org

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree** program, students are able to:

- Successfully manage an Early Childhood Education (ECE) classroom; and provide children with responsive care, developmentally appropriate and anti-bias curriculum, and a healthy and safe environment.
- Operate a high-quality ECE program that complies with licensing and title V regulations.
- Demonstrate professionalism while working with children, parents, staff, and community.

EARLY CHILDHOOD EDUCATION: TRANSFER DEGREE

Associate in Science Transfer Degree

Major Units: 25

Requirements for the Associate in Science Transfer degree in Early Childhood Education may be met by completing 25 units of Required Courses with a "C" or better along with general education courses meeting IGETC and CSU Requirements.

REQUIRED COURSES

SEMESTER I		UNITS
CH DEV 001	Child Growth and Development	3
CH DEV 010	Health, Safety & Nutrition	3
CH DEV 011	Child, Family and Community	3

SEMESTER II		UNITS
CH DEV 002	Early Childhood: Principles and Practices	3
CH DEV 034	Observing and Recording Children's Behavior	3
CH DEV 042	Teaching in a Diverse Society	3

SEMESTER III		UNITS
CH DEV 007	Introduction to Curriculum in Early Childhood Education	3
CH DEV 022	Practicum in Child Development I	4

MAJOR REQUIRED SUBTOTAL	24 units
CSU or IGETC for CSU GE Pattern	37-39 units
CSU Transferable Elective units	(as needed to reach 60 units)
TOTAL CSU transferrable units	60 units

NOTE: Most Child Development courses have prerequisites and/or co-requisites except for Child Development 001, 010 and 011. Refer to the Course Descriptions section of the catalog for additional details.

TRANSFER—Students interested in transferring to a four-year college or university should visit the University Transfer Center or meet with a counselor to select appropriate transferable courses.

INFANT/TODDLER TEACHER

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Infant/Toddler Teacher	C		27	-	27

PROGRAM OVERVIEW

The LATTC Infant/Toddler Teacher certificate program provides the student with a career preparation for working with young children age 0 to 2. In addition to basic course requirements, this certificate enables students to acquire a specialty in the area of infants/toddlers. With additional general education units and the required experience, students are eligible for the Child Development Teacher Permit as defined under Title 5. Meeting this requirement will enable the students to work with young children ages 2 – 5 in both Federal and state programs.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the Certificate program, students are able to:

- Student will be able to demonstrate knowledge in working with infants/toddlers.

INFANT / TODDLER TEACHER

Certificate of Achievement

Major Units: 27

A Certificate of Achievement in Infant/Toddler Teacher may be earned by completing 27 units of Required Courses with a "C" or better in each course.

REQUIRED COURSES

SEMESTER I		UNITS
CH DEV 001	Child Growth and Development	3
CH DEV 010	Health, Safety & Nutrition	3
CH DEV 011	Child, Family and Community	3
SEMESTER II		**UNITS**
CH DEV 002	Early Childhood: Principles and Practices	3
CH DEV 030	Infant and Toddler Studies I	3
CH DEV 042	Teaching in a Diverse Society	3
SEMESTER III		**UNITS**
CH DEV 031	Infant and Toddler Studies II	3
CH DEV 034	Observing and Recording Children's Behavior	3
CH DEV 044	Early Intervention for Children with Special Needs	3

NOTE: Most Child Development courses have prerequisites and/or co-requisites except for Child Development 001, 010 and 011. Refer to the Course Descriptions section of the catalog for additional details.

PRESCHOOL TEACHER

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Preschool Associate Teacher	C		15	-	15
Preschool Teacher	C		35	-	35

PROGRAM OVERVIEW

The Child Development Program offers various educational options. Completion of each program leads to a certificate, transfer option and/or an Associate in Arts degree. With additional general education units and required experience, the student will be eligible for the Child Development Permit as defined under Title 5. Meeting this requirement will enable the student to teach in both Federal and State preschool programs.

The Child Development courses provide training in infant and toddler care; working with school age children; supervising and administering childcare programs, as well as working with special needs children. Students who complete this degree program will be proficient in the methodology of working with young children through the extensive overview of theories and application of child development, the development of curriculum and lesson planning techniques, ways to observe and record child behavior, and classroom management techniques. This curriculum prepares student to teach in programs for children including: private facilities, parent cooperative, Head Start programs, Children's Centers and infant/toddler or school age programs. In addition, this program also prepares students to transfer to four year universities in either Child Development or Teacher Education majors.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the Certificate program, students are able to:

- Students completing this certificate will be able to compose and construct a developmentally appropriate lesson plan in either math or science subject area.

PRESCHOOL ASSOCIATE TEACHER

Certificate of Achievement

Major Units: 15

A Certificate of Achievement in Preschool Associate Teacher may be earned by completing 15 units of Required Courses listed above, with a "C" or better in each course.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

- Student will be able to demonstrate knowledge in composing and constructing a developmentally appropriate lesson.

REQUIRED COURSES

SEMESTER I		UNITS
CH DEV 001	Child Growth and Development	3
CH DEV 011	Child, Family and Community	3

SEMESTER II		UNITS
CH DEV 002	Early Childhood: Principles and Practices	3
CH DEV 034	Observing and Recording Children's Behavior	3

SEMESTER III		UNITS
CH DEV 007*	Introduction to Curriculum in Early Childhood Education	3

***CD 007 may be offered during winter/summer intersessions**

NOTE: Most Child Development courses have prerequisites and/or co-requisites except for Child Development 001, 010 and 011. Refer to the Course Descriptions section of the catalog for additional details.

PRESCHOOL TEACHER

Certificate of Achievement

Major Units: 35

A Certificate of Achievement in Preschool Teacher may be earned by completing 35 units of Required Courses with a "C" or better in each course.

The Child Development Program offers various educational options. Completion of each program leads to a certificate, transfer option and/or an Associate in Arts degree. With additional general education units and required experience, the student will be eligible for the Child Development Permit as defined under Title 5. Meeting this requirement will enable the student to teach in both Federal and State preschool programs.

The Child Development courses provide training in infant and toddler care; working with school age children; supervising and administering childcare programs, as well as working with special needs children. Students who complete this degree program will be proficient in the methodology of working with young children through the extensive overview of theories and application of child development, the development of curriculum and lesson planning techniques, ways to observe and record child behavior, and classroom management techniques. This curriculum prepares student to teach in programs for children including: private facilities, parent cooperative, Head Start programs, Children's Centers and infant/toddler or school age programs. In addition, this program also prepares students to transfer to four year universities in either Child Development or Teacher Education majors

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

- Successfully manage an Early Childhood Education (ECE) classroom and provide children with responsive care, developmentally appropriate and anti-bias curriculum, and healthy and safe environment.
- Operate a high-quality ECE program that complies with licensing and Title V regulations.
- Demonstrate professionalism while working with children, parents, staff, and community.

REQUIRED COURSES

SEMESTER I		UNITS
CH DEV 001	Child Growth and Development	3
CH DEV 010	Health, Safety & Nutrition	3
CH DEV 011	Child, Family and Community	3

SEMESTER II		UNITS
CH DEV 002	Early Childhood: Principles and Practices	3
CH DEV 034	Observing and Recording Children's Behavior	3
CH DEV 042	Teaching in a Diverse Society	3

SEMESTER III		UNITS
CH DEV 007	Introduction to Curriculum in Early Childhood Education	3
CH DEV 045	Programs for Children with Special Needs	3

SEMESTER IV		UNITS
CH DEV 008	Curriculum in Early Childhood Education	3

SEMESTER V		UNITS
CH DEV 022	Practicum in Child Development I	4

SEMESTER VI		UNITS
CH DEV 023	Practicum in Child Development II	4

NOTE: Most Child Development courses have prerequisites and/or co-requisites except for Child Development 001, 010 and 011. Refer to the Course Descriptions section of the catalog for additional details. Certain courses could be offered during the winter/spring intersessions General Education courses must be taken to meet state requirements for obtaining a permit.

SCHOOL AGE PROGRAM TEACHER

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
School Age Program Teacher	C		33	-	33

PROGRAM OVERVIEW

The Child Development Program offers various educational options. Completion of each program leads to a certificate, transfer option and/or an Associate in Arts degree. With additional general education units and required experience, the student will be eligible for the Child Development Permit as defined under Title 5. Meeting this requirement will enable the student to teach in both Federal and State preschool programs.

The Child Development courses provide training in infant and toddler care; working with school age children; supervising and administering childcare programs, as well as working with special needs children. Students who complete this degree program will be proficient in the methodology of working with young children through the extensive overview of theories and application of child development, the development of curriculum and lesson planning techniques, ways to observe and record child behavior, and classroom management techniques. This curriculum prepares student to teach in programs for children including: private facilities, parent cooperative, Head Start programs, Children's Centers and infant/toddler or school age programs. In addition, this program also prepares students to transfer to four year universities in either Child Development or Teacher Education majors.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the Certificate program, students are able to:

- Students completing this certificate will be able to design and plan 5 different after school activities in the areas of science, math, art, language arts, and social studies.

SCHOOL AGE PROGRAM TEACHER

Certificate of Achievement

Major Units: 33

A Certificate of Achievement in School Age Program Teacher may be earned by completing 33 units of Required Courses with "C" or better in each course.

REQUIRED COURSES

SEMESTER I		UNITS
CH DEV 001	Child Growth and Development	3
CH DEV 010	Health, Safety & Nutrition	3
CH DEV 011	Child, Family and Community	3
SEMESTER II		**UNITS**
CH DEV 002	Early Childhood: Principles and Practices	3
CH DEV 034	Observing and Recording Children's Behavior	3
CH DEV 042	Teaching in a Diverse Society	3
CH DEV 046	School Age Programs I	3
SEMESTER III		**UNITS**
CH DEV 007	Introduction to Curriculum in Early Childhood Education	3
CH DEV 045	Programs for Children with Special Needs	3
SEMESTER IV		**UNITS**
CH DEV 008	Curriculum in Early Childhood Education	3
CH DEV 047	School Age Programs II	3

NOTE: Most Child Development courses have prerequisites and/or co-requisites except for Child Development 001, 010 and 011. Refer to the Course Descriptions section of the catalog for additional details. CH DEV 001, 002, 007, 034 may be offered during a winter/summer intersessions

SITE SUPERVISOR

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Site Supervisor	C		43	-	43

PROGRAM OVERVIEW

The Child Development Program offers various educational options. Completion of each program leads to a certificate, transfer option and/or an Associate in Arts degree. With additional general education units and required experience, the student will be eligible for the Child Development Permit as defined under Title 5. Meeting this requirement will enable the student to teach in both Federal and State preschool programs.

The Child Development courses provide training in infant and toddler care; working with school age children; supervising and administering childcare programs, as well as working with special needs children. Students who complete this degree program will be proficient in the methodology of working with young children through the extensive overview of theories and application of child development, the development of curriculum and lesson planning

† Course currently unavailable

techniques, ways to observe and record child behavior, and classroom management techniques. This curriculum prepares student to teach in programs for children including: private facilities, parent cooperative, Head Start programs, Children's Centers and infant/toddler or school age programs. In addition, this program also prepares students to transfer to four year universities in either Child Development or Teacher Education majors.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the Certificate program, students are able to:

- Student will be able to demonstrate knowledge in implementing licensing code for Title 22 and education code for Title V.
- Student will be able to demonstrate knowledge in working with school age children.

SITE SUPERVISOR

Certificate of Achievement

Major Units: 43

A Certificate of Achievement in Site Supervisor may be earned by completing 43 units of Required Courses listed, with "C" or better in each course

REQUIRED COURSES

SEMESTER I		UNITS
CH DEV 001	Child Growth and Development	3
CH DEV 010	Health, Safety & Nutrition	3
CH DEV 011	Child, Family and Community	3
SEMESTER II		**UNITS**
CH DEV 002	Early Childhood: Principles and Practices	3
CH DEV 034	Observing and Recording Children's Behavior	3
CH DEV 042	Teaching in a Diverse Society	3
SEMESTER III		**UNITS**
CH DEV 007	Introduction to Curriculum in Early Childhood Education	3
CH DEV 038	Administration and Supervision of Early Childhood Programs I	3
CH DEV 045	Programs for Children with Special Needs	3
SEMESTER IV		**UNITS**
CH DEV 008	Curriculum in Early Childhood Education	3
CH DEV 039	Administration & Supervision of Early Childhood Programs II	3
CH DEV 065	Adult Supervision/Early Childhood Mentoring	2
SEMESTER V		**UNITS**
CH DEV 022	Practicum in Child Development I	4
SEMESTER VI		**UNITS**
CH DEV 023	Practicum in Child Development II	4

NOTE: Most Child Development courses have prerequisites and/or co-requisites except for Child Development 001, 010 and 011. Refer to the Course Descriptions section of the catalog for additional details.

TEACHER WITH SPECIAL NEEDS

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Teacher with Special Needs	C		30	-	30

PROGRAM OVERVIEW

The Child Development Program offers various educational options. Completion of each program leads to a certificate, transfer option and/or an Associate in Arts degree. With additional general education units and required experience, the student will be eligible for the Child Development Permit as defined under Title 5. Meeting this requirement will enable the student to teach in both Federal and State preschool programs.

The Child Development courses provide training in infant and toddler care; working with school age children; supervising and administering childcare programs, as well as working with special needs children. Students who complete this degree program will be proficient in the methodology of working with young children through the extensive overview of theories and application of child development, the development of curriculum and lesson planning techniques, ways to observe and record child behavior, and classroom management techniques. This curriculum prepares student to teach in programs for children including: private facilities, parent cooperative, Head Start programs, Children's Centers and infant/toddler or school age programs. In addition, this program also prepares students to transfer to four year universities in either Child Development or Teacher Education majors.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the Certificate program, students are able to:

- Student will be able to demonstrate knowledge in working with children with special needs.

TEACHER WITH SPECIAL NEEDS

Certificate of Achievement

Major Units: 30

A Certificate of Achievement in Teacher with Special Needs may be earned by completing 30 units of Required Courses, with a "C" or better in each course.

REQUIRED COURSES

SEMESTER I		UNITS
CH DEV 001	Child Growth and Development	3
CH DEV 010	Health, Safety & Nutrition	3
CH DEV 011	Child, Family and Community	3

SEMESTER II		UNITS
CH DEV 002	Early Childhood: Principles and Practices	3
CH DEV 030	Infant and Toddler Studies I	3
CH DEV 034	Observing and Recording Children's Behavior	3

SEMESTER III		UNITS
CH DEV 042	Teaching in a Diverse Society	3
CH DEV 044	Early Intervention for Children with Special Needs	3

SEMESTER IV		UNITS
CH DEV 008	Curriculum in Early Childhood Education	3
CH DEV 031	Infant and Toddler Studies II	3
CH DEV 045	Programs for Children with Special Needs	3

NOTE: Most Child Development courses have prerequisites and/or co-requisites except for Child Development 001, 010 and 011. Refer to the Course Descriptions section of the catalog for additional details.

COMMUNITY PLANNING & ECONOMIC DEVELOPMENT

Department: **Labor Center**
Department Chair: **Mr. John McDowell, Room MA-005**
(213) 763-7130, McDoweJR@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Community Planning and Economic Development	C		21	-	21

PROGRAM OVERVIEW

The Community Planning program at LATTC is the only program offered at an accredited community college in the United States. Our unique program provides students the knowledge and training needed for successful employment in the field of community and economic development. The community and economic development industry focuses on revitalizing low and moderate income communities. Rebuilding the economic, physical and social infrastructure of urban communities represents a new, growing and exciting career opportunity. Students can learn basic planning knowledge, development strategies, technical skills and networks needed to enter the industry, earning a Certificate of Achievement

The Community Planning curriculum and courses are regularly reviewed to ensure that they are relevant, industry appropriate and cutting edge. Industry experts (academic and practitioners) develop, design and teach our courses. Our industry partnerships provide critical resources for our students, providing them with invaluable employment, volunteer, internship and networking opportunities. Our courses are structured to be laboratories (classroom and field work) that combine lecture, project driven learning and hands on application of knowledge to contemporary issues affecting communities. Community planning courses are taught during the evening/weekends on campus and in the community to provide students with the greatest range of educational opportunities.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

- Students will analyze and assess community issues based on the field of Community Planning & Economic Development.
- Students will develop a work plan consisting of goals, objectives, and timelines that engage community stakeholders.

Successful students will be able to apply a community organizing set of skills and tools that can address multiple community and economic development issues. Students who complete the program become viable and competitive for employment opportunities because they will have developed their knowledge and skill base, practiced their learning through field work, internships or paid experience and have created networks and/or participated in collaborations that have maximized their knowledge with capacity to understand urgent issues and trends.

COMMUNITY PLANNING & ECONOMIC DEVELOPMENT

Certificate of Achievement

Major Units: 21

A Certificate of Achievement in Community Planning and Economic Development may be earned by completing 21 units of Required Courses with a "C" or better in each course.

REQUIRED COURSES

SELECT 18 UNITS FROM

—DEVELOPMENT		UNITS
COMPLAN 001	Introduction to Community Economic Development	3
COMPLAN 002	Introduction to Community Organizing	3
COMPLAN 003	Introduction to Affordable Housing Development	3
COMPLAN 004 †	School Based Community Development Approaches	3
COMPLAN 006	Managing Non-Profit and Public Organizations	3
COMPLAN 007	Contemporary Issues and Strategies in Popular Education and Organizing	3
COMPLAN 009	Commercial Real Estate Development	3
COMPLAN 010	Comprehensive Community Violence Prevention	3
COMPLAN 011	Professional Development Skills/Issues in Community Development	3
COMPLAN 032	Community Building Principles and Strategies	1
COMPLAN 033	Community Engagement Principles and Strategies	1
COMPLAN 035	Health Leadership and Community Development	3
COMPLAN 036	Introduction to Community Based Research and Organizing Methods	3

SELECT 3 UNITS FROM

—PROFESSIONAL DEVELOPMENT		UNITS
CAOT 082	Microcomputer Software Survey in the Office	3
CO INFO 701	Introduction to Computers and Their Uses	3
BUS 005	Business Law I	3
BUS 033	Technical Report Writing	3
-or- ENGLISH 028	*Intermediate Reading and Comp (3)*	
-or- ENGLISH 101	*College Reading and Composition I (3)*	

† Course currently unavailable

COMPUTER APPLICATIONS & OFFICE TECHNOLOGIES

Department: Academic Connections
Department Chair: Ms. Christina Anketell, Room MA-109e
(213) 763-3741, AnketeCP@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
CAOT: Administrative Assistant	A.A.	Plan B	31	12	43
CAOT: Administrative Assistant	C		22	9	31
CAOT: Information Processing Specialist	A.A.	Plan B	41	3	44
CAOT: Information Processing Specialist	C		33	-	33
CAOT: Office Assistant-Clerical	A.A.	Plan B	32	10	42
CAOT: Office Assistant-Clerical	C		34	-	34
CAOT: Medical Office Assistant	C		32	-	32
At least 60 degree applicable units (total major units and Plan B units) are required to earn an Associate degree.					

CAOT MAJOR ELECTIVES

The following list of electives are applicable towards CAOT degrees and certificates of achievements.

The following courses may be used as electives provided that the course is NOT a requirement in the major.

		UNITS
BUS 001	Introduction to Business	3
BUS 005	Business Law I	3
BUS 040	Business Project Management	3
CAOT 007	Machine Transcription	3
CAOT 085	Microcomputer Office Applications: Spreadsheet	3
CAOT 086	Microcomputer Office Applications: Database	3
CAOT 088	Microcomputer Office Applications: Desktop Publishing	3
CAOT 098	Microcomputer Office Applications: Discovering Computers: Digital Literacy	3

		UNITS
CAOT 101	Hands-on-Internet	1
OFF MCH 002	Adding and Calculating Machines	1
SUPV 001	Elements of Supervision	3
SUPV 011	Oral Communications	3

NOTE: Completion of English 021 with a grade of "C" or better prior to enrollment is recommended for success in the classes.

PROGRAM OVERVIEW

The Computer Applications and Office Technologies (CAOT) degree and certificate programs are designed to provide students with administrative and clerical skills required for employment in a variety of areas, such as business and industry, government agencies, schools, and hospitals. Office workers use a variety of computer software applications, produce correspondence, maintain databases, organize meetings, manage records and projects, and schedule appointments. The degree and certificate options include courses that are integral to many different administrative fields, and most include specific technical skills, relevant computer applications, and the necessary training in communicating, problem solving, and decision-making required for a variety of administrative and clerical entry-level positions as well as promotion and career advancement opportunities. The course content is designed to meet the varying needs of a wide spectrum of students, including those seeking:

- Associate in Arts degree(s)
- Certificate(s) that are specific to a discipline or area
- Entry into the job market
- Advanced training and/or retraining
- Lifelong learning

By fulfilling the program requirements, students are prepared for entry-level positions, promotion, and career advancement in a variety of office occupations. They will be adept at analyzing business situations and using critical thinking skills to apply technological solutions in an office environment. The student will be proficient in the use of current software application programs such as Microsoft Word, Excel, PowerPoint, Access, and Internet-related skills and techniques. Typical positions: Administrative Assistant, Office Assistant, Medical Office Assistant, Information Processing, and a variety of data entry/office/clerical occupations.

Instruction in this program focuses on four specialty areas: (1) Administrative Assistant (2) Information Processing (3) Medical Office Assistant (4) Office Assistant – Clerical.

COMPUTER APPLICATIONS & OFFICE TECHNOLOGIES: ADMINISTRATIVE ASSISTANT

Associate in Arts Degree

Major Units: 43

The Computer Applications and Office Technologies (CAOT) degree and certificate programs are designed to provide students with administrative and clerical competency skills required for employment in a variety of areas, such as business and industry, government agencies, schools, and hospitals. The degree and certificate options are designed to meet the varying needs of a wide spectrum of students, including those seeking:

- Associate in Arts degree(s)
- Certificate(s) that are specific to a discipline or area
- Entry into the job market
- Advanced training and/or retraining
- Lifelong learning

By fulfilling the program requirements, students are prepared for entry level positions, promotion, and career advancement in a variety of office occupations. Students will be proficient in the use of software application programs such as Microsoft Word, Excel, PowerPoint, Access, and Internet research.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Successfully use the computer to process, organize and present data and information in basic business format with no errors.
- Communicate effectively via spoken word, print and media, and work collaboratively with others in an office setting.
- Provide high level administrative support and performs administrative duties for private, public, and other governmental organizations.
- Manage and coordinate senior executives daily schedules to include travel arrangements, scheduling of board conference calls, meeting both internal and external job related duties.
- Schedule president's meetings, travel arrangements, appointments and calendar. Maintain presidents electronic filing system.
- Responsible for event scheduling and calendar oversight.

REQUIRED COURSES

The following suggested sequence of Required Courses can be taken in any order provided prerequisites are met.

SEMESTER I		UNITS
CAOT 002	Computer Keyboarding and Document Applications II	3
CAOT 033	Records Management and Filing	2
CAOT 034	Business Terminology	2
CAOT 082	Microcomputer Software Survey in the Office	3

SEMESTER II		UNITS
CAOT 031	Business English	3
CAOT 084	Microcomputer Office Applications: Word Processing	3

SEMESTER III		UNITS
BUS 032	Business Communications	3
BUS 038	Business Computations	3

SEMESTER IV		UNITS
CAOT 007	Machine Transcription	3
CAOT 030	Office Procedures	3
CAOT 098	Microcomputer Office Applications: Discovering Computers: Digital Literacy	3

MAJOR ELECTIVE

Twelve (12) units must be completed from the CAOT Major Electives located before the Program Overview section of this discipline.

COMPUTER APPLICATIONS & OFFICE TECHNOLOGIES: ADMINISTRATIVE ASSISTANT

Certificate of Achievement

Major Units: 31

REQUIRED COURSES

SEMESTER I		UNITS
CAOT 002	Computer Keyboarding and Document Applications II	3
CAOT 033	Records Management and Filing	2
CAOT 034	Business Terminology	2
CAOT 082	Microcomputer Software Survey in the Office	3

SEMESTER II		UNITS
CAOT 007	Machine Transcription	3
CAOT 030	Office Procedures	3
CAOT 031	Business English	3
BUS 032	Business Communications	3

MAJOR ELECTIVES

Nine (9) units must be completed from the CAOT Major Electives located before the Program Overview section of this discipline.

COMPUTER APPLICATIONS & OFFICE TECHNOLOGIES: INFORMATION PROCESSING SPECIALIST

Associate in Arts Degree

Major Units: 44

The Computer Applications and Office Technologies (CAOT) degree and certificate programs are designed to provide students with administrative and clerical skills required for employment in a variety of areas, such as business and industry, government agencies, schools, and hospitals.

The Information Processing Specialist provides support to assigned administrative personnel; coordinate office activities; monitor assigned activities, and provide meaningful informational recommendations to administrators and directors.

By fulfilling the program requirements, students are prepared for entry level positions. Some duties include:

- Communicating with clients
- Compiling data from various sources
- Coordinating relevant information for special programs
- Maintaining the organizations website
- Monitoring assigned departmental activities
- Ordering software and equipment for the organization
- Responding to a wide range of correspondence

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- The ability to successfully use the computer to process, organize and present data and information in basic to advance business format with no errors.
- The ability to give an independent interpretation of data and material presented to effectively problem-solve with limited resources.
- The ability to communicate effectively via spoken word, print, and media.

REQUIRED COURSES

The following suggested sequence of Required Courses can be taken in any order provided prerequisites are met:

SEMESTER I		UNITS
BUS 022	The Business of Electronic Commerce	3
CAOT 002	Computer Keyboarding and Document Applications II	3
CAOT 082	Microcomputer Software Survey in the Office	3
CAOT 101	Hands-on Internet	1

SEMESTER II		UNITS
CAOT 030	Office Procedures	3
CAOT 031	Business English	3
CAOT 084	Microcomputer Office Applications: Word Processing	3
BUS 038	Business Computations	3

SEMESTER III		UNITS
CAOT 007	Machine Transcription	3
BUS 032	Business Communications	3
CAOT 033	Records Management and Filing	2
CAOT 085	Microcomputer Office Applications: Spreadsheet	3

SEMESTER IV		UNITS
CAOT 086	Microcomputer Office Applications: Database	3
CAOT 088	Microcomputer Office Applications: Desktop Publishing	3
CAOT 098	Microcomputer Office Applications: Discovering Computers: Digital Literacy	3

ELECTIVE

Three (3) units must be completed from the CAOT Major Electives located before the Program Overview section of this discipline.

COMPUTER APPLICATIONS & OFFICE TECHNOLOGIES: INFORMATION PROCESSING SPECIALIST

Certificate of Achievement

Major Units: 33

The Computer Applications and Office Technologies (CAOT) degree and certificate programs are designed to provide students with administrative and clerical skills required for employment in a variety of areas, such as business and industry, government agencies, schools, and hospitals.

The Information Processing Specialist provides support to assigned administrative personnel; coordinate office activities; monitor assigned activities, and provide meaningful informational recommendations to administrators and directors.

By fulfilling the program requirements, students are prepared for entry level positions. Some duties include:

- Communicating with clients
- Compiling data from various sources
- Coordinating relevant information for special programs
- Maintaining the organizations website
- Monitoring assigned departmental activities
- Ordering software and equipment for the organization
- Responding to a wide range of correspondence

SEMESTER I		UNITS
BUS 022	The Business of Electronic Commerce	3
CAOT 002	Computer Keyboarding and Document Applications II	3
CAOT 031	Business English	3
CAOT 082	Microcomputer Software Survey in the Office	3
CAOT 085	Microcomputer Office Applications: Spreadsheet	3
CAOT 101	Hands-on Internet	1

SEMESTER II		UNITS
CAOT 030	Office Procedures	3
BUS 032	Business Communications	3
CAOT 034	Business Terminology	2
CAOT 084	Microcomputer Office Applications: Word Processing	3
CAOT 086	Microcomputer Office Applications: Database	3
CAOT 098	Microcomputer Office Applications: Discovering Computers: Digital Literacy	3

COMPUTER APPLICATIONS & OFFICE TECHNOLOGIES: OFFICE ASSISTANT-CLERICAL

Associate in Arts Degree

Major Units: 42

The Computer Applications and Office Technologies (CAOT) degree and certificate programs are designed to provide students with administrative and clerical competency skills required for employment in a variety of areas, such as business and industry, government agencies, schools, and hospitals. The degree and certificate options are designed to meet the varying needs of a wide spectrum of students, including those seeking:

- Associate in Arts degree(s)
- Certificate(s) that are specific to a discipline or area
- Entry into the job market
- Advanced training and/or retraining
- Lifelong learning

By fulfilling the program requirements, students are prepared for entry level positions, promotion, and career advancement in a variety of office occupations. Students will be proficient in the use of software application programs such as Microsoft Word, Excel, PowerPoint, Access, and Internet research.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Successfully gain a comprehensive knowledge and understanding of the automated office environment and will be prepared to work in a modern office setting.
- Communicate effectively via spoken word, print and media, and work collaboratively with others in an office setting.

REQUIRED COURSES

The following suggested sequence of Required Courses can be taken in any order provided prerequisites are met:

SEMESTER I		UNITS
CAOT 002	Computer Keyboarding and Document Applications II	3
CAOT 033	Records Management and Filing	2
CAOT 034	Business Terminology	2
CAOT 082	Microcomputer Software Survey in the Office	3

SEMESTER II		UNITS
CAOT 031	Business English	3
BUS 038	Business Computations	3

SEMESTER III		UNITS
CAOT 084	Microcomputer Office Applications: Word Processing	3
BUS 032	Business Communications	3
ACCTG 001	Introductory Accounting I	5

SEMESTER IV		UNITS
CAOT 007	Machine Transcription	3
CAOT 030	Office Procedures	3
OFF MCH 002	Office Machines	1

ELECTIVE

Ten (10) units must be completed from the CAOT Major Electives located before the Program Overview section of this discipline.

COMPUTER APPLICATIONS & OFFICE TECHNOLOGIES: OFFICE ASSISTANT-CLERICAL

Certificate of Achievement

Major Units: 34

The Computer Applications and Office Technologies (CAOT) degree and certificate programs are designed to provide students with administrative and clerical competency skills required for employment in a variety of areas, such as business and industry, government agencies, schools, and hospitals. The degree and certificate options are designed to meet the varying needs of a wide spectrum of students, including those seeking.

- Associate in Arts degree(s)
- Certificate(s) that are specific to a discipline or area
- Entry into the job market
- Advanced training and/or retraining
- Lifelong learning

By fulfilling the program requirements, students are prepared for entry level positions, promotion, and career advancement in a variety of office occupations. Students will be proficient in the use of software application programs such as Microsoft Word, Excel, PowerPoint, Access, and Internet research.

SEMESTER I		UNITS
BUS 038	Business Computations	3
CAOT 002	Computer Keyboarding and Document Applications II	3
CAOT 033	Records Management and Filing	2
CAOT 034	Business Terminology	2
CAOT 082	Microcomputer Software Survey in the Office	3
CAOT 084	Microcomputer Office Applications: Word Processing	3

SEMESTER II		UNITS
ACCTG 001	Introductory Accounting I	5
BUS 032	Business Communications	3
CAOT 007	Machine Transcription	3
CAOT 030	Office Procedures	3
CAOT 031	Business English	3
OFF MCH 002	Business Office Machines	1

MEDICAL OFFICE ASSISTANT

Certificate of Achievement

Major Units: 32

Department: **Academic Connections**
Department Chair: **Christina Anketell, Room MA-109e**
213-763-3741, AnketeCP@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Medical Office Assistant	C		32	0	32
A Certificate of Achievement in Medical Office Assistant may be earned by completing 32 units of Required Courses listed below.					

PROGRAM OVERVIEW

The Medical Office Assistant Certificate of Achievement prepares students for entry level employment in a medical/dental front office, such as a doctor/dentist's office, hospital, clinic, and/or medical insurance company.

Upon completion of the certificate program, students are prepared to assume entry level medical/dental office duties and responsibilities. The program may also prepare students for career advancement and retraining in the use of current computer application programs. The program also provides the basic skills that promote success in the workplace. Typical positions include medical clerk, medical transcriber, medical office assistant, and assistant medical office manager.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

- Successfully use medical office software to organize and present information in medical business format.
- Communicate effectively via spoken word, organized records and work collaboratively with others in an medical office setting.

REQUIRED COURSES

SEMESTER I		UNITS
CAOT 002	Computer Keyboarding and Document Applications II	3
CAOT 044	Medical Terminology	3
CAOT 030	Office Procedures	3
CAOT 082	Microcomputer Software Survey in the Office	3
CAOT 033	Records Management and Filing	2

SEMESTER II		UNITS
CAOT 084	Microcomputer Office Applications: Word Processing	3
CAOT 046	Medical Transcription	3
BUS 032	Business Communications	3
OFF MCH 002	Adding and Calculating Machines	1

SEMESTER III		UNITS
CAOT 020	Medical Office Procedures	5
SUPV 001	Elements of Supervision	3

COMPUTER INFORMATION SYSTEMS

Department: **Design and Media Arts**
Department Chair: **Ms. Carole Anderson, Room CY-222**
(213) 763-3642, AndersCL@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Computer Information Systems	A.S.	Plan B	21	24	45
Computer Information Systems	C		21	24	45
At least 60 degree applicable units (44 total major units and Plan B units) are required to earn an Associate degree.					

PROGRAM OVERVIEW

The Computer Information Systems program is designed to prepare students for careers in the exciting Information Technology fields such as programming, software engineering, database administration, computer networking, multimedia programming, and web programming technologies. Microcomputer usage continues to grow at an ever increasing pace as does the demand for workers with solid technical skills and knowledge of programming, networking, and website development and management. The primary goal of the program is to prepare students for entry-level employment as well as providing marketable career advancement knowledge and skills. Students with interest in transferring to an Information Systems program at four-year institutions should consult with the Counseling department for needed course work.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Create and debug code for specifications and write comprehensive program documentation.
- Demonstrate comprehensive understanding of language tools by synthesizing and integrating multiple languages constructs in a single project.
- Demonstrate basic understanding of computer hardware and software.

COMPUTER INFORMATION SYSTEMS

Associate in Science Degree

Major Units: 45

Requirements for the Associate in Science degree in Computer Information Systems may be met by completing 21 units of Required Courses and 24 units of Major Electives with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

Students planning to continue studies at a four-year institution should consult with a counselor concerning a transfer curriculum.

REQUIRED COURSES

		UNITS
CO INFO 700	Computer Concepts	3
CO INFO 701	Introduction to Computers and Their Uses	3
CO INFO 709	Visual Basic Programming	3
CO INFO 733	Microcomputer Data Base Programming	3
CO INFO 739	Programming in C ++	3
CO INFO 757	XHTML Programming and Applications	3
CO INFO 787	Network Essentials	3

MAJOR ELECTIVES

A.S. DEGREE: Select at least 24 units from the courses below
CERTIFICATE: Select at least 24 units from the courses below

		UNITS
CO INFO 035	Multimedia Presentations for the Internet I	3
CO INFO 011	Network Security Fundamentals	3
CO INFO 040	Beginning Level Programming/Computer Games	3
CO INFO 042	Video Game Programming I	3
CO INFO 741	Programming Windows Applications in C++	3
CO INFO 743	Object-Oriented Programming in C++	3
CO INFO 750	Dreamweaver Concepts and Techniques	3
CO INFO 762	Web Scripting	3
CO INFO 770	Local Area Network Administration	3
CO INFO 771	Local Area Network Technical Support	3
CO INFO 790	Programming in JAVA	3
MICROTK 160	Operating Systems	2
MICROTK 166	CCNA Security	3

COMPUTER INFORMATION SYSTEMS

Certificate of Achievement
Major Units: 45

A Certificate of Achievement in Computer Information Systems may be earned by completing 21 units of Required Courses and 24 units of Major Electives listed under for the Associates degree in Computer Information Systems with a grade of "C" or better in each course.

CORRECTIONAL SCIENCE

Department: **Behavioral/Social Sciences/Child Development**
Department Chair: **Dr. Freddie McClain, Room AH-516**
(213) 763-3936, McClaiF@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Correctional Science	A.S.	Plan B	30	6	36
Correctional Science	C		30	6	36
At least 60 degree applicable units (36 total major units and Plan A units) are required to earn an Associate degree.					

PROGRAM OVERVIEW

The Correctional Science program will prepare you to enter the rapidly growing field of corrections. The correctional field has an enormous range of career options, and with the proper training, a future filled with job opportunity and flexibility will be opened. Substantial and growing employment opportunities exist in corrections, public and private detention facilities, law enforcement, private security, immigration and customs, secret service, Federal Bureau of Investigation (FBI), Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF), Homeland Security are just some of the areas open to you. Students will also have the opportunity to gain experience in the field participating in ride a longs and internships with local agencies.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Demonstrate an understanding of the workings of the correctional system by applying definitions, concepts, and principles to courts and correctional settings.
- Apply critical thinking to research, evaluate, and analyze and synthesize the appropriate procedures for the collection of evidence and data in criminal case preparation pertaining to correctional institutions.
- Develop, organize and write an objective report that meets the legal and detailed requirements of correctional institutions.

CORRECTIONAL SCIENCE

Associate in Science
Major Units: 36

Requirements for the Associate in Science degree in Correctional Science may be met by completing 30 units of Required Courses and 6 units of Major Electives with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

REQUIRED COURSES

SEMESTER I		UNITS
ADM JUS 501	An A to Z Guide to Criminal Justice Careers	3
SEMESTER II		**UNITS**
ADM JUS 002	Concepts of Criminal Law	3
ADM JUS 003	Legal Aspects of Evidence	3
ADM JUS 014	Report Writing for Peace Officers	3
ADM JUS 062	Finger Print Classification	3
SEMESTER III		**UNITS**
ADM JUS 073	Law and Minority Groups	3
SEMESTER IV		**UNITS**
ADM JUS 075	Introduction to Corrections	3
ADM JUS 502	Introduction to Forensic Psychology	3
ADM JUS 750	Ethics and the Criminal Justice System	3
PSYCH 014	Abnormal Psychology	3

MAJOR ELECTIVES

Select at least 6 units from the courses below		UNITS
ADM JUS 001	Introduction to Administration of Justice	3
ADM JUS 004	Principles and Procedures of the Justice System	3
ADM JUS 005	Criminal Investigation	3
ADM JUS 008	Juvenile Procedures	3
ADM JUS 041	Officer Safety	3
ADM JUS 067	Community Relations I	3

CORRECTIONAL SCIENCE

Certificate of Achievement
Major Units: 36

A Certificate of Achievement in Correctional Science may be earned by completing 30 units of Required Courses and 6 units of Major Electives listed under for the Associates degree in Correctional Science with a "C" or better in each course.

COSMETOLOGY

Department: **Cosmetology**
Department Chair: **Mr. Elton Robinson, Room MH-241E**
(213) 763-7138, RobinsEJ@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Barbering	C		48	-	48
Cosmetology	A.A.	Plan B	48	-	48
Cosmetology	C		48	-	48
At least 60 degree applicable units (48 total major units and Plan B units) are required to earn an Associate degree. For additional related certificates, refer to programs under Skin Therapy.					

PROGRAM OVERVIEW

Cosmetology and Barbering is the study and practice of professional care of the hair, skin and nails. The LATTC Cosmetology and Barbering programs offer training in hair styling and cutting; chemical treatments, waving, shaving techniques, hair cutting with clippers, razor, shears; skin care, manicures. The Cosmetology and Barbering occupations are governed by stringent state laws which stipulate that all who enter the field must complete 1500 hours of instruction for Barbering, and 1600 hours of instruction for Cosmetology. The LATTC Cosmetology and Barbering programs are carefully designed to prepare students to pass the California State Board of Barbering and Cosmetology examination. These programs integrate a mock state board exam to help familiarize the students with the examination procedures. By fulfilling the program requirements, students will have the knowledge and skills needed to successfully compete in the Beauty and Barbering industry as stylists, salon managers, educators, make-up artists (both conventional and theatrical), product sales, manicurists and business owners.

Important Notes: All hours and operations on time cards are kept for five years per state requirements.

Please note regarding transfer hours: Transfer students with more than 300 hours from another Barbering/Cosmetology program who have not received college level units from an accredited institution may not transfer into Los Angeles Trade Technical College. However, students who cannot transfer hours can start the LATTC Cosmetology and/or Barbering program at the freshman level.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Perform, practice, and demonstrate all areas of cosmetology skills observing the safety and sanitation rules set forth by the California Board of Barbering and Cosmetology.
- Be prepare to take the written and practical California Board of Cosmetology Licensure Examination.
- Demonstrate knowledge and skills of cosmetology industry requirements regarding good work ethic, resumes and employment guidelines, client building, and client retention as it related business.

BARBERING

Certificate of Achievement

Major Units: 48

A Certificate of Achievement in Barbering may be earned by completing 48 units of Required Courses listed with a grade of "C" or better in each course.

REQUIRED COURSES

SEMESTER I		UNITS
BAR 113	Freshman Barbering I	6
BAR 114	Freshman Barbering II	6
SEMESTER II		**UNITS**
BAR 123	Barbering Jr. Salon I	6
BAR 124	Barbering Jr. Salon II	6
SEMESTER III		**UNITS**
BAR 133	Barbering Jr. Salon III	6
BAR 134	Barbering Jr. Salon IV	6
SEMESTER IV		**UNITS**
BAR 143	Barbering Sr. Salon I	6
BAR 144	Barbering Sr. Salon II	6

Note: Completion of 1500 hours of instruction as required by the State Board of Cosmetology regulations.

This program is currently pending approval for federal financial aid; please see a counselor for assistance.

COSMETOLOGY

Associate in Arts Degree

Major Units: 48

Requirements for the Associate in Arts degree in Cosmetology may be met by completing 48 units of Required Courses with a grade of "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

REQUIRED COURSES

SEMESTER I		UNITS
CSMTLGY 111	Freshman Cosmetology	6
CSMTLGY 112	Junior Salon I	6
SEMESTER II		**UNITS**
CSMTLGY 121	Junior Salon II	6
CSMTLGY 122	Junior Salon III	6
SEMESTER II		**UNITS**
CSMTLGY 131	Tinting I	6
CSMTLGY 132	Tinting II	6
SEMESTER IV		**UNITS**
CSMTLGY 141	Senior Salon I	6
CSMTLGY 142	Senior Salon II	6

(Completion of 1600 hours of instruction as required by the State Board of Cosmetology regulations.)

MAJOR ELECTIVES

		UNITS
CSMTLGY 101	Introduction to Cosmetology	3
CSMTLGY 210	Introduction to Hair Coloring and Styling	3
CSMTLGY 211	Intermediate Hair Coloring and Styling	3
CSMTLGY 214	Advanced Hair Coloring and Styling	3
CSMTLGY 215	Contemporary Styling Techniques	3
CSMTLGY 217	Multi-Texture Design (Level 1 to 2)	3
CSMTLGY 221	Advanced Makeup Techniques	3
CSMTLGY 222	Introduction to Special Effects Makeup Techniques	3

COSMETOLOGY

Certificate of Achievement
Major Units: 48

A Certificate of Achievement in Cosmetology may be earned by completing 48 units of Required Courses listed under for the Associate degree in Cosmetology with a grade of "C" or better in each course.

CULINARY ARTS

Department: **Culinary Arts/Professional Baking**
Department Chair: **Mr. Steve Kasmar, Room SA-118**
(213) 763-7332, KasmarSL@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Culinary Arts	A.A.	Plan B	48	-	48
Culinary Arts	C		48	-	48

At least 60 degree applicable units (48 total major units and Plan B units) are required to earn an Associate degree.

For additional related degrees and certificates, refer to programs under Baking Professional and Restaurant Management.

PROGRAM OVERVIEW

The Culinary Arts department at LATTC has the proud history of being one of the oldest cooking schools in the nation. The program offers an extensive "hands on" and theory based culinary arts education that prepares students to enter the highly competitive hospitality industry. The department hosts professional industry-seasoned chefs as faculty, bringing their experiences from around the world. In addition to rigorous classroom instruction, students are trained in a working foodservice facility while attending classes. The Culinary Arts Associate in Arts degree and Certificate of Achievement are recognized and accredited by the American Culinary Federation Educational Foundation (ACFEF). On graduating from the LATTC Culinary Arts program, students are qualified to work as cooks, line cooks, caterers, private chefs, chef assistants, and sous chefs.

The Culinary Arts program has successfully prepared students for the hospitality industry for many years. By fulfilling the program requirements, students will possess a working foundation of skills necessary to work in a professional industry kitchen. Within the program, students will illustrate a working foundation of a professional industry kitchen. Students are proficient in cooking techniques and terminology including meat fabrication and cookery, hot and cold sauce preparation, vegetable identification and production, task organizing and time management. Successful students will graduate with a working knowledge of culinary nutrition and fundamental management skills, as well as National Restaurant Association Serve Safe Certification.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Recognize industry standards for entry, supervisory, and management level employment.
- Demonstrate professional culinary techniques according to industry standards.
- Evaluate proper practices in various industry segments.

CULINARY ARTS

Associate in Arts Degree
Major Units: 48

Requirements for the Associate in Arts degree in Culinary Arts may be met by completing 48 units of Required Courses with a grade of "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

REQUIRED COURSES

SEMESTER I		UNITS
CLN ART 120	Front of House Dining/Room Services	4
CLN ART 111	Culinary Arts Orientation I	4
CLN ART 112	Sanitation and Safety	2
CLN ART 170	Culinary Nutrition	2

SEMESTER II		UNITS
CLN ART 121	Garde Manger I—Baking	6
CLN ART 122	Garde Manger II - Charcuterie	6

SEMESTER III		UNITS
CLN ART 131	Culinary Arts - Breakfast I	6
CLN ART 132	Culinary Arts - Entremetier/Saucier	6

SEMESTER IV		UNITS
CLN ART 141	Butchery/Center of the Plate and Quantity Food Cookery	6
CLN ART 235	Menu Planning and Purchasing	4
CLN ART 240	Restaurant Supervision and Training	2

NOTE: Most Baking/Culinary Arts courses have prerequisites and/or co-requisites. Refer to the Course Descriptions section of the catalog for additional details.

CULINARY ARTS

Certificate of Achievement
Major Units: 48

A Certificate of Achievement in Culinary Arts may be earned by completing 48 units of Required Courses listed under for the Associate degree in Culinary Arts with a grade of "C" or better in each course.

DIESEL AND RELATED TECHNOLOGY

Department: **Advanced Transportation & Manufacturing**
Department Chair: **Mr. Jess Guerra, Room F-212E**
(213) 763-3919, GuerraJ@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Diesel and Related Technology	A.S.	Plan B	45	-	45
Diesel and Related Technology	C		45	-	45

At least 60 degree applicable units (45 total major units and Plan B units) are required to earn an Associate degree.

For additional related degrees and certificates, refer to programs under Automotive Collision Repair, Automotive Technology, and Motorcycle Repair Mechanics.

PROGRAM OVERVIEW

If you live in the United States, almost every single thing you eat, wear or use has been transported by diesel powered vehicles and alternative/green power plants.

If you live in the United States, almost every single thing you eat, wear or use was delivered by a diesel-powered vehicle.

New EPA/CARB regulations have impacted the fuel technology and energy source/design used. Trucks, trains, buses and many other medium and heavy duty vehicles have evolved to match today's more stringent clean air emission standards. Graduates of the Diesel Technology program are well paid and have a diverse choice of areas in which to specialize. In recent years, the demand from local employers has exceeded our supply of qualified graduates as the program continues to grow.

After successful completion of the program requirements, students will become proficient in all aspects of diesel engine fundamentals, electrical components, fuel systems, overhaul procedures, air brake system and the construction and operation of diesel engines.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Identify and explain the operation of diesel vehicle systems (such as engine, transmissions, brakes, electrical and suspension) along with their related subsystems according to the standards of a professional shop environment.
- Utilize the various manufacturer diagnostic software, tools and shop equipment to accurately diagnose and repair diesel powered vehicles.
- Demonstrate proficiency in adhering to industry safety standards when performing repairs on diesel vehicle systems.

DIESEL AND RELATED TECHNOLOGY

Associate in Science Degree
Major Units: 45

Requirements for the Associate in Science degree in Diesel and Related Technology may be met by completing 45 units of Required Courses with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

REQUIRED COURSES

SEMESTER I **UNITS**

DIESLTK 112 Diesel Engine and Electrical Fundamentals 11
-or-
DIESLTK 112A Diesel Engine Fundamentals (5.5)
- and -
DIESLTK 112B Diesel Engine Fundamentals (5.5)

SEMESTER II **UNITS**

DIESLTK 122 Diesel Fuel Injection Systems & Basic Hydraulics and Air Conditioning 11
-or-
DIESLTK 122A Diesel Fuel Injection Systems (5.5)
- and -
DIESLTK 122B Basic Hydraulics and Air Conditioning Systems (5.5)

WELDG/E 201A Welding-Gas and Electric IA (may be taken in either 1st or 2nd semester) 1
-or- DIESLTK 185 Directed Study – Diesel and Related Technology (1)

Admission to third semester courses is limited to those who have received a grade of "C" or better in all first year Diesel courses.

SEMESTER III **UNITS**

DIESLTK 132 Heavy Duty Drive Train & Air Brake Systems 11
-or-
DIESLTK 132A Heavy Duty Drive Train (5.5)
- and -
DIESLTK 132B Air Brake Systems (5.5)

SEMESTER IV **UNITS**

DIESLTK 142 Diesel Engine Overhaul & Electronic Engine Controls 11
-or-
DIESLTK 142A Diesel Engine Overhaul (5.5)
- and -
DIESLTK 142B Electronic Engine Controls (5.5)

NOTE: Students are required to provide basic hand tools, Transportation Technology uniform and personal safety equipment.

DIESEL AND RELATED TECHNOLOGY

Certificate of Achievement

Major Units: 45

A Certificate of Achievement in Diesel and Related Technology may be earned by completing 45 units of Required Courses listed under for the Associate degree in Diesel and Related Technology with a "C" or better in each course.

By fulfilling the program requirements, students are able to enter the job market as diesel technicians.

ELECTRICAL CONSTRUCTION & MAINTENANCE

Department: Construction, Design, and Manufacturing
Department Chair: Mr. William (Bill) Elarton, Room SQ-122
(213) 763-3701, ElartoWD@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Electrical Construction and Maintenance —(day only)	A.S.	Plan B	42-48	1	42-48
Electrical Construction and Maintenance —(day only)	C		42-48	1	42-48
Electrical Construction and Maintenance: Construction Tech —(evening only)	A.A.	Plan B	40-48	-	40-48
Electrical Construction and Maintenance: Construction Tech —(evening only)	C		48	-	48
At least 60 degree applicable units (total major units and Plan B units) are required to earn an Associate degree.					

PROGRAM OVERVIEW

To meet the training needs of persons interested in becoming an Electrician LATTC offers an Electrical Construction and Maintenance Associate of Science degree, and Electrical Construction and Maintenance Construction Technologies Associate of Arts degree, as well as Certificates of Achievement.

The Associate in Science degree is designed for individuals seeking entry level positions in the field. Students enrolling in this program should be able to commit to full time student status, which is approximately 24 hours per week in the classrooms and laboratories, plus at least 12 hours of homework every week. This time commitment is necessary to allow for hands on training in the laboratory applications used during the course of instruction.

The Associate in Arts degree is an evenings only course of study designed for individuals, currently working in the electrical field, who want to improve or expand their skills. Due to the limitations of the student's available evening hours, much of the hands on laboratory component is assumed to be provided at the student's place of employment. Depending on availability, the Associate in Arts degree may require more time to complete. See the Department Chair for details prior to enrolling.

By fulfilling the program requirements, students will have the necessary knowledge and skills for a career in Residential, Commercial, and Industrial Construction and Maintenance of Electrical Systems. Electrical theory, electrical controls, conduit installation, blueprints, low voltage systems, maintenance practices, equipment installation, etc. are just some of the skills that will be mastered during this program.

ELECTRICAL CONSTRUCTION AND MAINTENANCE

Associate in Science Degree

Major Units: 48

Requirements for the Associate in Science degree in Electrical Construction and Maintenance may be met by completing 47 units of Required Courses and 1 unit of Major Electives with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Perform trade calculations related to electrical construction and maintenance work,. such as: convert from a tape measure to fraction and make a calculation and convert back to tape measure; voltage drop and wire ampacity deration; add DC power, voltages, currents, resistances, inductances and capacitances in series, parallel, and in combination; Use triangles to find AC voltage, currents, resistances, inductances and capacitances in series, parallel, and in combination;
- Locate, interpret and apply technical information such as the National Electrical Code.
- Utilize hand and power tools for the use for which the are intended in a safe and workmanlike manner and be able to work safely, and recognize hazards of the construction industry.

REQUIRED COURSES

SEMESTER I		UNITS
ECONMT 115	Fundamentals of D.C. Electricity	3
ECONMT 116	Hand Tools and Wiring Practices	2
ECONMT 117	Elementary Circuit Practices	4
ECONMT 119	Electrical Construction and Maintenance	3
-or- ECONMT 173	*Electrical Mathematics I (3)*	

SEMESTER II		UNITS
ECONMT 120	Industrial Control Systems	3
ECONMT 128	Industrial Control Systems Practices	3
ECONMT 129	Fundamentals of Alternating Current	3
ECONMT 169	Alternating Current Practices	2

SEMESTER III		UNITS
ECONMT 130	Principles of Industrial Electric Power	3
ECONMT 136	Industrial Power Applications	3
ECONMT 137	Industrial Electronic Control Systems	3
ECONMT 138	Applications of Electrical and Electronic Devices	2
ECONMT 142	Basic Programmable Logic Controls (PLC)	1

SEMESTER IV		UNITS
ECONMT 140	Construction Wiring Principles and Practices	3
ECONMT 150	Introduction to the Electrical Codes	3
ECONMT 167	Electrical Construction Wiring Techniques	3
ECONMT 168	Installation of Electrical Wiring	2
ECONMT 193A	Conduit Bending Laboratory	1

MAJOR ELECTIVES

Select at least 1 unit from the courses below		UNITS
BLDGCTQ 101	Contract's License Law	3
ECONMT 006	Security and Alarm Technician Certificate	3
ECONMT 007	Home Theater and Commercial Audio and Video Installation Theory and Practices	3
ECONMT 100	(O.S.H.A.) Safety Standards: Construction & Industry	2
ECONMT 101	Electrical Craft Helper	4
ECONMT 105	Fundamentals of Solar Electricity	3
ECONMT 139 †	Electrical Maintenance Practice	2
ECONMT 143 †	Solid State Fundamentals of Automation	4
ECONMT 159	Programmable Logic Controls (PLC)	4
ECONMT 163 †	Electro Mechanical Principles and Practices	4
ECONMT 171	Electrical Codes and Ordinances I	3
ECONMT 172	Electrical Codes and Ordinances II	3
ECONMT 173	Electrical Mathematics I	3
ECONMT 174	Electrical Mathematics II	3
ECONMT 177	Electric Motor Control I	3
ECONMT 178	Electric Motor Control II	3
ECONMT 181	Basic Wiring Practices	3
ECONMT 182	Basic Diagram and Circuit Practices	1
ECONMT 183	Residential Electric Wiring	3
ECONMT 184	Motor Control Principles and Practices	3
ECONMT 186	Industrial Electrical Principles and Practices	3
ECONMT 187	Advanced Programmable Controllers	4
ECONMT 188 †	Offline (PLC) Programming	3
ECONMT 190	Electrical Code Calculations	3
ECONMT 191	Commercial Wiring and Practices	2
ECONMT 192	Residential Wiring and Practices	2
ECONMT 193	Conduit Bending and Calculations	3
ECONMT 193A	Conduit Bending Laboratory	1
ECONMT 194 †	Documentation Control in Construction Projects	2
ECONMT 195	Grounding: Fundamentals, Applications and Practices	3
ECONMT 196	Infrastructure Wiring Practices	4
ECONMT 197	Low Voltage Electrical Practices	3
ECONMT 199	Journeyman Electrician Exam Preparation	3
ECONMT 200 †	Electrical Construction Inspection	3
ECONMT 205	Solar Energy Installation & Maintenance Principles and Practices	2
ECONMT 210 †	Electrical Construction and Maintenance	3
ECONMT 941	Cooperative Education-Electrical Construction & Maintenance	4

† Course currently unavailable

ELECTRICAL CONSTRUCTION & MAINTENANCE

Certificate of Achievement

Major Units: 48

A Certificate of Achievement in Electrical Construction and Maintenance may be earned by completing 47 units of Required Courses and 1 unit of Major Electives listed under for the Associates degree in Electrical Construction and Maintenance with a "C" or better in each course.

ELECTRICAL CONSTRUCTION & MAINTENANCE: CONSTRUCTION TECH

Associate in Arts Degree

Major Units: 43

Requirements for the Associate in Arts degree in Electrical Construction and Maintenance: Construction Tech may be met by completing 43 units of Required Courses with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** programs, students are able to:

- Perform trade calculations related to electrical construction and maintenance work,. such as: convert from a tape measure to fraction and make a calculation and convert back to tape measure; voltage drop and wire ampacity deration; add DC power, voltages, currents, resistances, inductances and capacitances in series, parallel, and in combination; Use triangles to find AC voltage, currents, resistances, inductances and capacitances in series, parallel, and in combination;
- Locate, interpret and apply technical information such as the National Electrical Code.
- Utilize hand and power tools for the use for which the are intended in a safe and workmanlike manner and be able to work safely, and recognize hazards of the construction industry.

REQUIRED COURSES

LEVEL I		UNITS
ECONMT 115	Fundamentals of D.C. Electricity	3
ECONMT 116	Hand Tools and Wiring Practices	2
ECONMT 173	Electrical Mathematics I	3
ECONMT 181	Basic Wiring Practices	3
ECONMT 182	Basic Diagram and Circuit Practices	1

LEVEL II		UNITS
ECONMT 120	Industrial Control Systems	3
ECONMT 129	Fundamentals of Alternating Current	3
ECONMT 177	Electric Motor Control I	3
ECONMT 183	Residential Electric Wiring	3

LEVEL III		UNITS
ECONMT 128	Industrial Control Systems Practices	3
ECONMT 171	Electrical Codes and Ordinances I	3
ECONMT 184	Motor Control Principles and Practices	3

LEVEL IV		UNITS
ECONMT 159	Programmable Logic Controls (PLC)	4
ECONMT 172	Electrical Codes and Ordinances II	3
ECONMT 186	Industrial Electrical Principles and Practices	3

MAJOR ELECTIVES

		UNITS
BLDGCTQ 101	Contract's License Law	3
ECONMT 006	Security and Fire Alarm Technician Certification	3
ECONMT 007	Home Theater and Commercial Audio and Video Installation Theory and Practices	3
ECONMT 100	(O.S.H.A.) Safety Standards: Construction & Industry	2
ECONMT 101	Electrical Craft Helper	4
ECONMT 105	Fundamentals of Solar Electricity	3
ECONMT 139 †	Electrical Maintenance Practice	2
ECONMT 143 †	Solid State Fundamentals of Automation	4
ECONMT 163 †	Electro Mechanical Principles and Practices	4
ECONMT 174	Electrical Mathematics II	3
ECONMT 178	Electric Motor Control II	3
ECONMT 187	Advanced Programmable Controllers	4
ECONMT 188 †	Offline (PLC) Programming	3
ECONMT 190	Electrical Code Calculations	3
ECONMT 191	Commercial Wiring and Practices	2
ECONMT 192	Residential Wiring and Practices	2
ECONMT 193	Conduit Bending Laboratory	3
ECONMT 193A	Conduit Bending Laboratory	1
ECONMT 194 †	Documentation Control in Construction Projects	2
ECONMT 195	Grounding: Fundamentals, Applications and Practices	3
ECONMT 196	Infrastructure Wiring Practices	4
ECONMT 197	Low Voltage Electrical Practices	3
ECONMT 199	Journeyman Electrician Exam Preparation	3
ECONMT 200 †	Electrical Construction Inspection	3
ECONMT 205	Solar Energy Installation & Maintenance Principles and Practices	2
ECONMT 210 †	Electrical Construction and Maintenance	3

ELECTRICAL CONSTRUCTION & MAINTENANCE: CONSTRUCTION TECH

Certificate of Achievement

Major Units: 43

A Certificate of Achievement in Electrical Construction and Maintenance: Construction Tech may be earned by completing 43 units of Required Courses with a "C" or better in each course.

† Course currently unavailable

ELECTRONICS COMMUNICATIONS

Department: Advanced Transportation & Manufacturing
Department Chair: Mr. Jess Guerra, Room F-212E
(213) 763-3919, GuerraJ@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Electronics Communications	A.S.	Plan B	44	-	44
Electronics Communications	C		44	-	44
At least 60 degree applicable units (44 total major units and Plan B units) are required to earn an Associate degree.					

PROGRAM OVERVIEW

This program covers, circuit analysis of several complete FM systems. By completing the certificate and/or degree, students will be able to pass the Federal Communications Commission (FCC) Examination. In addition, by fulfilling the program requirements, students are proficient in the operation of AM/FM Transmitters and can trouble shoot AM/FM Receivers as well as install C Band, K/U Band, and digital satellites systems (DSS). Students will also have an understating of cordless phones, microwave receivers/transmitters, and cell phone systems

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Demonstrate knowledge of reading electronic symbols and schematic diagrams.
- Perform mathematical calculations and measurements related to electronics circuit analysis.
- Demonstrate basic understanding of semiconductors devices, digital circuits, and electronics communications theory.

ELECTRONICS COMMUNICATIONS

Associate in Science Degree

Major Units: 44

Requirements for the Associate in Science degree in Electronics Communications may be met by completing 44 units of Required Courses with a grade of "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

REQUIRED COURSES

SEMESTER I		UNITS
ETNTLGY 150	Soldering Surface Mount Technology	3
ETNTLGY 151	DC Theory and Circuit Fundamentals	3
ETNTLGY 152	DC Theory and Circuit Fundamentals Lab	2
ETNTLGY 153	Applied DC Calculations	1
ETNTLGY 254	Computer Applications for Electronics Technology	3

SEMESTER II		UNITS
ETNTLGY 154	AC Theory and Circuit Fundamentals	3
ETNTLGY 155	AC Theory and Circuit Fundamentals Lab	2
ETNTLGY 156	Applied AC Calculations	1
ETNTLGY 255	Computer-Based Electronics I	1
PHYSICS 011	Introductory Physics	4

SEMESTER III		UNITS
ETNTLGY 157	Semiconductors Devices and Applications	3
ETNTLGY 158	Semiconductors Devices and Electronics Laboratory	3
ETNTLGY 159	Digital Circuits and Applications	3
ETNTLGY 160	Digital Circuits and Applications Lab	2

SEMESTER IV		UNITS
ETNTLGY 161	F.C.C. Radio Operator License	3
ETNTLGY 162	Introduction to Electronics Communications	3
ETNTLGY 163	Introduction to Electronics Communications Lab	3
ECONMT 142	Basic Programmable Logic Controls (PLC)	1

MAJOR ELECTIVES

		UNITS
ETNTLGY 252	Networking Cabling Specialist	3
ETNTLGY 253	Fiber Optics	3
MICROTK 077	Cisco Networking Academy-Semester I	3
MICROTK 160	I.T. Essentials Application Software Fundamentals	2
MICROTK 162	I.T. Essentials Networking Personal Computers	4
MICROTK 164	I.T. Essentials Microcomputer Theory and Servicing	5

ELECTRONICS COMMUNICATIONS

Certificate of Achievement

Major Units: 44

A Certificate of Achievement in Electronics Communications may be earned by completing 44 units of Required Courses listed under for the Associate degree in Electronics Communication with a "C" or better in each course.

ENGLISH

Department: English /ESL
Department Chair: Ms. Janice Gangel-Vasquez, ROOM AH-515
(213) 763-5516, GangelJM@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
English (Transfer)	AA-T	CSU/ IGETC	18		18

PROGRAM OVERVIEW

The Associates in Arts Degree in English for Transfer (AA-T) is for students who intend to complete a bachelor's degree in English at a California State University. Core course work explores primarily British and American writers through an array of literary traditions, providing opportunities for students to express their understanding and appreciation of the literary world through analysis, research and composition.

This degree provides lower division preparation for students planning to transfer into English programs. Students will take courses in English as well as related fields required for English majors. Students who complete this degree will be guaranteed admission with junior status to the California State University, though not a particular campus or major, and will be given priority admission to our local CSU campus.

The Associate in Arts in English for Transfer (AA-T) degree will be awarded upon completion of the following:

- Completion of 60 transferable semester units to the California State University
- Obtainment of a minimum grade point average of 2.0 in all transferable coursework.
- Full completion of one the following General education patterns
  - The Intersegmental General Education Transfer Curriculum (IGETC), with "C"s or better in all coursework AND completion of Area 1C Oral communication (CSU admission requirement)
  - California State University General Education – Breadth Requirements (CSU GE). Areas A1, A2, A3, & B4 must be completed with a grade of "C" or better (CSU admission requirement)
- A minimum of 18 semester units required for the major
- All courses in the major must be completed with a grade of "C" or better or a "P" if the course is taken on a "Pass-No Pass" basis (Title 5 § 55063).

NOTE: Up to 6 units may be completed outside of LATTC. However those courses must be C-ID approved for the major on that campus. Check with a counselor or www.ASSIST.org

† Course currently unavailable

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree** program, students are able to:

- Write coherent college-level, in-class essays with clear syntax and varied sentence structure, and exhibiting knowledge of Standard American English rules of punctuation and grammar.
- Conduct and present research, conforming to Modern Language Association (MLA) or other collegiate/industry standard documentation styles.
- Analyze and evaluate a diverse body of literature in a variety of presentation formats.

ENGLISH FOR TRANSFER (AA-T)

Associate in Arts for Transfer Degree

Major Units: 18

Requirements for the Associate in Arts degree in English for Transfer (AA-T) may be met by completing 18-20 units of coursework with a "C" or better along with general education courses meeting IGETC and CSU Requirements.

REQUIRED CORE (6 UNITS):		UNITS
ENGLISH 102	College Reading and Composition II	3
ENGLISH 103	Composition and Critical Thinking	3

ELECTIVE COURSES: LIST A- SELECT ANY TWO (2) OF THE FOLLOWING (6 UNITS)		
ENGLISH 203	World Literature I	3
ENGLISH 205	English Literature I	3
ENGLISH 206	English Literature II	3
ENGLISH 207	American Literature I	3
ENGLISH 208	American Literature II	3

ELECTIVE COURSES: LIST B- SELECT ANY ONE (1) COURSE. ANY COURSE NOT USED IN LIST A OR ONE COURSE FROM THIS LIST (3 UNITS)		
ENGLISH 127	Creative Writing	3

ELECTIVE COURSES: LIST C- SELECT ANY ONE (1) COURSE NOT ALREADY USED IN LISTS A OR B OR ONE OF THE FOLLOWING COURSES.(3 UNITS)		
ENGLISH 212	Poetry	3
ENGLISH 215	Shakespeare I	3
HUMAN 001	Cultural Patterns of Western Civilization	3

MAJOR REQUIRED SUBTOTAL	**18 units**
CSU or IGETC for CSU GE Pattern	**37-39 units**
CSU Transferable Elective units	**(as needed to reach 60 units)**
TOTAL CSU transferrable units	**60 units**

FASHION

Department: **Design and Media Arts**
Department Chair: **Ms. Carole Anderson, Room CY-222**
(213) 763-3642, AndersCL@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Fashion Design —(day only)	A.A.	Plan B	40	6	46
Fashion Design —(day only)	C		40	6	46
Fashion Technology —(evening only)	A.A.	Plan B	36	6	42
Fashion Technology —(evening only)	C		28	-	28
At least 60 degree applicable units (total major units and Plan B units) are required to earn an Associate degree. For additional related degrees and certificates, refer to programs under Fashion Merchandising and Tailoring.					

PROGRAM OVERVIEW

The Los Angeles Trade Technical College Fashion Design and Fashion Technology programs prepare students for careers in all areas of apparel manufacturing from assistant designers to production management.

The Fashion Design and Fashion Technology programs provide specialized training in current methods of garment construction, illustration, draping, pattern making, and grading. Instruction includes the most widely used apparel software programs. In addition to foundational principles, students are encouraged to experiment with creative design problems throughout the two year program. The Fashion Design program is staffed by professional instructors who have spent many years in the fashion industry as designers, pattern makers, production managers and manufacturers in all categories of apparel. The Fashion Design classrooms are equipped like design rooms complete with industrial sewing machines, pressing equipment, grading machines, dress forms and industrial cutting tables. In addition, the college has state of the art computer lab classrooms where instruction is offered in Gerber Technology, Lectra Inc.,Tukatech and PAD Systems, which allows students to master technology along with traditional skills. The newest computer lab was developed to answer industry demand for training in fashion and technical illustration using Adobe Photoshop and Illustrator.

The fashion community contributes to the program through student scholarships donated by professional groups, companies and individuals. Fashion professionals are invited to work with and critique student designs and prominent speakers visit the campus on a regular basis to lecture on current fashion industry trends. Foreign and domestic fashion publications are available for student reference as well as an extensive collection of historical fashion magazines. The Sharon Tate Costume Collection houses a vast collection of apparel from noted

designers and historical costumes, used to inspire students and offer creative solutions to design problems. In addition, the apparel community provides internship opportunities for department students through the Cooperative Education courses. These internships offer students real life experiences and potential for permanent employment.

By fulfilling the program requirements, students are proficient in construction and assembly, patternmaking and grading, technical and fashion illustration, and draping techniques used to manufacture soft goods. In addition, they will understand and be able to apply computer technology to industry related tasks. The comprehensive two year program stresses industrial problem solving using professional techniques.

Los Angeles is the leading center for apparel manufacturing in the United States. These firms require personnel trained in the design and technical aspects of clothing production. Many local apparel manufacturing firms employ LATTC graduates as designers, assistant designers, grader/marker makers, pattern makers, technical designers, specification writers, and production managers. The program equips graduates with the skills necessary to work in the local industry as well as the global market.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Use industry-standard, manual and computerized tools, technologies and techniques, to design and construct apparel that meets industry standards.
- Use industry recognized documents and technical specifications for production applications and product development that meet the professional standards of the apparel industry.

FASHION DESIGN

Associate in Arts Degree

Major Units: 46

Requirements for the Associate in Arts degree in Fashion Design may be met by completing 40 units of Required Courses and 6 units of Major Electives with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

The daytime fashion design classes are part of a structured program, which each student are strongly advised take in sequential order. Each semester is divided into two segments, and classes meet five days per week. .

REQUIRED COURSES

SEMESTER I		UNITS
FASHDSN 111	Clothing Construction	5
FASHDSN 112	Basic Fashion Art and Design	5

SEMESTER II		UNITS
FASHDSN 122	Grading and Marker Making	5
FASHDSN 120	Basic Pattern Making & Design	5

SEMESTER III		UNITS
FASHDSN 130	Draping & Design	5
FASHDSN 132	Advanced Patterns and Design	5

SEMESTER IV		UNITS
FASHDSN 141	Advanced Design	5
FASHDSN 142	Manufacturing Production	5

MAJOR ELECTIVES

Select at least 6 units from the courses below		UNITS
FASHDSN 119	History of Costume	3
FASHDSN 119A	History of Costume I	1.5
FASHDSN 119B	History of Costume II	1.5
FASHDSN 125	Textiles, Fibers and Fabrics, Properties & Manufacturing	3
FASHDSN 139	Coordinated Sportswear	2
FASHDSN 264	Apparel Computer Systems Analysis	2
FASHDSN 101 †	Introduction to Fashion Design	2
FASHDSN 118	Advanced Clothing Construction	2
FASHDSN 126	Manufacturing and Design Room Process	1
FASHDSN 137	Bustier Creation	2
FASHDSN 138	Tailoring Techniques for Ready to Wear	2
FASHDSN 140	Advanced Draping and Design	2
FASHDSN 147	Fashion Show Production	2
FASHDSN 148	Active Wear Design	2
FASHDSN 151	Advanced Fashion Art and Design	2
FASHDSN 941	Cooperative Education – Fashion Design	4
FASHMER 001	Entrepreneurial Fashion	3
FASHMER 020	Apparel Product Development	3
FASHMER 025	Fashion Industry Interchange	3
FASHMER 030	Wholesale Merchandising	3
FASHMER 050	International Fashion Business	3

FASHION DESIGN

Certificate of Achievement

Major Units: 46

A Certificate of Achievement in Fashion Design may be earned by completing 40 units of Required Courses and 6 units of Major Electives listed under for the Associates degree in Fashion Design with a "C" or better in each course.

FASHION TECHNOLOGY

Associate in Arts Degree

Major Units: 42

Requirements for the Associate in Arts degree in Fashion Technology may be met by completing 36 units of Required Courses and 6 units of Major Electives with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

The Fashion Technology Associate in Arts degree is designed for those students attending in the evening and on Saturday . Since the structure of the evening courses does not allow for extensive lab experience, the department has a comprehensive internship program offered through the Cooperative Education Office, which allows students to obtain valuable on the job experience.

Los Angeles is the leading center for apparel manufacturing in the United States. These firms require personnel trained in the design and technical aspects of clothing production. This evening/Saturday program allows industry professionals the opportunity to upgrade their skills and advance in the latest technology.

† Course currently unavailable

REQUIRED COURSES

		UNITS
FASHDSN 225	Pattern Making and Design I	2
FASHDSN 226	Pattern Making and Design II	2
FASHDSN 227	Pattern Making and Design III	2
FASHDSN 228	Pattern Grading and Design I	2
FASHDSN 229	Pattern Grading and Design II	2
FASHDSN 236	Fashion Sketching and Design I	2
FASHDSN 237	Fashion Sketching and design II	2
FASHDSN 238	Fashion Sketching and Design III	2
FASHDSN 239	Gown Draping and Design I	2
FASHDSN 240	Gown Draping and Design II	2
FASHDSN 241	Gown Draping and Design II	2
FASHDSN 941	Cooperative Education – Fashion Design	8

—AND—

Select 6 units from one of the options below:

OPTION 1: SAMPLE MAKING AND DESIGN		UNITS
FASHDSN 222	Sample Making and Design I	2
FASHDSN 223	Sample Making and Design II	2
FASHDSN 224	Sample Making and Design III	2

OPTION 2: TAILORING TECHNIQUES		UNITS
TAILRNG 250	Tailoring Techniques I	2
TAILRNG 251	Tailoring Techniques II	2
TAILRNG 252	Tailoring Techniques III	2
TAILRNG 253	Tailoring Techniques IV	2

MAJOR ELECTIVES

Select at least 6 units from courses below		UNITS
FASHDSN 244	Computer Fashion Art	2
FASHDSN 255	Computerized Product Design	2
FASHDSN 256	CAD Apparel Pre-Production Techniques	2
FASHDSN 257	Apparel Pattern Design Systems	2
FASHDSN 250	Beginning Computer Apparel Systems	2
FASHDSN 258	Computer-Aided Pattern Systems	2
FASHDSN 270	Illustrator for Fashion Art	2

NOTE: Courses offered for the Fashion Design, Associate in Arts degree may be substituted for courses required for the Fashion Technology, Associates in Arts degree

FASHION TECHNOLOGY

Certificate of Achievement

Major Units: 28

A Certificate of Achievement in Fashion Technology may be earned by completing 28 units of Required Courses with a "C" or better in each course.

A full range of condensed lab courses in clothing construction, sketching, grading, draping and pattern making are offered during the evening and on Saturdays. These courses may be taken in any order, and lead to a Certificate in Fashion Technology.

By fulfilling the program requirements, students are proficient in construction and assembly methods, illustration, both technical and fashion, pattern making, grading, and draping techniques. These courses will prepare students for apparel computer courses where they will apply skills using the latest computer technology.

Evening students may receive a Certificate of Achievement after taking 28 units that include:

REQUIRED COURSES

		UNITS
FASHDSN 225	Pattern Making and Design I	2
FASHDSN 226	Pattern Making and Design II	2
FASHDSN 227	Pattern Making and Design III	2
FASHDSN 228	Pattern Grading and Design I	2
FASHDSN 229	Pattern Grading and Design II	2
FASHDSN 236	Fashion Sketching and Design I	2
FASHDSN 237	Fashion Sketching and Design II	2
FASHDSN 238	Fashion Sketching and Design III	2
FASHDSN 239	Gown Draping and Design I	2
FASHDSN 240	Gown Draping and Design II	2
FASHDSN 241	Gown Draping and Design III	2
FASHDSN 941	Cooperative Education – Fashion Design	8

AND

Select six units from one of the options below

OPTION 1: SAMPLE MAKING AND DESIGN		UNITS
FASHDSN 222	Sample Making and Design I	2
FASHDSN 223	Sample Making and Design II	2
FASHDSN 224	Sample Making and Design III	2

OPTION 2: TAILORING TECHNIQUES		UNITS
TAILRNG 250	Tailoring Techniques I	2
TAILRNG 251	Tailoring Techniques II	2
TAILRNG 252	Tailoring Techniques III	2
TAILRNG 253	Tailoring Techniques IV	2

FASHION MERCHANDISING

Department: **Design and Media Arts**
Department Chair: **Ms. Carole Anderson, ROOM CY-222**
(213) 763-3642, AndersCL@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Fashion Merchandising	A.S.	Plan B	45	-	45
Fashion Merchandising	C		45	-	45
At least 60 degree applicable units (45 total major units and Plan B units) are required to earn an Associate degree. For additional related degrees and certificates, refer to programs under Fashion and Tailoring.					

PROGRAM OVERVIEW

Fashion Merchandising is the-planning, organization, and development of fashion products to be sold at a profit. The program at LATTC is unique in that it offers instruction covering both manufacturing processes and retail expertise. Computer technology plays an important role in the program offering instruction on AIMS software.

Retail is a major industry in Southern California and fashion constitutes one of its largest segments. Retail positions range from major department stores to specialty outlets, and from personal stylists to employment in wholesale manufacturing. Los Angeles has taken the lead as the largest apparel manufacturing center in the United States, and the Fashion Merchandising curriculum is designed to provide specialized training in fashion trends, and consumer demand, as well as wholesale concepts.

Upon completion of the program, students will understand the cultural aspects of fashion in history, entrepreneurial opportunities in the fashion industry, and how to communicate the latest fashion trends and styling. Students will also be proficient in international business processes preparing them for the global apparel market.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Demonstrate the merchandising and promotion of apparel products according to industry standards.
- Assessment: Students will create merchandised presentations using various methods such as grid displays, presentation boards and digital graphics, that demonstrate merchandising and promotional techniques used in the industry.
- Develop and communicate a retail or wholesale business opportunity using industry standard analytical, visual, and technical tools.
- Assessment: Students will use word processing, spreadsheets, databases, and presentation graphics to articulate a thorough and cohesive product sales strategy.

FASHION MERCHANDISING

Associate in Sciences Degree

Major Units: 45

Requirements for the Associate in Sciences degree in Fashion Merchandising may be met by completing 45 units of Required Courses with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

SEMESTER I		UNITS
FASHMER 010	Retail Merchandising	3
FASHMER 025	Fashion and Industry Interchange	3
FASHMER 021	Cultural Perspectives of Dress	3
CAOT 082	Microcomputer Software Survey in the Office	3
-or- CO INFO 701	*Introduction to Computers & Their Uses (3)*	

SEMESTER II		UNITS
FASHMER 020	Apparel Product Development	3
FASHMER 035	Fashion Promotion	3
FASHMER 040	Modern Merchandising Math	3
CAOT 085	Microcomputer Office Application: Spreadsheet	3
-or- CAOT 084	*Microcomputer Office Applications: Word Processing (3)*	
-or- BUS 001	*Introduction to Business (3)*	

SEMESTER III		UNITS
FASHMER 030	Wholesale Merchandising	3
FASHMER 050	International Fashion Business	3
FASHDSN 244	Computer Fashion Art	2
-or- VISCOM 129	*Digital Photo Manipulation (2)*	
-or- FASHDSN 270	*Illustrator for Fashion Design (2)*	
COMM 101	Public Speaking	3

SEMESTER IV		UNITS
FASHMER 001	Entrepreneurial Fashion	3
FASHMER 027	Advanced Retail Merchandising	3
-or- FASHMER 041	*Fashion Merchandise Buying (3)*	
FASHMER 941	Cooperative Education – Fashion Merchandising	4

FASHION MERCHANDISING

Certificate of Achievement

Major Units: 45

Requirements for the Certificate of Achievement in Fashion Merchandising may be met by completing 45 units of Required Courses with a "C" or better .

SEMESTER I		UNITS
FASHMER 010	Retail Merchandising	3
FASHMER 025	Fashion Industry Interchange	3
FASHMER 021	Cultural Perspectives of Dress	3
CAOT 082	Microcomputer Software Survey in the Office	3
-or- CO INFO 701	*Introduction to Computers & Their Uses (3)*	

SEMESTER II		UNITS
FASHMER 020	Apparel Product Development	3
FASHMER 035	Fashion Promotion	3
FASHMER 040	Modern Merchandising Math	3
CAOT 085	Microcomputer Office Application: Spreadsheet	3
-or- CAOT 084	*Microcomputer Office Applications: Word Processing (3)*	
-or- BUS 001	*Introduction to Business (3)*	

SEMESTER III		UNITS
FASHMER 030	Wholesale Merchandising	3
FASHMER 050	International Fashion Business	3
FASHDSN 244	Computer Fashion Art	2
-or- VISCOM 129	*Digital Photo Manipulation (Photoshop) (2)*	
-or- FASHDSN 270	*Illustrator for Fashion Design (2)*	
COMM 101	Public Speaking	3

SEMESTER IV		UNITS
FASHMER 001	Entrepreneurial Fashion	3
FASHMER 027	Advanced Retail Merchandising	3
-or- FASHMER 041	*Fashion Merchandise Buying (3)*	
FASHMER 941	Cooperative Education – Fashion Merchandising	4

HYBRID & ELECTRIC PLUG-IN VEHICLE TECHNOLOGY

Department: **Advanced Transportation & Manufacturing**
Department Chair: **Mr. Jess Guerra, Room F-212E**
(213) 763-3919, GuerraJ@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Hybrid & Plug-in Electric Vehicle Technology	C		12	-	12

PROGRAM OVERVIEW

The courses listed in this certificate compile a comprehensive list of job related skills needed to acquire hybrid and electric plug-in vehicle maintenance and repair technical skills. They cover basic, intermediate and advanced level training of these vehicles including the different configurations used in the automotive, transit and trucking industries. These skills will prepare an individual for entry-level employment or career advancement in the maintenance and repair of hybrid vehicles in all sectors of the transportation industry.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the Certificate program, students are able to:

- Identify alternative fuel and hybrid vehicles and explain their operation and related safety repair procedures.
- Safely remove and replace various hybrid and plug-in electric vehicle components using specialty tools and equipment according to manufacturer and industry safety guidelines.
- Perform complex hybrid and plug-in electric vehicle troubleshooting using manufacturer diagnostic software, schematics, and specialty tools designed for hybrid and electric vehicle repair.

HYBRID & ELECTRIC PLUG-IN VEHICLE TECHNOLOGY

Certificate of Achievement

Major Units: 12

A Certificate of Achievement in Hybrid and Plug-in Electric Vehicle Technology may be earned by completing 12 units of Required Courses with a "C" or better in each course.

REQUIRED COURSES

		UNITS
DIESLTK 301	Introduction to Alternative Fuels & Hybrid Vehicle Technology	1
DIESLTK 302	Hybrid and Plug-in Electric Vehicle	6
DIESLTK 303	Advanced Hybrid and Plug-in Electric Vehicles	5

NOTE: Students are required to provide basic hand tools, Transportation Technology uniform and personal safety equipment.

KINESIOLOGY

Department: **Health and Excercise Sciences**
Department Chair: **Joseph Ratcliff**
(213) 763-3730, RatcliJE@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Kinesiology	A.A.-T	CSU/ IGETC	20-23		20-23

PROGRAM OVERVIEW

The Associate in Arts in Kinesiology for Transfer (AA-T) program is designed to prepare students for CSU transfer to complete a bachelor's degree in Kinesiology, Exercise Science, Physical Education, pre-Physical Therapy, Athletic Training and other related allied health professions. Interested students may also pursue careers as personal trainers.

Students completing the AA-T in Kinesiology are guaranteed admission to the California State University system, although not necessarily to a particular campus or major of choice. Students should consult with a counselor for more information on university admission and transfer requirements as this AA-T in Kinesiology degree may not be the best option for students intending to transfer to a particular CSU campus or to a college or university that is not part of the CSU system.

The Associate in Arts in Kinesiology for Transfer (AA-T) degree will be awarded upon completion of the following:

- Completion of 60 transferable semester units to the California State University
- Obtainment of a minimum grade point average of 2.0 in all transferable coursework.
- Full completion of one the following General education patterns

- The Intersegmental General Education Transfer Curriculum (IGETC), with "C"s or better in all coursework AND completion of Area 1C Oral communication (CSU admission requirement)
- California State University General Education – Breadth Requirements (CSU GE). Areas A1, A2, A3, & B4 must be completed with a grade of "C" or better (CSU admission requirement)
- A minimum of 20 semester units required for the major
- All courses in the major must be completed with a grade of "C" or better or a "P" if the course is taken on a "Pass-No Pass" basis (Title 5 § 55063).

NOTE: Up to 6 units may be completed outside of LATTC. However those courses must be C-ID approved for the major on that campus. Check with a counselor or www.ASSIST.org

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree** program, students are able to:

- Students will obtain the skills, knowledge and class preparation to graduate with an AA-T and enter a CSU school and pursue further education and a career in Kinesiology.
- Students will have the opportunity to obtain skills certificates in fields of Kinesiology that will provide them with job skills to work.

KINESIOLOGY FOR TRANSFER (AA-T)

Associate in Arts for Transfer Degree

Major Units: 20-23

Requirements for the Associate in Arts degree in Kinesiology for Transfer (AA-T) may be met by completing 20-23 units of coursework with a "C" or better along with general education courses meeting IGETC and CSU Requirements.

REQUIRED CORE (11 UNITS):

		UNITS
KIN MAJ 100	Introduction to Kinesiology	3
ANATOMY 001	Introduction to Human Anatomy	4
PHYSIOLOGY 001	Introduction to Human Physiology	4

AND

Movement Based Courses (3 Units). Take a minimum of one unit from any three of the following five categories: Aquatics, Fitness, and Team Sports

AQUATICS

KIN 300-1	Swimming / Non-Swimmer I	1
KIN 303-1	Aqua Aerobics I	1

FITNESS

KIN 329-1	Body Conditioning I	1
KIN 350-1	Weight Training I	1

TEAM SPORTS

KIN 387	Basketball	1

RESTRICTED ELECTIVES. Select courses (minimum 6 units) from the following (6-9 units total units):

MATH 225	Introductory Statistics	3
-or- MATH 227	*Statistics (4)*	
CHEM 051	Fundamentals of Chemistry I	5
-or- CHEM 101	*General Chemistry I (5)*	
PHYSICS 006	General Physics I	4
KIN MAJ 101	First Aid and CPR	3
-or- HEALTH 0d12	*Safety Education and First Aid (3)*	

MAJOR REQUIRED MINIMUM SUBTOTAL	**20 units**
CSU or IGETC for CSU GE Pattern	**37-39 units**
CSU Transferable Elective units	**(as needed to reach 60 units)**
TOTAL CSU transferrable units	**60 units**

LABOR STUDIES

Department: **Labor Studies**
Department Chair: **John McDowell, Room MA-005**
213-763-7129, LaborCenter@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Labor Studies	A.A.	Plan B	18	18	36
Labor Studies	C		15	9	24
At least 60 degree applicable units (36 total major units and Plan B units) are required to earn an Associate degree.					

The Labor Center

The Labor Center, located in MA-005, offers Labor Studies classes leading to an Associate in Arts Degree or Certificate of Achievement in Labor Studies. Classes and programs are held both on campus and off site at union halls and community organizations. Students can register online, on site in class or at the Labor Center Office.

The Labor Center maintains strong relationships with leaders of organized labor and the community, including a broad based Advisory Board. These leaders help promote participation in the Labor Studies program, and assure evaluation and feedback from the labor movement to help shape future programs. The Labor Center staff also advise Labor Studies students and prospective students, and the Center maintains a collection of labor DVDs available for free loan.

PROGRAM OVERVIEW

Labor Studies is designed to train students, union leaders, human relations professionals, and workers in the practical, applied skills and up-to-date knowledge of labor relations and for positions in union leadership. Employees in labor and human relations can develop career skills and prepare for positions or advancement in labor unions, labor relations, human relations and government. The instructors are all experts who are active in the field.

The Labor Studies Program offers the following alternative patterns of learning:

- courses may be completed as desired to develop specific skills to meet the needs of the individual student;
- courses may be completed to meet the requirements of the Associate Degree;
- courses may be completed to meet the 24 units required to earn the Certificate of Achievement in Labor Studies.

By fulfilling the program requirements, students will have a greater understanding of the contributions of labor and the necessary skills for union leadership. This is particularly applicable to Los Angeles, with over 300 local unions with a combined membership approaching 800,000 union members. Students who complete the requirements for the Associate Degree in Labor Studies will have a working knowledge of labor organizations, their structure, philosophy and day to day operation.

LABOR STUDIES

Associate in Arts Degree

Major Units: 36

Requirements for the Associate in Arts degree in Labor Studies may be met by completing 36 units in Labor Studies, of which a minimum of 18 units must be Required Courses with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree** program, students are able to:

- Students will have a working knowledge of the collective bargaining process and demonstrate the skills needed to bargain and enforce a contract.
- Students will demonstrate knowledge of labor relations laws and other laws protecting workers' rights.
- Use effective communication, mobilizing and leadership skills to organize, build and strengthen unions.

REQUIRED COURSES

A.A. DEGREE: Select at least 18 units from Required Courses
CERTIFICATE: Select at least 15 units from Required Courses

		UNITS
LABR ST 001	U.S. Labor History	3
LABR ST 002	Collective Bargaining	3
LABR ST 003	Labor Relations Law	3
LABR ST 004	Labor in America	3
LABR ST 005	Grievance and Arbitration	3
LABR ST 006	Labor and Community Services	3
LABR ST 007	Labor and Political Action	3
LABR ST 009	Union Organizing Strategies	3
LABR ST 010 †	Gender and Race Issues in the Workplace	3
LABR ST 011	Labor in the Public Sector	3
LABR ST 012	Building Strong Unions	3
LABR ST 013	Union Leadership	3
LABR ST 020	Workers Rights	3
LABR ST 021	The Working Class in Cinema	3

NOTE: Addttional Labor Studies courses may be used to fulfill Required Courses For additional information, contact the Labor Center.

MAJOR ELECTIVES

A.A. DEGREE: May select up to 18 units from the courses below
CERTIFICATE: May select up to 9 units from the courses below

		UNITS
LABR ST 101	Introduction to Unions	1
LABR ST 102	Contract Negotiations Skills	1
LABR ST 103	Labor Law Update	1
LABR ST 104	Current Issues for Labor	1
LABR ST 105	Grievance Handling Skills	1
LABR ST 106	Labor and Disaster Relief	1
LABR ST 107	Organizing for Political Action	1
LABR ST 108	Labor and Globalization	1
LABR ST 109	Union Building Strategies	1
LABR ST 113	Union Leadership Skills	1
LABR ST 114	Workers' Legal Rights	1
LABR ST 115	Workplace Health and Safety	1
LABR ST 116	New Strategies for Labor	1
LABR ST 118	Employee Benefit Plans	1
LABR ST 120	Union Issues for Women Workers	1
LABR ST 121	Labor Communications	1
LABR ST 122	Framing the Message for Labor	1
LABR ST 123	Steward Training	1
LABR ST 125	Labor Arbitration	1
LABR ST 126	Issues in Labor Arbitration	1
LABR ST 127	Worker's Compensation	1
LABR ST 128	Sexual Harassment and Discrimination	1
LABR ST 132	Strategic Bargaining	1
LABR ST 134	California Workers' Rights	1
LABR ST 136	When the Paycheck Stops	1

NOTE: A maximum of 3 units of COOP ED may be applied to meet the 36 units AA Degree requirement in Labor Studies.

LABOR STUDIES

Certificate of Achievement

Major Units: 24

A Certificate of Achievement in Labor Studies may be earned by completing 24 units in Labor Studies, of which a minimum of 15 units must be in Required Courses with a "C" or better in each course.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

- Students will have a working knowledge of the collective bargaining process and demonstrate the skills needed to bargain and enforce a contract.
- Students will demonstrate knowledge of labor relations laws.
- Use effective communication to mobilize members.

Students who complete the requirements for the Certificate of Achievement in Labor Studies will have developed practical skills in representation, negotiations, advocacy, and problem solving at the workplace.

† Course currently unavailable

Students who earn a Certificate will be qualified for entry level positions in labor, industry, and government.

A maximum of 3 units of COOP ED may be applied to meet the 24 units Certificate requirement in Labor Studies.

NOTE: A maximum of 3 units of COOP ED may be applied to meet the 24 units Certificate requirement in Labor Studies.
Additional Labor Studies courses may be used to fulfill total major units.
For additional information, contact the Labor Center.

LIBERAL ARTS AND SCIENCES

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Interdisciplinary Studies: Arts and Sciences	A.A.	Plan B	33	16	49
Liberal Arts and Sciences: Natural Sciences	A.A.	Plan A	-	18	18
At least 60 degree applicable units (total major units and graduation plan units) are required to earn an Associate degree.					

PROGRAM OVERVIEW

Students planning to transfer to a four-year college or university may choose the Associate in Arts degree with a major in Liberal Arts and Sciences by choosing one of the options listed below.

The Liberal Arts degree is designed for students who desire a broad base of knowledge in the liberal arts and sciences. The Liberal Arts degree is one option for students who plan to transfer to a four-year university, including the California State University (CSU) or the University of California (UC).

Select one of the options for the General Education Requirement

OPTION 1: LATTC Graduation Plan A or Plan B depending upon the degree selection

OPTION 2: Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth)

OPTION 3: Intersegment General Education Transfer Curriculum (IGETC) pattern IGETC

NOTE: Students need to complete additional units to meet the required 60 units for the Associate of Arts degree.

Students should be aware that not all courses on this list are offered every semester.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the Degree program, students are able to:

- Utilize their broad and well balanced educational experience in the area of arts, and sciences to transfer to a 4-year college or university.
- Think and communicate clearly and effectively both orally and in writing.
- Use mathematics.
- Understand the modes of inquiry of the major disciplines.
- Be aware of other cultures and times.
- Achieve insights gained through experience in thinking about ethical problems.
- Develop the capacity for self-understanding.
- Possess sufficient depth in some field of knowledge to contribute to lifetime interest.

INTERDISCIPLINARY STUDIES: ARTS AND SCIENCES

Associate in Arts Degree

Major Units: 49

Requirements for the Associate in Arts degree in Interdisciplinary Studies may be met by completing 33 units of Required Courses and 16 units of Major Electives with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

Students planning for transfer are cautioned that this curriculum may not provide for the completion of lower division requirements for transfer. Students should consult with a counselor for specific information regarding an intended major if transfer to a four-year university is a goal.

REQUIRED COURSES

		UNITS
ENGLISH 101	College Reading and Composition I	3
ENGLISH 102	College Reading and Composition II	3
ENGLISH 103	Composition and Critical Thinking	3
COMM 101	Public Speaking	3
MATH 125	Intermediate Algebra	5
BIOLOGY 003	Introduction to Biology	4
GEOLOGY 001	Physical Geology	3
HISTORY 011	Political and Social History of the United States I	3
HISTORY 086	Introduction to World Civilization I	3
POL SCI 001	The Government of the United States I	3

CORE ELECTIVE COURSES:

MINIMUM REQUIRED 16 UNITS

Complete at least one course from each area plus any additional elective units to meet the 49 unit requirement.

LANGUAGE ARTS AND CRITICAL REASONING 3 UNITS

Select at least 3 units from the following:

ENGLISH 203	World Literature I	3
ENGLISH 205	English Literature I	3
PHILOS 008	Deductive Logic	3
CO INFO 701	Introduction to Computers and Their Uses	3

MATHEMATICS & NATURAL SCIENCE		3 UNITS
Select at least one course:		
ANTHRO 102	Human Ways of Life: Cultural Anthropology	3
MATH 215	Principles of Mathematics I	3
MATH 225	Introductory Statistics	3
- or MATH 227	*Statistics*	*4*
MATH 235	Finite Mathematics	5
MATH 236	Calculus for Business and Social Sciences	5
MATH 240	Trigonometry	3
MATH 245	College Algebra	3
MATH 260	Pre Calculus	5
MATH 265	Calculus with Analytic Geometry I	5
MATH 266	Calculus with Analytic Geometry II	5
MATH 267	Calculus with Analytic Geometry III	5
MATH 270	Linear Algebra	3
MATH 275	Ordinary Differential Equations	3
ASTRON 001	Elementary Astronomy	3
ASTRON 005	Fundamentals of Astronomy Laboratory	1
ENV SCI 001	The Human Environment: Physical Processes	3
GEOG 001	Physical Geography	3
GEOLOGY 006	Physical Geology Laboratory	2
PHYSICS 011	Introductory Physics	4
PHYSICS 012	Physics Fundamentals	3

ARTS & HUMANITIES		3 UNITS
Select at least 3 units from the following:		
A S L 001	American Sign Language I	4
A S L 002	American Sign Language II	4
ART 101	Survey of Art History I	3
ART 103	Art Appreciation I	3
FRENCH 001	Elementary French I	5
FRENCH 002	Elementary French II	5
MUSIC 111 †	Music Appreciation I	3
PHILOS 001	Introduction to Philosophy	3
SPANISH 001	Elementary Spanish I	5
SPANISH 002	Elementary Spanish II	5
SPANISH 035	Spanish for Spanish Speakers I	5
SPANISH 036	Spanish for Spanish Speakers II	5
THEATER 100	Introduction to the Theater	3

SOCIAL SCIENCE		3 UNITS
Select at least 3 units from the following:		
CH DEV 001	Child Growth and Development	3
GEOG 002	Cultural Elements of Geography	3
HISTORY 012	Political and social history of the United States II	3
HISTORY 087	Introduction to World Civilizations II	3
PSYCH 001	General Psychology I	3
ANTHRO 101	Human Biological Evolution	3
SOC 001	Introduction to Sociology	3

† Course currently unavailable

LIBERAL ARTS AND SCIENCES: NATURAL SCIENCES

Associate in Arts Degree

Major Units: 18

Requirements for the Associate in Arts degree in Liberal Arts and Sciences: Natural Sciences may be met by completing 18 units of Required Courses with a "C" or better along with general education courses meeting Plan A graduation requirements. Information on the Plan A requirements may be found in the catalog under Graduation/Transfer Requirements.

This area of emphasis examines the physical universe, its life forms, and its natural phenomena. Emphasis is place on students using the methodologies of science as an investigative tool. The Natural Sciences area of emphasis allows the students to take courses that MAY satisfy lower-division requirements with the fields of science including Biology, Chemistry, Allied Health fields, Nursing preparation, Health Science and related fields, Kinesiology, Pre-Med, Dental Hygiene and more.

Students planning for transfer are cautioned that this curriculum may not provide for the completion of lower division requirements for transfer. Students should consult with a counselor for specific information regarding an intended major if transferring to a four-year university is a goal.

Degree Requirements in Natural Sciences:

- Complete 18 units of coursework from courses listed below.
- At least one science course have a lab.

REQUIRED COURSES

		UNITS
ANATOMY 001	Introduction to Human Anatomy	4
ANTHRO 101	Human Biological Evolution	3
ASTRON 001	Elementary Astronomy	3
ASTRON 002 †	Elementary Astronomy Lab	1
ASTRON 005	Fundamentals of Astronomy Lab	1
BIOLOGY 003	Introduction to Biology	4
BIOLOGY 006	General Biology I	5
BIOLOGY 007	General Biology II	5
BIOLOGY 036 †	Bioscience for Health Occupations	4
CHEM 051	Fundamentals of Chemistry	5
CHEM 065	Introductory General Chemistry	4
CHEM 070	Introductory Organic and Biochemistry	4
CHEM 101	General Chemistry I	5
CHEM 102	General Chemistry II	5
CHEM 211	Organic Chemistry for Science Majors I	5
CHEM 212	Organic Chemistry for Science Majors II	5
CHEM 221	Biochemistry for Science Majors	5
CHEM T 111	Applied Chemistry I	5
CHEM T 121	Applied Chemistry II	5
ELECTRN 002	Introduction to Electronics	3
ENV SCI 001	The Human Environment: Physical Processes	3
GEOG 001	Physical Geography	3
GEOLOGY 001	Physical Geology	3
GEOLOGY 006	Physical Geology Laboratory	2
MICRO 001	Introductory Microbiology	5
MICRO 020	General Microbiology	4
PHYSIOL 001	Introduction to Human Physiology	4
PHYSICS 001	Mechanics of Solids	4

PHYSICS 002	Mechanics of Fluids, Heat, and Sound	4
PHYSICS 003	Electricity and magnetism	4
PHYSICS 004	Optics and Modern Physics	4
PHYSICS 006	General Physics I	4
PHYSICS 007	General Physics II	4
PHYSICS 012	Physics Fundamentals	3
PHYSICS 014	Physics Fundamentals Laboratory	1
PSYCH 002	Biological Psychology	3

NOTE: Lab courses for ASTRON 5 and GEOLOGY 6 cannot apply in this area unless the lecture courses that are prerequisite or co-requisite to the lab courses are also taken.

TRANSFER—Students interested in transferring to a four-year college or university should visit the University Transfer Center or meet with a counselor to select appropriate transferable courses.

MACHINE SHOP: CNC

Department: **Advanced Transportation & Manufacturing**
Department Chair: **Mr. Jess Guerra, Room F-212E**
(213) 763-3919, GuerraJ@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Machine Shop CNC	A.S.	Plan B	48	-	48
Machine Shop CNC	C		48	-	48
At least 60 degree applicable units (48 total major units and Plan B units) are required to earn an Associate degree.					

PROGRAM OVERVIEW

LATTC offers an Associate in Science degree in Machine Shop CNC as well as a Certificate of Achievement.

The Associate in Science degree and Certificate of Achievement, is designed for individuals seeking entry level positions in the field. Students enrolling in this program should be able to commit to full-time student status, which is approximately 21 hours per week. This time commitment is necessary to allow for hands-on training in the lab applications used during the course of instruction.

By fulfilling the program requirements, students will have the necessary knowledge and skills for a career in the Machining Industry. Students will properly use related terminology, safely set-up and operate numerous conventional and computer numerically controlled (CNC) machine tools, use computers to program various CNC machines directly or with Computer Assisted Machinery (CAM), and interpret most related parts and assembly drawings. The general education component classes will give the student a well rounded education and provide knowledge and skills to assist in successful participation in all aspects of society.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the Degree/Certificate program, students are able to:

- Demonstrate the correct use of machine tools, such as lathes, milling machines, and machining centers, to produce machined products that meet precise specifications.
- Demonstrate knowledge of the working properties of metals in the production of precision metal parts.
- Program computer numerically controlled (CNC) machines to perform all of the necessary cuts to create a part.

MACHINE SHOP: CNC

Associate in Science Degree

Major Units: 48 units

Requirements for the Associate in Science degree in Machine Shop CNC may be met by completing 48 units of Required Courses with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/ Transfer Requirements.

SEMESTER I		UNITS
MSCNC 111	Principles of Machine Tools I	2
MSCNC 112A	Technology and Application of Machining IA	3
MSCNC 112B	Technology and Application of Machining (CAD) IB	1
MSCNC 114	Print Interpretation and Sketching (Blueprint I)	3
MSCNC 115	Basic Applied Mathematical Calculations	3

SEMESTER II		UNITS
MSCNC 121	Principles of Machine Tools II	2
MSCNC 122A	Technology and Application of Machining IIA	3
MSCNC 122B	Technology and Application of Machining IIB	1
MSCNC 124	Print Interpretation and Inspection (Blueprint II)	3
MSCNC 125	Intermediate Applied Mathematical Calculations	3

SEMESTER III		UNITS
MSCNC 131A	Principles of Machine Tools IIIA	2
MSCNC 131B	Principles of Machine Tools (CNC) IIIB	3
MSCNC 132A	Technology and Application of Machining IIIA	3
MSCNC 132B	Technology and Application of Machining (CAM) IIIB	1
MSCNC 135	Advanced Applied Mathematical Calculations	3

SEMESTER IV		UNITS
MSCNC 141	Principles of Machine Tools (CNC) IV	2
MSCNC 142A	Technology and Application of Machining IVA	3
MSCNC 142B	Technology and Application of Machining IVB	1
MSCNC 161A	Computer Assisted Machine Programming (CAM) IA	3
MSCNC 161B	Computer Assisted Machine Programming (CAM) IB	3

MACHINE SHOP: CNC

Certificate of Achievement
Major Units: 48

A Certificate of Achievement in Machine Shop CNC may be earned by completing 48 units of Required Courses listed under for the Associate degree in Machine Shop with a "C" or better in each course.

MANAGEMENT/ SUPERVISION

Department: **Business and Entrepreneurial Related Programs**
Department Chair: **Benjamin Goldstein, JH-523**
213-763-7051, GoldstBD@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Management/Supervision	A.A.	Plan B	47	-	47
Management/Supervision	C		33	-	33
At least 60 degree applicable units (47 total major units and Plan B units) are required to earn an Associate degree.					

MANAGEMENT/SUPERVISION

Associate in Arts Degree
Major Units: 47 units

PROGRAM OVERVIEW

The Management/Supervision program is designed to prepare students for managerial responsibilities in business by studying both fundamentals of business operations and human relations. This program will add basic management/ supervisory skills to their current occupation or technical skills they may already possess. Course work will cover the basic business management skills with emphasis on human relations, leadership, written and oral communications that relates to managerial/supervisory positions. Graduates of this program should be able to improve one's promotability and will be eligible for jobs as assistant managers, management trainees, supervisors, team leaders, first line managers and a wide range of other entry level positions. Non managers/supervisors will also increase their knowledge of basic business functions and enhance their current job performance.

By fulfilling the program requirements, students will increase their abilities to negotiate successfully, build and manage teams, manage projects, resolve conflicts, communicate and motivate teams to achieving departmental and organizational success. Students will also understand and will be able to apply management/supervision concepts in real world situations whether they are in business for themselves or working within government, private or non profit industries.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Apply project management skills through the use of appropriate technology to implement, track and manage data reporting.
- Implement organizational policies and procedures for recruiting, interviewing, orienting, training and assessing performance.
- Apply leadership theories and skills to create a supportive and ethical work environment.
- Facilitate the management of change, conflict, and diversity in an organization.
- Demonstrate effective facilitation skills to systematically solve problems while building a team environment.
- Ensure compliance with federal, state and local laws that pertain to businesses and organizations.
- Apply continuous improvement strategies to processes and systems to maximize productivity and quality.
- Employ effective speaking, listening coaching, assertiveness, and time and stress management skills.
- Utilize critical thinking to bridge conceptual ideas into practice.

REQUIRED COURSES

SEMESTER I		UNITS
BUS 001	Introduction to Business	3
BUS 032	Business Communications	3
-or- *BUS 033*	*Technical Report Writing (3)*	
BUS 038	Business Computations	3
CAOT 082	Microcomputer Software Survey in the Office	3
SUPV 011	Oral Communications	3

SEMESTER II		UNITS
ACCTG 001	Introductory Accounting I	5
ECON 002	Principle of Economics II	3
SUPV 001	Elements of Supervision	3
MARKET 021	Principles of Marketing	3

SEMESTER III		UNITS
BUS 005	Business Law I	3
MGMT 002	Organization and Management Theory	3
BUS 040	Business Project Management	3
SUPV 003	Human Relations (Developing Supervisory Leadership)	3

SEMESTER IV		UNITS
MGMT 013	Small Business Entrepreneurship	3
MGMT 033	Personnel Management	3

MANAGEMENT/SUPERVISION

Certificate of Achievement
Major Units: 33

The Management/Supervision program is designed to prepare students for managerial responsibilities in business by studying both fundamentals of business operations and human relations.

This program will add basic management/supervisory skills to their current occupation or technical skills they may already possess. Course work will cover the basic business management skills with emphasis on human relations, leadership, written and oral communications that relates to managerial/

supervisory positions. Graduates of this program should be able to improve one's promotability and will be eligible for jobs as assistant managers, management trainees, supervisors, team leaders, first line managers and a wide range of other entry level positions. Non managers/supervisors will also increase their knowledge of basic business functions and enhance their current job performance.

By fulfilling the program requirements, students will increase their abilities to negotiate successfully, build and manage teams, manage projects, resolve conflicts, communicate and motivate teams to achieving departmental and organizational success. Students will also understand and will be able to apply management/supervision concepts in real world situations whether they are self employed or working within government, private or non profit industries.

REQUIRED COURSES

SEMESTER I		UNITS
BUS 001	Introduction to Business	3
BUS 005	Business Law I	3
BUS 032	Business Communications	3
-or- *BUS 033*	*Technical Report Writing (3)*	
CAOT 082	Microcomputer Software Survey in the Office	3
MGMT 002	Organization and Management Theory	3

SEMESTER II		UNITS
ACCTG 021	Bookkeeping and Accounting I	3
MGMT 033	Personnel Management	3
MARKET 021	Principles of Marketing	3
CAOT 085	Microcomputer Office Applications: Spreadsheet	3
SUPV 003	Human Relations (Developing Supervisory Leadership)	3
SUPV 011	Oral Communications	3

MARKETING AND PUBLIC RELATIONS

Department: **Business and Entrepreneurial Related Programs**
Department Chair: **Benjamin Goldstein, JH-523**
213-763-7051, GoldstBD@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Marketing and Public Relations	A.A.	Plan B	44	-	44
Marketing and Public Relations	C		33	-	33
At least 60 degree applicable units (44 total major units and Plan B units) are required to earn an Associate degree.					

MARKETING AND PUBLIC RELATIONS

Associates in Arts Degree

Major Units: 44

Department: **Business and Entrepreneurial Related Programs**
Department Chair: **Benjamin Goldstein, JH-523**
213-763-7051, GoldstBD@lattc.edu

A Certificate of Achievement in Marketing and Public Relations may be earned by completing 33 units of Required Courses with a "C" or better in each course.



The program is designed to insure all students master all aspects of marketing and public relations, which include advertising, branding, and corporate communications. Students will study and evaluate the effectiveness and appropriateness of marketing and public relations messages while engaging in problem analysis, strategic planning, message development, and tactical solutions. Using both traditional and digital media students will be able to implement compelling marketing campaigns that reach customers and consumers in new and innovative ways, grow market share, and increase bottom line results.

By fulfilling the program requirements, students will have a background in the principles and practices involved in the promotion and distribution of products and services from producers through middleman to the ultimate consumer. This program leads to entry level positions in public relations and marketing careers in business, industry, agency, government, and nonprofit sectors of society. Typical jobs includes, marketing director, public relations representative, corporate consultant, political campaign advisor, small business owner, marketing and non profit communications consultants.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Develop a marketing plan for a business using fundamental marketing theories and principles.
- Design, implement and evaluate a marketing/public relations campaign.
- Apply marketing research principles to a company's product or service.
- Write for internal and external publications with an understanding of the needs of the target audiences.
- Apply basic graphic design principles to newsletters, brochures, reports, and related PR projects.
- Serve as an effective spokesperson for an organization or business.
- Apply ethical principles to decision making and crisis management.
- Explain the role of the public relations practitioner within the context of mass communication.
- Describe the effects of print and broadcast media on the practice of public relations.
- Apply advertising principles to promote a firm's image and product/service offering.
- Apply basic graphic design principles when promoting a company's products or services.

REQUIRED COURSES

The following is a suggested sequence of Required Courses to be taken:

SEMESTER I		UNITS
BUS 001	Introduction to Business	3
BUS 032 ***-or-*** *BUS 033*	Business Communications *Technical Report Writing (3)*	3
BUS 038	Business Computations	3
CAOT 082	Microcomputer Software Survey in the Office	3
SUPV 011	Oral Communications	3

SEMESTER II		UNITS
ACCTG 001	Introductory Accounting I	5
ECON 002	Principle of Economics II	3
MARKET 001	Principles of Selling	3
PUB REL 001	Principles of Public Relations	3

SEMESTER III		UNITS
BUS 005	Business Law I	3
MARKET 021	Principles of Marketing	3
PUB REL 002	Public Relations Techniques	3

SEMESTER IV		UNITS
MARKET 011	Fundamentals of Advertising	3
PUB REL 003	Writing for Public Relations	3

MARKETING AND PUBLIC RELATIONS

Certificate of Achievement

Major Units: 33

The program is designed to insure all students master all aspects of marketing and public relations, which include advertising, branding, and corporate communications. Students will study and evaluate the effectiveness and appropriateness of marketing and public relations messages while engaging in problem analysis, strategic planning, message development, and tactical solutions. Using both traditional and digital media students will be able to implement compelling marketing campaigns that reach customers and consumers in new and innovative ways, grow market share, and increase bottom line results.

By fulfilling the program requirements, students will have a background in the principles and practices involved in the promotion and distribution of products and services from producers through middleman to the ultimate consumer. This program leads to entry level positions in public relations and marketing careers in business, industry, agency, government, and nonprofit sectors of society. Typical jobs includes, marketing director, public relations representative, corporate consultant, political campaign advisor, small business owner, marketing and non profit communications consultants.

A Certificate of Achievement in Marketing and Public Relations may be earned by completing 33 units of Required Courses with a "C" or better in each course.

REQUIRED COURSES

SEMESTER I		UNITS
BUS 001	Introduction Business	3
BUS 005	Business Law I	3
BUS 032 ***-or-*** *BUS 033*	Business Communications *Technical Report Writing (3)*	3
BUS 038	Business Computations	3
CAOT 082	Microcomputer Software Survey in the Office	3
SUPV 011	Oral Communications	3

SEMESTER II		UNITS
MARKET 001	Principles of Selling	3
MARKET 011	Fundamentals of Advertising	3
MARKET 021	Principles of Marketing	3
PUB REL 001	Principles of Public Relations	3
PUB REL 002	Public Relations Techniques	3

MATHEMATICS

Department: Mathematics
Department Chair: Ms. Tayebeh Meftagh, Room AH-506
(213) 763-7319, MeftagT@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Mathematics (Transfer)	AST	CSU GE/ IGETC	15	6-7	21-22
22 total major units and Plan B units are required to earn an Associate degree.					

PROGRAM OVERVIEW

The Associate in Science in Mathematics for Transfer prepares a student for transfer into the CSU system for further study in pure or applied mathematics. Earning a 4-year degree in mathematics prepares students for careers in which mathematical skills are in great demand, such as science, technology, engineering, computer science, business, industry, medicine, education or government. The goal of this degree is to provide a clear pathway for transfer students applying to the California State University (CSU). Completion of the Associate in Science in Mathematics for Transfer (AST) ensures transfer students will complete the lower division general education requirements as well as the articulated lower division major requirements for the bachelor's degree in Mathematics prior to transferring.

The Associate in Science in Mathematics for Transfer (AS-T) degree will be awarded upon completion of the following.

- Completion of 60 transferable semester units to the California State University
- Obtainment of a minimum grade point average of 2.0 in all transferable coursework.
- Full completion of one the following General education patterns
- The Intersegmental General Education Transfer Curriculum (IGETC), with "C"s or better in all coursework AND completion of Area 1C Oral communication (CSU admission requirement)
- California State University General Education – Breadth Requirements (CSU GE). Areas A1, A2, A3, & B4 must be completed with a grade of "C" or better (CSU admission requirement)
- A minimum of 23 semester units required for the major
- All courses in the major must be completed with a grade of "C" or better or a "P" if the course is taken on a "Pass-No Pass" basis (Title 5 § 55063).

NOTE: Up to 6 units may be completed outside of LATTC. However those courses must be C-ID approved for the major on that campus. Check with a counselor or www.ASSIST.org

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree** program, students are able to:

- Apply the techniques of both Differential Calculus and Integral Calculus to problems involving functions of both one and several variables.
- Approach and solve problems in pure and applied Mathematics.
- Use the Calculus to solve applied problems in Mathematics, Engineering, Physics, and Statistics.
- Solve higher order constant-coefficient linear differential equations and systems of differential equations and use these methods to solve applied problems.

MAJOR REQUIRED MINIMUM SUBTOTAL	23 units
CSU or IGETC for CSU GE Pattern	37-39 units
CSU Transferable Elective units	(as needed to reach 60 units)
TOTAL CSU transferrable units	60 units

MATHEMATICS

Associate in Science for Transfer Degree
Major Units: 21-22

Requirements for the Associate in Science Transfer degree in Mathematics may be met by completing 15 units of Required Courses and 6-7 units of Major Electives with a "C" or better along with general education courses meeting IGETC and CSU Requirements.

REQUIRED COURSES

		UNITS
MATH 265	Calculus with Analytic Geometry I	5
MATH 266	Calculus with Analytic Geometry II	5
MATH 267	Calculus with Analytic Geometry III	5

MAJOR ELECTIVES

Select at least 6-7 units from the courses below		UNITS
MATH 270	Linear Algebra	3
MATH 275	Ordinary Differential Equations	3
MATH 227	Statistics	4

MICROCOMPUTER TECHNICIAN

Department: Advanced Transportation & Manufacturing
Department Chair: Mr. Jess Guerra, Room F-212E
(213) 763-3919, GuerraJ@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Microcomputer Technician	A.S.	Plan B	42	-	42
Microcomputer Technician	C		42	-	42
At least 60 degree applicable units (42 total major units and Plan B units) are required to earn an Associate degree.					

PROGRAM OVERVIEW

Students can acquire the basic skills and knowledge to earn the Microcomputer Technician Associate in Science Degree / Certificate of Achievement, in the Electronics Department. This program will not only prepare students for an award, but will also prepare them for the A+ Certification exam, and help them prepare for the Cisco Certified Networking Associate (CCNA).

By fulfilling the program requirements, students are able to format a computer, install the operating system, and install all the necessary drivers. Students will be able to successfully configure and create a network system consisting of a number of computers all for employment in a field related to microcomputer technician.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

- Install, configure, and add auxiliary equipment for a microcomputer.
- Load software and suggest programs to answer the needs of individuals and companies.
- Format a computer, install the operating system, and install all the necessary drivers.
- Configure and create a network system consisting of a number of computers.

MICROCOMPUTER TECHNICIAN

Associate in Science Degree

Major Units: 42

Requirements for the Associate in Science degree in Microcomputer Technician may be met by completing 42 units of Required Courses with a grade of "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

The Microcomputer Technician program is designed to prepare a technician to install, configure, and add auxiliary equipment for a microcomputer. The technician is also able to load software and suggest programs to answer the needs of individuals and companies. Microcomputer Technicians must be above average in knowledge of mechanical systems. They must also have interest and ability in mathematics to successfully apply the training presented in this program.

The computer industry is expanding due to the continuing drop in the price of computers and the introduction of new models with greater power. The fastest growing segment of this field is the microcomputer segment. The power and speed of these units continue to increase and, at the same time, the price continues to decrease. This has placed the computer within financial reach of many small businesses and individuals. With more systems being manufactured and installed, more technicians are needed.

REQUIRED COURSES

SEMESTER I		UNITS
ELECTRN 002	Introduction to Electronics	3
ETNTLGY 252	Networking Cabling Specialist	3
ETNTLGY 254	Computer Applications for Electronics Technology	3
MICROTK 077	Cisco Networking Academy-Semester I	3

SEMESTER II		UNITS
ETNTLGY 253	Fiber Optics	3
MICROTK 078	Cisco Networking Academy - Semester II	3
MICROTK 160	I.T. Essentials Application Software Fundamentals	2
MICROTK 162	I.T. Essentials Networking Personal Computers	4

SEMESTER II		UNITS
MICROTK 079	Cisco Networking Academy - Semester III	3
PHYSICS 011	Introductory Physics	4
MICROTK 164	I.T. Essentials Microcomputer Theory and Servicing	5

SEMESTER IV		UNITS
MICROTK 080	Cisco Networking Academy Semester 4	3
MICROTK 165	Linux Survival Course	3

MAJOR ELECTIVES

		UNITS
ETNTLGY 150	Soldering Surface Mount Technology	3
ETNTLGY 162	Introduction to Electronics Communications	3
ETNTLGY 255	Computer-Based Electronics I	1
MICROTK 166	CCNA Security	3

MICROCOMPUTER TECHNICIAN

Certificate of Achievement

Major Units: 42

A Certificate of Achievement in Microcomputer Technician may be earned by completing 42 units of Required Courses listed under for the Associate degree in Microcomputer Technician with a grade of "C" or better in each course.

This Certificate is designed for students who wish to train for employment as a microcomputer technician but do not wish to transfer to a four year university.

MOTORCYCLE REPAIR MECHANICS

Department: Advanced Transportation & Manufacturing
Department Chair: Mr. Jess Guerra, Room F-212E
(213) 763-3919, GuerraJ@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Motorcycle Repair Mechanics: Adjunct	C		16	7	23
For additional related degrees and certificates, refer to programs under Automotive Collision Repair, Automotive Technology, and Diesel and Related Technologies.					

PROGRAM OVERVIEW

The Certificate of Achievement in Motorcycle Repair is designed for both new students as well as industry professionals who want to upgrade their skills and show validation of technology training.

Courses leading to the Certificate are offered during evenings and on weekends. Upon completion of the program, students will have the skills necessary to maintain, repair, and diagnose electrical and fuel induction systems, and will be proficient in tune-up overhaul procedures and basic shop practices.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

- Diagnose and repair various models of motorcycles according to industry standards.
- Demonstrate shop safety practices when performing vehicle repairs in accordance with industry standards.

MOTORCYCLE REPAIR MECHANICS: ADJUNCT

Certificate of Achievement

Major Units: 23

A Certificate of Achievement in Motorcycle Repair Mechanics: Adjunct may be earned by completing 16 units of Required Courses and 7 units of Major Electives with a "C" or better in each course.

REQUIRED COURSES

		UNITS
MCYCMEK 210	Internal Combustion Engine Theory and Repair	4
MCYCMEK 212	Motorcycle Service and Tune-up Theory and Repair	4
MCYCMEK 214	Multi-Cylinder Electrical Principles and Repair	4
MCYCMEK 216	Multi-Cylinder Diagnosis and Overhaul	4

MAJOR ELECTIVES

Select at least 7 units from the courses below		UNITS
AUTORTK 122	Electrical/Electronic Systems Theory, Inspection & Repair	3
AUTORTK 123	Fuel & Emissions Systems Theory, Inspection & Repair	3
AUTORTK 135	Computer Control and Fuel Injection	3

NOTE: Students are required to provide basic hand tools, Transportation Technology uniform and personal safety equipment.



NURSING, REGISTERED

Department: Health and Excercise Sciences
Department Chair: Joseph Ratcliff
(213) 763-3730, RatcliJE@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Nursing, Registered	A.S.	Plan B	42	-	42
Nursing, Registered: LVN to RN Career Ladder	A.S.	Plan B	33	-	33
Nursing, Registered 30-Unit Option			33	-	33
At least 60 degree applicable units (total major units and Plan B units) are required to earn an Associate degree.					

PREREQUISITE COURSES

A GPA of 2.5 or better must be earned in all college level courses and a 2.5 grade point average in the science prerequisites.

Please note: You must be accepted into the Nursing Program before you can enroll in these classes. Once accepted enrollment will be done by the department. You cannot enroll online.

PROGRAM OVERVIEW

The Registered Nursing (RN) Program at LATTC combines nursing and general education courses with selected laboratory experiences during which students provide nursing care to clients in hospitals and other health care facilities. Nursing courses include medical surgical nursing, geriatric nursing, maternal child health nursing, pediatric nursing, psychiatric nursing, pharmacology, and nursing management and leadership and preceptorship. The program is designed to be completed within four semesters after admission.

Applicants must meet health as well as other requirements mandated by the program and affiliating hospitals/clinic prior to entry. Candidates are admitted to the program in the Fall and Spring semesters. Candidates must enter the program with a minimum overall 2.5 grade point average in all college level courses and a 2.5 grade point average in the science prerequisites. A candidate may file an application only after all prerequisites have been completed. At that time, the student will be eligible to take the nursing entrance examination called TEAS (Test of Essential Academic Skills). If the student achieves a passing score on the TEAS, he or she will be placed on the waiting list. If a student does not achieve a passing score on the TEAS, he or she will be provided with remediation opportunities and permitted to retake the exam. Students may retake the entrance exam once. Program flyers with prerequisites and admission information may be obtained from the Counseling Office or the Department of Allied Health. The Registered Nursing Program is approved by the California Board of Registered Nursing (BRN).

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree** program, students are able to:

- Utilize nursing process and Maslow's Hierarchy of Needs to provide nursing care to clients along the health-illness curriculum across the life span.
- Demonstrate ability to apply theoretical knowledge and clinical skills to practice as an entry level registered nurse.

NURSING, REGISTERED

Associate in Science Degree

Major Units: 42

Requirements for the Associate in Science degree in Registered Nursing may be met by completing 42 units of Required Courses with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

REQUIRED COURSES

Nursing courses must be taken in sequence and completed with a grade of "C" or better.

WINTER OR SUMMER SESSION		UNITS
REGNRSG 119	Introduction to Nursing	1

SEMESTER I		UNITS
REGNRSG 121	Fundamentals of Nursing	3
REGNRSG 122	Introduction to Medical Surgical Nursing	3
REGNRSG 123	Nursing Process and Communication	2
REGNRSG 125	Nursing Pharmacology	2
REGNRSG 134	Nursing Simulation Lab	1

SEMESTER II		UNITS
REGNRSG 126	Medical-Surgical Nursing I	5
REGNRSG 129	Gerontology and Community Based Nursing	2
REGNRSG 130	Psychiatric Mental Health Nursing	3
REGNRSG 136	Nursing Simulation Lab Intermediate	1

SEMESTER III		UNITS
REGNRSG 127	Medical-Surgical Nursing II	5
REGNRSG 131	Reproductive Nursing and Women's Health	3.5
REGNRSG 137	Nursing Simulation Lab Advanced	1

SEMESTER IV		UNITS
REGNRSG 128	Medical-Surgical Nursing III	3
REGNRSG 132	Care of Children and Family	3.5
REGNRSG 133	Nursing Leadership and Management	3

NURSING, REGISTERED: LVN TO RN CAREER LADDER

Associate in Science Degree

Major Units: 32

Department: Health and Excercise Sciences
Department Chair: Joseph Ratcliff
(213) 763-3730, RatcliJE@lattc.edu

PROGRAM OVERVIEW

Nursing is a field that is in high demand and is one that is personally rewarding and constantly stimulating. **The Career Ladder Program at Los Angeles Trade-Technical College** is approved by the Board of Registered Nursing. It combines nursing theory with selected laboratory experiences and general education courses. Program courses are sequenced from simple to complex. Nursing courses include medical surgical nursing, reproductive and women's health, nursing of children and families, psychiatric nursing, geriatric and community nursing, leadership and preceptorship. The graduate of the Career Ladder program is eligible to apply for the State Board of Registered Nursing Licensing Examination (NCLEX) once all nursing program and Associate in Science Degree requirements are satisfactorily met.

Applicants with a valid VN license may enter into second semester after completing the LVN to RN Bridge course (RN 135) and passing the pharmacology exam and dosage calculation examination. Students have the option of challenging Medical Surgical Nursing I, RN 126, R Reproductive and Women's Health Nursing, RN 131, and RN 132, Nursing Care of Children and Families. This may be done after completing 12 units at LATTC and after being accepted into the Career Ladder program.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree** program, students are able to:

- Utilize nursing process and Maslow's Hierarchy of Needs to provide nursing care to clients along the health-illness curriculum across the life span.
- Demonstrate ability to apply theoretical knowledge and clinical skills to practice as an entry level registered nurse.

Please note: Students enter in 2nd semester and take all courses in the generic RN Program. Career Ladder students may challenge RN 131 and RN 132.

The 30 unit option is offered to applicants with a valid VN license. Those applicants take 2 courses in second semester and all courses in third and fourth semester. They are then eligible to take the NCLEX-RN licensing exam. This option does not lead to a degree. In addition, students who wish to return to LATTC and obtain an AS degree may not apply these courses to their major.

PREREQUISITES		UNITS
Current valid California LVN license, plus the following:		
ANATOMY 001	Introduction to Human Anatomy	4
MICRO 001	Introductory Microbiology	5
-or- MICRO 020	*General Microbiology (4)*	
PHYSIOL 001	Introduction to Human Physiology	4
PSYCH 001	General Psychology I	3
PSYCH 041	Life-Span Psychology: From Infancy to Old Age	3
ENGLISH 101	College Reading and Composition I	3
TEAS 5.0 EXAM	(passing grade 62%)	
REGNRSG 135	Transition from LVN to RN	2
	(Must be taken after all other prerequisites have been completed)	

REQUIRED COURSES

SEMESTER II		UNITS
REGNRSG 126	Medical-Surgical Nursing I	5
REGNRSG 129	Gerontology and Community Based Nursing	2
REGNRSG 130	Psychiatric Mental Health Nursing	3
REGNRSG 136	Nursing Simulation Lab Intermediate	1
SEMESTER III		**UNITS**
REGNRSG 127	Medical-Surgical Nursing II	5
REGNRSG 131	Reproductive Nursing and Women's Health	3.5
REGNRSG 137	Nursing Simulation Lab Advanced	1
SEMESTER IV		**UNITS**
REGNRSG 128	Medical-Surgical Nursing III	3
REGNRSG 132	Care of Children and Family	3.5
REGNRSG 133	Nursing Leadership and Management	3

LVN TO RN 30-UNIT OPTION

Major Units: 28-30

The 30 unit option is offered to applicants with a valid VN license. Those applicants take 2 courses in second semester and all courses in third and fourth semester. They are then eligible to take the NCLEX-RN licensing exam. This option does not lead to a degree. In addition, students who wish to return to LATTC and obtain an AS degree may not apply these courses to their major.

NOTE: This educational option may not be recognized in states outside of California. Check with an individual state BRN for more information.

PREREQUISITES

A grade of "C" or better must be obtained in all courses. High school graduate or GED, U.S. university degree or A.S./A.A. degree is required.

		UNITS
MICRO 020	General Microbiology	4
ANATOMY 001	Introduction to Human Anatomy	4
PHYSIOL 001	Introduction to Human Physiology	4
TEAS 5.0 EXAM	(passing grade 62%)	
REGNRSG 135	Transition from LVN to R.N.	2
	(Must be taken after all other prerequisites have been completed)	

REQUIRED COURSES

SEMESTER II		UNITS
REGNRSG 129	Gerontology and Community Based Nursing	2
REGNRSG 130	Psychiatric Mental Health Nursing	3
REGNRSG 136	Nursing Simulation Lab Intermediate	1

SEMESTER III		UNITS
REGNRSG 127	Medical-Surgical Nursing II	5
REGNRSG 131	Reproductive Nursing and Women's Health	3.5
REGNRSG 137	Nursing Simulation Lab Advanced	1

SEMESTER IV		UNITS
REGNRSG 128	Medical-Surgical Nursing III	3
REGNRSG 132	Care of Children and Family	3.5
REGNRSG 133	Nursing Leadership & Management	3

NOTE: Nursing courses must be taken in sequence and completed with a grade of "C" or better.

OPERATION AND MAINTENANCE ENGINEERING: *STEAM* PLANT

Department: **Construction, Design, and Manufacturing**
Department Chair: **Mr. William (Bill) Elarton, Room SQ-122**
(213) 763-3701, cdm@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Operation & Maintenance Engineering: Steam Plant	C		12	24	36
For additional related degrees and certificates, refer to programs under Refrigeration and Air Conditioning Mechanics.					

PROGRAM OVERVIEW

Most craft workers specialize in one kind of work, such as plumbing or carpentry. General maintenance and repair workers, however, have skills in many different crafts. They repair and maintain machines, mechanical equipment, and buildings. They also work on plumbing, electrical, and air conditioning and heating systems. They build partitions, make plaster or drywall repairs, and fix or paint roofs, windows, doors, floors, woodwork, and other parts of building structures. In addition, they maintain and repair specialized equipment and machinery found in cafeterias, laundries, hospitals, stores, offices, and factories.

A general maintenance worker's typical duties include troubleshooting and fixing faulty electrical switches, repairing air-conditioning motors, and unclogging drains. In addition, newer buildings sometimes have computer-controlled systems that allow maintenance workers to make adjustments in building settings and monitor for problems from a central location; for example, they can remotely control light sensors that turn off lights automatically after a set amount of time or identify a broken ventilation fan that needs to be replaced.

General maintenance and repair workers inspect and diagnose problems and determine the best way to correct them, frequently checking blueprints, repair manuals, and parts catalogs. They obtain supplies and repair parts from distributors or storerooms. Using common hand and power tools such as screwdrivers, saws, drills, wrenches, and hammers, as well as specialized equipment and electronic testing devices, these workers replace or fix worn or broken parts, where necessary, or make adjustments to correct malfunctioning equipment and machines.

General maintenance and repair workers also perform routine preventive maintenance tasks to ensure that machines continue to run smoothly, building systems operate efficiently, and the physical condition of buildings does not deteriorate. Following a checklist, they may inspect drives, motors, and belts, check fluid levels, replace filters, and perform other maintenance actions. Maintenance and repair workers keep records of their work.

The "Certified Steam Boiler License" is a specialized certification required for many maintenance workers. LATTC offers a Certificate of Achievement-Steam Plant to address this need. The core of the program is designed to prepare students to take the Boiler/Steam Plant certification exam, while the remainder is structured to create students who possess an array of skills which would be transferable to a variety of job settings, creating a highly capable general maintenance worker.

By fulfilling the program requirements, students will have the necessary skills for entry and mid level jobs in the general maintenance industry. This program prepares the student for basic electrical, heating and refrigeration, plumbing, and carpentry work, and to pass the "Certified Boiler/Steam Plant" License exam.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

- Use and interpret technical manuals to properly identify all major components of a high and low pressure boiler system and state and describe their function.
- Apply the proper procedures for calculation and measurement necessary in the operations and maintenance field.
- Safely use appropriate materials, test equipment and tools in order to connect and or troubleshoot a high and low pressure boiler system in addition use charging, evacuation, and recovery equipment properly and safely on a heating, ventilation, air conditioning and refrigeration (HVACR) system.



OPERATION & MAINTENANCE ENGINEERING: STEAM PLANT

Certificate of Achievement

Major Units: 36

A Certificate of Achievement in Operation and Maintenance Engineering: Steam Plant may be earned by completing 12 units of Required Courses and 24 units of Major Electives with a "C" or better in each course.

REQUIRED COURSES

		UNITS
OPMAINT 228	Steam Plant Operation I	6
OPMAINT 229	Steam Plant Operation II	6

MAJOR ELECTIVES

Select at least 24 units from the courses below		UNITS
CRPNTRY 111A	Construction IA	3
CRPNTRY 241	Blueprint Reading and Estimating	3
ECONMT 100	(O.S.H.A.) Safety Standards: Construction & Industry	2
ECONMT 105	Fundamentals of Solar Electricity	3
ECONMT 110	Renewable Energy Systems	3
ECONMT 171	Electrical Codes and Ordinances I	3
ECONMT 181	Basic Wiring Practices	3
ECONMT 182	Basic Diagram and Circuit Practices	1
PLUMBNG 028	Plumbing Code I	3
PLUMBNG 031	Backflow Prevention Devices	3
PLUMBNG 145 †	Plumbing Installation and Service	3
REF A/C 159	Principles and Practices of Electric Circuits and Controls	4
REF A/C 160	Refrigeration System Principles and Practices	4
REF A/C 161	Air Conditioning System Principles and Practices	4
REF A/C 162	Piping Principles and Practices	4
REF A/C 164	Gas Heating Systems	4
REF A/C 165	Thermal Energy Storage/Heat Recovery	4
REF A/C 176	Heating and Air Conditioning I	3
REF A/C 177	Heating and Air Conditioning II	3
REF A/C 187	Servicing I	3
REF A/C 188	Servicing II	3
REF A/C 202	Refrigeration Fundamentals	3
REF A/C 203	Compression Systems of Refrigeration	3
REF A/C 204	Functions and Compression System Components	3
REF A/C 208	Refrigerant Management – EPA Section 608 Certification	4
REF A/C 199	Mechanical Code I - HVACR	3

† Course currently unavailable

PARALEGAL STUDIES

Department: Behavioral/Social Sciences/Child Development
Department Chair: Dr. Freddie McClain, Room AH-516
(213) 763-3936, McclaiF@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Paralegal Studies	A.A.	Plan B	39	3	42
Paralegal Studies	C		39	-	39
At least 60 degree applicable units (42 total major units and Plan B units) are required to earn an Associate degree.					

PROGRAM OVERVIEW

The Paralegal Studies program at LATTC will prepare students for employment as paralegals or legal assistants in both the private and public sectors. Students who complete the program will be able to work with lawyers in law offices, corporations, governmental agencies or other entities. Upon completion of the program students will be able to prepare cases for court, calendar, draft various legal documents, fill out Judicial Council Forms, interview clients, brief cases and conduct traditional and computer assisted legal research using Lexis Nexis and/or West Law. The program will also provide hands on experience through internships within private law firms, government agencies, courts and legal aid clinics.

The graduate possessing the Certificate of Achievement or the AA Degree will be able to work closely with attorneys and be responsible for researching, analyzing, and managing tasks associated with legal cases. The Paralegal Studies program at LATTC is driven by its business relationships and partnerships with practicing lawyers, paralegals from the public and private sectors, legal clinics, paralegal consortium's and other community colleges' paralegal faculty members. The mission of the program is to provide an environment of excellence in knowledge and the latest practices of the legal field.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Prepare cases for courts, collect data and investigate case facts, and build arguments based on data.
- Review previous judiciary decisions and make information available and accessible to attorneys.
- Identify the law pertaining to individual cases and all required information.
- Prepare legal documents, draft motions, and obtain affidavits, including legal reports for attorneys.

PARALEGAL STUDIES

Associate in Arts Degree

Major Units: 42

Requirements for the Associate in Arts degree in Paralegal Studies may be met by completing 39 Units of Required Courses and 3 Units of Elective Courses with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

REQUIRED COURSES

SEMESTER I		UNITS
CAOT 084	Microcomputer Office Applications: Word Processing	3
COMM 101	Public Speaking	3
PALEGAL 010	Introduction to Law and Legal Profession	3
LIB SCI 101	Library Research Methods	1

SEMESTER II		UNITS
*BUS 005	Business Law I	3
-or- BUS 006	*Business Law II (3)*	
PALEGAL 011	Introduction to Civil Litigation II	3
PALEGAL 012	Tort Law	3
PALEGAL 019	Property and Creditor Rights	3

SEMESTER III		UNITS
PALEGAL 017	Legal Writing	3
CAOT 093	Legal Document Production	2
*PALEGAL 016	Civil and Criminal Evidence	3
-or- Law 038	*Criminal Law & Procedure (3)*	

SEMESTER IV		UNITS
ENGLISH 103	Composition and Critical Thinking	3
PALEGAL 004	Legal Internship	3
PALEGAL 051	Legal Research	3

ELECTIVES		UNITS
*PALEGAL 016	Civil and Criminal Evidence	3
-or- Law 038	*Criminal Law & Procedure (3)*	
*BUS 005	Business Law I	3
-or- BUS 006	*Business Law II (3)*	
PALEGAL 014	Law Office Management and Procedures	3
PALEGAL 003	Civil Rights and the Law	3
PALEGAL 013	Wills, Trusts and Probate Administration	3
PALEGAL 020	Probate Procedures	3
LAW 018	Marriage and Family Law	3

* Where one or the other course has been previously credited, the other course can serve as elective.

PARALEGAL STUDIES

Certificate of Achievement

Major Units: 39

A Certificate of Achievement in Paralegal Studies may be earned by completing 39 units of Required Courses with a "C" or better in each course.

REQUIRED COURSES

SEMESTER I		UNITS
CAOT 084	Microcomputer Office Applications: Word Processing	3
COMM 101	Public Speaking	3
PALEGAL 010	Introduction to Law and Legal Profession	3
LIB SCI 101	Library Research Methods	1

SEMESTER II		UNITS
*BUS 005	Business Law I	3
- or - BUS 006	*Business Law II (3)*	
PALEGAL 011	Introduction to Civil Litigation II	3
PALEGAL 012	Tort Law	3
PALEGAL 019	Property and Creditor Rights	3

SEMESTER III		UNITS
PALEGAL 017	Legal Writing	3
CAOT 093	Legal Document Production	2
*PALEGAL 016	Civil and Criminal Evidence	3
-or- Law 038	*Criminal Law & Procedure (3)*	

SEMESTER IV		UNITS
ENGLISH 103	Composition and Critical Thinking	3
PALEGAL 004	Legal Internship	3
-or- PALEGAL 014	*Law Office Management and Procedures (3)*	
PALEGAL 051	Legal Research	3

NOTE: Certificate is awarded to students who already possess an Associate's degree in Paralegal Studies or higher.

* Where one or the other course has been previously credited, the other course can serve as elective.

PLUMBING

Department: **Construction, Design, and Manufacturing**
Department Chair: **Mr. William (Bill) Elarton, Room SQ-122**
(213) 763-3701, cdm@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Plumbing —(day only)	A.S.	Plan B	48	-	48
Plumbing —(day only)	C		48	-	48
Plumbing: Construction Technology —(evening only)	A.A.	Plan B	37	8	45
Plumbing: Construction Technology —(evening only)	C		37	8	45
At least 60 degree applicable units (48 total major units and Plan B units) are required to earn an Associate degree. For additional related degrees and certificates, refer to Water Systems Technology.					

PROGRAM OVERVIEW

Most people are familiar with plumbers, those individuals who come to their home to unclog a drain or install an appliance. Plumbers install, maintain, and repair many different types of pipe systems. Some systems move water to a municipal water treatment plant and then to residential, commercial, and public buildings. Other systems dispose of waste, provide gas to stoves and furnaces, or provide for heating and cooling needs. Pipe systems in power plants carry the steam that powers huge turbines, while pipes also are used in manufacturing plants to move material through the production process. Specialized piping systems are critical in both pharmaceutical and computer-chip manufacturing. The existence of such various pipe systems generate the need for trained plumbers.

Plumbers must be able to follow building plans or blueprints and instructions, lay out the job, and work efficiently with the materials and tools of their trade. Computers and specialized software are used to create blueprints and plan layouts. To meet the training needs of persons interested in becoming a service and repair plumber or a commercial construction plumber, LATTC offers a Plumbing Associate in Science degree and a Plumbing Construction Technologies Associate in Arts degree, as well as Certificates of Achievement.

The Associate in Science degree is designed for individuals seeking entry level positions in the field. Students enrolling in this program should be able to commit to full-time student status, which is approximately 24 hours per week. This time commitment is necessary to allow for hands-on training with the laboratory applications used during the course of instruction.

The Associate in Arts degree is an evenings-only course of study designed for individuals currently in the field who want to improve or expand their skills. Due to limitations on available evening hours, the utilization of hands-on laboratory application is assumed to be provided at the student's place of employment. Depending on availability, the Associate in Arts degree may require slightly longer time to complete due to limited hours available. Check with the Department Chair for more details prior to enrolling

Plumbers work in commercial and residential settings where water and septic systems need to be installed and maintained. They also work outdoors, sometime in remote areas, as they build the pipelines that connect sources of oil, gas, and chemicals with the users of these materials. Because plumbers frequently must lift heavy pipes, stand for long periods, and sometimes work in uncomfortable or cramped positions, they need physical strength as well as stamina.

By fulfilling the program requirements, students will have the necessary knowledge and skills for a career in residential, commercial, and industrial service and repair or construction plumbing. Reading of blueprints, layout, estimating, installation of piping systems and fixtures, repair of supply and waste water systems are just some of the skills that will be mastered during this program.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Use hand and power tools Such as the right angle drill, Hole Hawg and Super Hawg, plumb bob and tape measure, to perform plumbing operations.
- Employability.
- Perform trade calculations related to plumbing practices.
- Create and use construction documentation.

PLUMBING

Associate in Science Degree

Major Units: 48

Requirements for the Associate in Arts degree in Plumbing may be met by completing 48 units of Required Courses with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

REQUIRED COURSES

LEVEL I		UNITS
PLUMBNG 111	Introduction to Plumbing	3
PLUMBNG 112	Fundamentals of Plumbing	3
PLUMBNG 113	Basic Plumbing Principles and Practices	6

LEVEL II		UNITS
PLUMBNG 121	Working Drawings and Layout I	3
PLUMBNG 122	Plumbing Mathematics and Procedures II	3
PLUMBNG 123	Plumbing Practices and Installation	6

LEVEL III		UNITS
PLUMBNG 131	Working Drawing II	3
PLUMBNG 132	Plumbing Calculations and Procedures II	3
PLUMBNG 133	Installation and Plumbing Fixtures	6

LEVEL IV		UNITS
PLUMBNG 141	Advanced Layout and Procedures	3
PLUMBNG 142	Servicing of Plumbing Fixtures and Appliances	3
PLUMBNG 143	Plumbing Code I	3
PLUMBNG 144	Special Purposes Installation	3

MAJOR ELECTIVES

		UNITS
BLDGCTQ 101	Contract's License Law	3
ECONMT 100	(O.S.H.A.) Safety Standards: Construction & Industry	2
PLUMBNG 026	Plumbing Layout and Estimating I	3
PLUMBNG 027	Plumbing Layout and Estimating II	3
PLUMBING 028	Plumbing Code I	3
PLUMBNG 029	Plumbing Code II	3
PLUMBNG 031	Backflow Prevention Devices	3
PLUMBNG 033	Plumbing Code III	3
PLUMBNG 145 †	Plumbing Installation and Service	3
PLUMBNG 941	Cooperative Education-Plumbing	4

PLUMBING

Certificate of Achievement

Major Units: 48

A Certificate of Achievement in Plumbing may be earned by completing 48 units of Required Courses listed under for the Associate degree in Plumbing with a "C" or better in each course.

By fulfilling the program requirements, students will have the necessary knowledge and skills for a career in residential, commercial, and industrial service and repair or construction plumbing.

PLUMBING: CONSTRUCTION TECHNOLOGIES

Associate in Arts Degree

Major Units: 45

Requirements for the Associate in Arts degree in Plumbing: Construction Technology may be met by completing 37 units of Required Courses and 8 units of Major Electives with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

By fulfilling the program requirements, students will have the necessary knowledge and skills for a career in Residential, Commercial, and Industrial Service and Repair or Construction Plumbing.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Use hand and power tools to perform plumbing operations.
- Demonstrate sustainable plumbing practices.
- Perform trade calculations related to plumbing practices.
- Create and use construction documentation.

REQUIRED COURSES

SEMESTER I		UNITS
PLUMBNG 028	Plumbing Code I	3
PLUMBNG 112	Fundamentals of Plumbing	3
WELDG/E 201A	Welding-Gas and Electric IA	1

SEMESTER II		UNITS
PLUMBNG 026	Plumbing Layout and Estimating I	3
PLUMBNG 029	Plumbing Code II	3
WELDG/E 202B †	Welding – Gas and Electric II	1

SEMESTER III		UNITS
OPMAINT 228	Steam Plant Operation I	6
PLUMBNG 027	Plumbing Layout and Estimating II	3
PLUMBNG 033	Plumbing Code III	3

SEMESTER IV		UNITS
OPMAINT 229	Steam Plant Operation II	6
PLUMBNG 031	Backflow Prevention Devices	3
PLUMBNG 246	Principles and Practices of Plumbing Design	4

MAJOR ELECTIVES

Select at least 8 units from the courses below		UNITS
BLDGCTQ 101	Contract's License Law	3
ECONMT 181	Basic Wiring Practices	3
ECONMT 100	(O.S.H.A.) Safety Standards: Construction & Industry	2
ENGLISH 101	College Reading and Composition I	3
LABR ST 115	Workplace Health and Safety	1
LABR ST 127	Worker's Compensation	1
MARKET 021	Principles of Marketing	3
MATH 115	Elementary Algebra	5
MATH 245	College Algebra	3
PLUMBNG 145 †	Plumbing Installation and Service	3
PLUMBNG 250 †	Design and Construction Specialties	4
PLUMBNG 941	Cooperative Education- Plumbing	4

PLUMBING: CONSTRUCTION TECHNOLOGIES

Certificate of Achievement

Major Units: 45

A Certificate of Achievement in Plumbing: Construction Technology may be earned by completing 37 units of Required Courses and 8 units of Major Electives listed under for the Associates degree in Plumbing: Construction Technology with a "C" or better in each course.

† Course currently unavailable

PROCESS PLANT TECHNOLOGY

Department: Sciences
Department Chair: Dr. Miguel A. Moreno, Room CH-405
(213) 763-7322, MorenoMA@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Process Plant Technology	A.S.	Plan B	45	-	45
Process Plant Technology	C		45	-	45
At least 60 degree applicable units (45 total major units and Plan B units) are required to earn an Associate degree.					

PROGRAM OVERVIEW

The Chemical Process Industries (CPI) are a major part of U.S. business and represent a diverse industries ranging from pharmaceuticals to large-scale processing of gasoline and waste water treatment and food and beverage. Working in the CPI represents a particular challenge with regard to handling materials, which range from small quantities of specialized products to large quantities of potentially hazardous materials.

Process Technicians (PTs) team with engineers and other technicians with specialties such as instrumentation, electronics, or maintenance to adjust and optimize conditions for the production of large quantities of products. The quality of the production is dependent on the skill and knowledge of the Process Technician in carrying out the operations of the plant. PTs must be concerned with issues such as personal and co-worker safety, impact of materials on the environment, and process skills that deal with all aspects of controlling processes and maintaining equipment.

CPI is the fourth largest manufacturing industry in the United States. It encompasses plants manufacturing an almost endless range of products, such as chemicals, (both organic and inorganic), food and beverages, cleaning preparations, plastics, agricultural chemicals, paints, pharmaceuticals, cosmetics, power generation, pulp and paper, petroleum refining and wastewater treatment, to name just a few.

The LATTC Process Technology program is a member of the California Chemical and Process Technology Alliance (CCPTA) and the Pacific Technology Career Alliance, an education/industry consortia of major chemical industries both public and privates. The CCPTA was founded for the purpose of ensuring that Process Technology instructors and students are on the receiving end of current industry analytical methods, techniques, equipment and standards. The Alliance is also committed to providing a well skilled employee pool for chemical industry employment opportunities.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Provide a well skilled employee base capable of applying knowledge of operations and other industrial processes within the chemical industry work environment.
- Demonstrate good verbal and written communication.
- Evaluate and apply knowledge of regulatory policies such as current Good Manufacturing Practices (cGMP) and Environmental, Health and Safety

PROCESS TECHNOLOGY

Associate in Science Degree

Major Units: 45

The Process and Chemical Process Industries (CPI) are a major part of U.S. business and represent a diverse industries ranging from pharmaceuticals to large scale processing of gasoline and waste water treatment and food and beverage. Working in the CPI represents a particular challenge with regard to handling materials, which range from small quantities of specialized products to large quantities of potentially hazardous materials.

The LATTC Process Technology program is a member of the California Chemical and Process Technology Alliance (CCPTA) and the Pacific Technology Career Alliance, an education/industry consortia of major chemical industries both public and privates. The CCPTA was founded for the purpose of ensuring that Process Technology instructors and students are on the receiving end of current industry analytical methods, techniques, equipment and standards.

The Alliance is also committed to providing a well skilled employee pool for chemical industry employment opportunities.

At the conclusion of this program, students will have the skills necessary for:

- Working in the refinery, biomanufacturing, petrochemical and other process industry, including treatment plants
- Monitoring safety/health and environmental regulations
- Sampling and handling chemical materials
- Measuring physical properties
- Operating and maintaining process instruments and equipment
- Understanding process operations using P&IDs and associated documents
- Troubleshooting process operations.

REQUIRED COURSES

SEMESTER I (FALL)		UNITS
PRPLTEK 100	Introduction to Industrial Process	3
PRPLTEK 103	Process Plant Equipment	3
PHYSICS 011	Introductory Physics	4
CHEM T 111	Applied Chemistry I	5

SEMESTER II (SPRING)		UNITS
PRPLTEK 102	Process Measurement and Control Fundamentals	3
PRPLTEK 200	Petroleum Refining Fundamentals	3
PRPLTEK 204	PTech Instrumentation - Computer Applications	2

SEMESTER III (FALL)		UNITS
PRPLTEK 206	PTech-Advanced Instrumentation II	3
PRPLTEK 210	Applied Instrumentation Analysis I	4
-or- CHEM T 132	*Quantitative and Instrumental Analysis I (5)*	
PRPLTEK 104	Introduction to Process Plant Safety	3

SEMESTER IV (SPRING)		UNITS
PRPLTEK 202	Introduction to Process Plant Troubleshooting	3
PHYSICS 029A/B	Basic Physics for Technicians	4
MATH 125	Intermediate Algebra	5
-or- higher		

PROCESS TECHNOLOGY

Certificate of Achievement

Major Units: 45

A Certificate of Achievement in Process Plant Technology may be earned by completing 45 units of Required Courses listed under for the Associates degree in Process Technology with a "C" or better in each course.

REAL ESTATE

Department: **Business and Entrepreneurial Related Programs**

Department Chair: **Benjamin Goldstein, JH-523**
213-763-7051, GoldstBD@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Real Estate	A.A.	Plan B	45	-	45
Real Estate	C		30	-	30
At least 60 degree applicable units (45 total major units and Plan B units) are required to earn an Associate degree.					

PROGRAM OVERVIEW

The Real Estate Program offers several option, which prepare students for increasing levels of responsibility and career choices within the field of real estate.

Associate of Arts in Real Estate

The Associate of Arts in Real Estate degree is designed for transfer to an upper division public college or university in the State of California. The designed curriculum prepares students for the real estate salesperson's license, the real estate broker's license and the practice of real estate.

By fulfilling the program requirements, students are prepared for a variety of entry level and advanced career opportunities in the real estate profession. Typical positions include: real estate agent, broker, real estate assistant, processor, appraiser, property manager, escrow officer, title officer, real estate office manager, consumer protection representative, land developer, urban planner, construction, business sales agent, community advocate, property inspector, investor, and owner of income producing properties.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Demonstrate knowledge of real estate principles and practices in fulfillment of Department of Real Estate Licensure requirements.

REAL ESTATE

Associate in Arts Degree

Major Units: 45

Requirements for the Associate in Arts degree in Real Estate may be met by completing 45 units of Required Courses with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

REQUIRED COURSES

SEMESTER I		UNITS
REAL ES 001	Real Estate Principles	3
BUS 005	Business Law I	3
BUS 001	Introduction to Business	3
BUS 032	Business Communications	3

SEMESTER II		UNITS
BUS 038	Business Computations	3
CAOT 082	Microcomputer Software Survey in the Office	3
REAL ES 009	Real Estate Appraisal I	3

SEMESTER III		UNITS
ACCTG 001	Introductory Accounting I	5
REAL ES 007	Real Estate Finance I	3
REAL ES 003	Real Estate Practices	3
CAOT 101	Hands-on Internet	1

SEMESTER IV		UNITS
REAL ES 014	Property Management	3
SUPV 011	Oral Communications	3
REAL ES 005	Legal Aspects of Real Estate I	3
ECON 002	Principles of Economics II	3

NOTE: **Students should verify the broker's and salesperson's licensing requirements with the California Department of Real Estate.**

REAL ESTATE

Certificate of Achievement

Major Units: 30

A Certificate of Achievement in Real Estate may be earned by completing 30 units of Required Courses with a "C" or better in each course.

REQUIRED COURSES

SEMESTER I		UNITS
REAL ES 001	Real Estate Principles	3
REAL ES 003	Real Estate Practices	3
BUS 005	Business Law I	3
CAOT 082	Microcomputer Software Survey in the Office	3
REAL ES 007	Real Estate Finance I	3

SEMESTER II		UNITS
REAL ES 009	Real Estate Appraisal I	3
ACCTG 001	Introductory Accounting I	5
MARKET 001	Principles of Selling	3
BUS 001	Introduction to Business	3
CAOT 101	Hands-on Internet	1

REFRIGERATION AND AIR CONDITIONING MECHANICS

Department: Construction, Design, and Manufacturing
Department Chair: Mr. William (Bill) Elarton, Room SQ-122
(213) 763-3701, cdm@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Refrigeration and Air Conditioning Mechanics —(day only)	A.S.	Plan B	42	6	48
Refrigeration and Air Conditioning Mechanics —(day only)	C		42	6	48
Refrigeration and Air Conditioning Mechanics —(evening only)	A.S.	Plan B	43	5	48
Refrigeration and Air Conditioning Mechanics —(evening only)	C		43	5	48

At least 60 degree applicable units (48 total major units and Plan B units) are required to earn an Associate degree.

For additional related certificates, refer to programs under Operation & Maintenance Engineering: Steam Plant.

PROGRAM OVERVIEW

Cooling and heating devices help regulate the temperature, humidity, and air quality in residential homes, commercial locations, and industrial facilities. Critical items like food and medicine require refrigeration to keep them from spoiling. Technicians repair, maintain, and install heating, air-conditioning, and refrigeration systems. Our program trains these technicians. Los Angeles Trade-Technical College offers an Associate of Science degree in Refrigeration and Air Conditioning Mechanics, as well as Certificate of Achievement.

By fulfilling the program requirements, students will have the necessary knowledge and skills for a career in residential, commercial, and Industrial service and repair of air conditioning, heating and refrigeration systems. Environmental Protection Agency (EPA) refrigerant certification will be received. Electrical controls, piping installation, compressor installation and repair are just some of the skills that would be mastered during this program.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Use and interpret technical manuals to properly identify all major components (compressor, condenser, evaporator, metering device) of a refrigeration system and state and describe their function.
- Apply the proper procedures for calculation and measurement (superheat and subcooling) necessary in the air conditioning and refrigeration field.
- Safely use appropriate materials, test equipment and tools (refrigerant leak detector, VOM, CO detector, Infrared thermometer) in order to connect or troubleshoot a refrigeration and air conditioning system.
- Use charging, evacuation, and recovery equipment properly and safely. Use of Vacuum pump, Refrigeration Service Analyzers, and recovery/recycling equipment.

REFRIGERATION & AIR CONDITIONING MECHANICS

Associate in Science Degree

Major Units: 48

Requirements for the Associate in Science degree in Refrigeration and Air Conditioning Mechanics may be met by completing 48 total major units with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

Courses from the day or evening programs should not be mixed in an attempt to meet the degree requirements.

OPTION 1: DAY PROGRAM

REQUIRED COURSES

SEMESTER I		UNITS
REF A/C 111	Fundamentals of Refrigeration	3
REF A/C 101	Air Conditioning & Refrigeration Principles & Practices-First Semester	9
ECONMT 119	Electrical Construction and Maintenance	3
-or- ECONMT 173	*Electrical Mathematics I (3)*	

SEMESTER II		UNITS
REF A/C 123	Pipe and Tube Joining Processes	1
REF A/C 124	Refrigeration Electrical Circuits and Controls	5
REF A/C 125	Refrigeration System Components	3
ECONMT 174	Electrical Mathematics II	3

SEMESTER III		UNITS
REF A/C 133	Refrigeration Service Procedures I	3
REF A/C 134	Service for Commercial Refrigeration	3
REF A/C 135	Air Conditioning and Refrigeration	3

SEMESTER IV		UNITS
REF A/C 141	Applied Refrigeration and Air Conditioning Principles	3
REF A/C 143	Refrigeration Servicing Procedures II	3
REF A/C 145	Air Conditioning and Refrigeration Mechanics	3

OPTION 2: EVENING PROGRAM

REQUIRED COURSES

LEVEL I		UNITS
REF A/C 202	Refrigeration Fundamentals	3
REF A/C 250	Indoor Air Quality	3
ECONMT 115	Fundamentals of D.C. Electricity	3
ECONMT 173	Electrical Mathematics I	3

LEVEL II		UNITS
REF A/C 159	Principles and Practices of Electrical Circuits and Controls	4
REF A/C 203	Compression Systems of Refrigeration	3
REF A/C 204	Functions and Compression System Components	3
ECONMT 129	Fundamentals of Alternating Current	3

LEVEL III		UNITS
REF A/C 187	Servicing I	3
REF A/C 188	Servicing II	3
REF A/C 208	Refrigerant Management-EPA Section 608 Certification	4

LEVEL IV		UNITS
REF A/C 160	Refrigeration System Principles and Practices	4
REF A/C 164	Gas Heating Systems	4

MAJOR ELECTIVES

DAY PROGRAM: **Select at least 6 units from the courses below**
EVENING PROGRAM: **Select at least 5 units from the courses below**

		UNITS
BLDGCTQ 101	Contract's License Law	3
ECONMT 100	(O.S.H.A.) Safety Standards: Construction & Industry	2
PHYSICS 012	Physics Fundamentals	3
REF A/C 100	Air Conditioning Project Management	3
REF A/C 161	Air Conditioning System Principles and Practices	4
REF A/C 162	Piping Principles and Practices	4
REF A/C 164	Gas Heating Systems	4
REF A/C 165	Thermal Energy Storage/Heat Recovery	4
REF A/C 176	Heating and Air Conditioning I	3
REF A/C 177	Heating and Air Conditioning II	3
REF A/C 187	Servicing I	3
REF A/C 188	Servicing II	3
REF A/C 250	Indoor Air Quality	3
REF A/C 199	Mechanical Code I - HVACR	3
REF A/C 208	Refrigerant Management-EPA Section 608 Certification	4
REF A/C 209	North American Technician Excellence (Nate) - Air Conditioning Specialist Certification Preparation	4
REF A/C 210	Refrigeration System Efficiency Factors	3
REF A/C 941	Cooperative Education-Refrigeration & Air Conditioning Mech	4

REFRIGERATION & AIR CONDITIONING MECHANICS

Certificate of Achievement

Major Units: 48

A Certificate of Achievement in Refrigeration and Air Conditioning Mechanics may be earned by completing 48 total major units with a "C" or better.

Courses from the day or evening programs should not be mixed in an attempt to meet the degree requirements.

RENEWABLE ENERGY GENERATION, TRANSMISSION, AND DISTRIBUTION: POWERLINE MECHANIC

Department: Construction, Design, and Manufacturing
Department Chair: Mr. William (Bill) Elarton, Room SQ-122
(213) 763-3701, cdm@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Renewable Energy Generation, Transmission, and Distribution: Powerline Mechanic	A.S.	Plan B	34-36	6-7	40-43
Powerline Mechanic	C		18-20	-	18-20
Utility Industry Fundamentals	C		19-21	-	19-21
At least 60 degree applicable units (43 total major units and Plan B units) are required to earn an Associate degree.					

PROGRAM OVERVIEW

LATTC offers Utility Industry Fundamentals and Powerline Mechanic Certificates of Achievement, as well as an Associate of Science degree in Renewable Energy Generation, Transmission, and Distribution with a Powerline Mechanic emphasis, for individuals interested in working in occupations in the utility industry sector—particularly transmission and distribution occupations. The courses comprising this program enable individuals to be prepared to obtain entry-level positions in the utility sector.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree** program, students are able to:

- Basic theory of Solar, Geothermal, Wind, Methane, and Water
- Use hand and power tools, testing equipment, and other P.P.E. related to perform basic utility powerline work.
- Perform calculations and measurements commiserate to entry level powerline work.
- Pole Climbing Competencies (Climbing with Confidence)

RENEWABLE ENERGY GENERATION, TRANSMISSION, AND DISTRIBUTION: POWERLINE MECHANIC

Associate in Science Degree

Major Units: 40-43

Requirements for the Associate in Science degree in Renewable Energy Generation, Transmission, and Distribution: Powerline Mechanic may be met by completing 34-36 units of Required Courses and 6-7 units of Major Electives with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

Recommended sequence of courses for Renewable Energy Generation, Transmission, and Distribution AS Degree with Power line Mechanic Emphasis

REQUIRED COURSES

SEMESTER I		UNITS
ECONMT 115	Fundamentals of D.C. Electricity	3
ECONMT 116	Hand Tools and Wiring Practices	2
ECONMT 100	(O.S.H.A.) Safety Standards: Construction & Industry	2
ECONMT 119	Electrical Construction and Maintenance	3
	-or- ECONMT 173 Electrical Mathematics I (3)	
	-or- MATH 115 or higher Elementary Algebra (3-5)	

SEMESTER II		UNITS
ECONMT 129	Fundamentals of Alternative Current	3
ECONMT 130	Principles of Industrial Electric Power	3
BLDGCTQ 010	Energy and Utility Industry Careers	3

SEMESTER III		UNITS
ELECL 601	Power Line Mechanic - Trainee (600 Hours)	15

MAJOR ELECTIVES

Select 6-7 units from the courses below		UNITS
ECONMT 105	Fundamentals of Solar Electricity	3
ECONMT 110	Renewable Energy Systems	3
ECONMT 205	Solar Energy Installation & Maintenance Principles and Practices	2
ECONMT 215	Small Wind Energy Systems Principles and Practices	3
REF A/C 105	Solar Water & Pool Heating System Principles	3
REF A/C 110	Solar Water & Pool Heating System Practices	2
REF A/C 165	Thermal Energy Storage / Heat Recovery	4

POWERLINE MECHANIC

Certificate of Achievement

Major Units: 18-20

A Certificate of Achievement in Powerline Mechanic may be earned by completing 18-20 units of Required Courses with a "C" or better in each course.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

- Use hand and power tools to perform basic utility powerline work.
- Perform calculations and measurements commiserate to entry level powerline work.
- Pole Climbing Competencies.

REQUIRED COURSES

		UNITS
ELECL 601	Power Line Mechanic - Trainee (600 Hours)	15
ECONMT 119	Electrical Construction and Maintenance	3
-or- ECONMT 173	*Electrical Mathematics I (3)*	
-or- MATH 115	*Elementary Algebra (5)*	

UTILITY INDUSTRY FUNDAMENTALS

Certificate of Achievement

Major Units: 19-21

A Certificate of Achievement in Utility Industry Fundamentals may be earned by completing 19-21 units of Required Courses with a "C" or better in each course.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

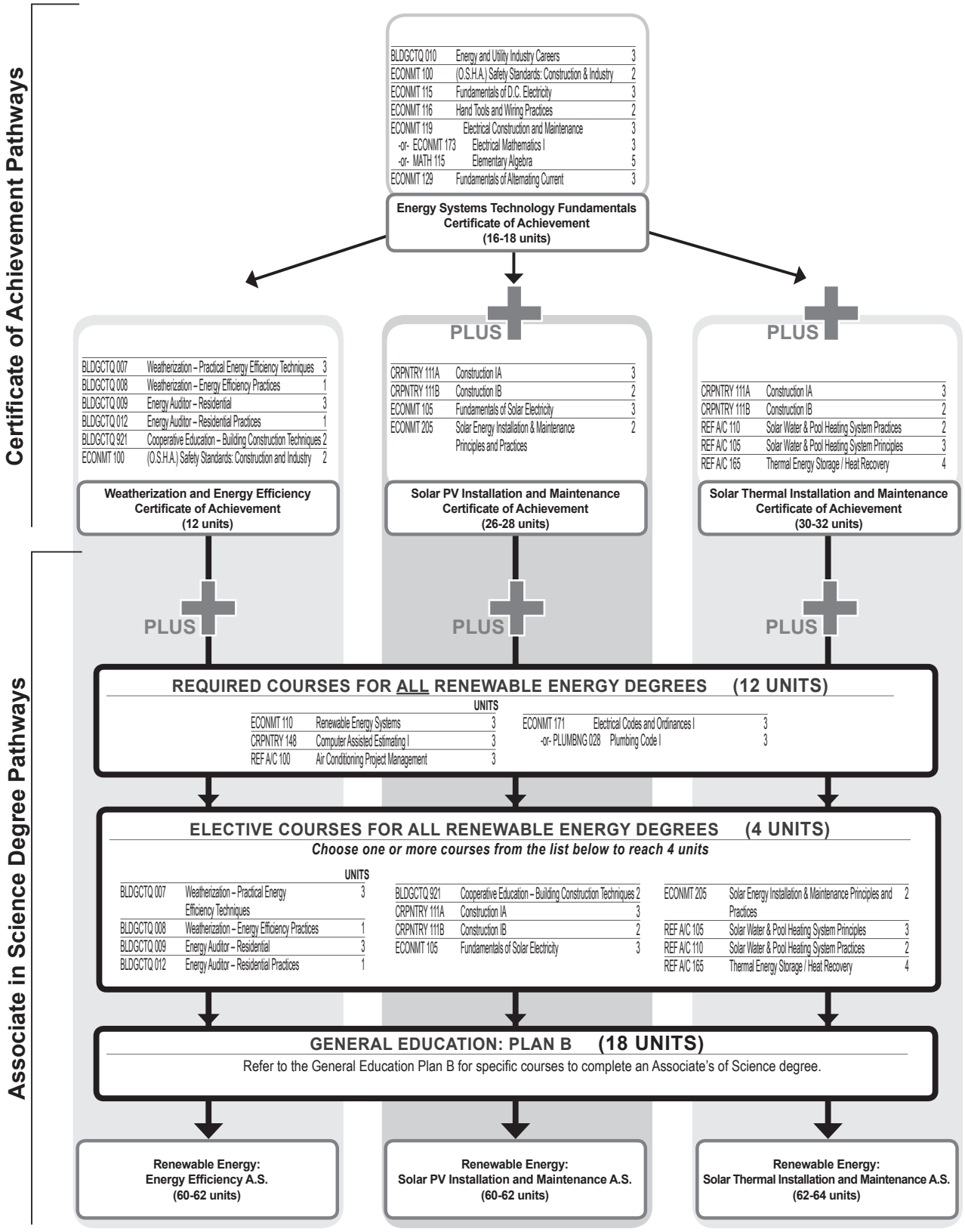
- Use hand and power tools to perform basic utility power-line work such as; hammers, saws, chain-saw, wrenches, and other related equipment.
- Perform calculations and measurements commiserate to entry level power-line work.

REQUIRED COURSES

		UNITS
ECONMT 100	(O.S.H.A.) Safety Standards: Construction & Industry	2
ECONMT 130	Principles of Industrial Electric Power	3
BLDGCTQ 010	Energy and Utility Industry Careers	3
ECONMT 115	Fundamentals of D.C. Electricity	3
ECONMT 116	Hand Tools and Wiring Practices	2
ECONMT 129	Fundamentals of Alternating Current	3
ECONMT 119	Electrical Construction and Maintenance	3
-or- ECONMT 173	*Electrical Mathematics I (3)*	
-or- MATH 115 or higher	*Elementary Algebra (3-5)*	



RENEWABLE ENERGY CERTIFICATE AND DEGREE PATHWAYS



RENEWABLE ENERGY WITH ENERGY EFFICIENCY EMPHASIS

Department: **Construction, Design, and Manufacturing**
Department Chair: **Mr. William (Bill) Elarton, Room SQ-122**
(213) 763-3701, cdm@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Renewable Energy Technician W/ Energy Efficiency Emphasis	A.S.	Plan B	36-38	4	40-42
Weatherization and Energy Efficiency	C		12	-	12
Energy Systems Technology Fundamentals	C		16	-	16
At least 60 degree applicable units (42 total major units and Plan B units) are required to earn an Associate degree.					

PROGRAM OVERVIEW

LATTC offers a series of courses for individuals interested in working in the new, emerging renewable energy and energy efficiency industry. This degree program includes courses that enable individuals to: (1) have the requisite knowledge and skills to obtain employment in the energy/utility sector and (2) obtain skills and expertise to pursue other renewable energy and/or energy efficiency occupations.

By fulfilling the program requirements, students will have the necessary knowledge and skills for a career in residential and commercial renewable energy-related occupations.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree** program, students are able to:

- Basic theory of Solar, Geothermal, Wind, and Methane
- Use hand and power tools, testing equipment, and other P.P.E. related to perform new and retrofit weatherization and related energy efficiency operations.
- Demonstrate sustainable industry principles and practices.
- Perform calculations and measurements related to weatherization and other energy efficiency operations.
- Work independently and interdependently to safely accomplish shared professional outcomes.

RENEWABLE ENERGY TECHNICIAN W/ ENERGY EFFICIENCY EMPHASIS

Associate in Science Degree

Major Units: 40-42

Requirements for the Associate in Science degree in Renewable Energy Technician W/ Energy Efficiency Emphasis may be met by completing 40-42 units of Required Courses along with general education courses meeting Plan B graduation Requirement. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

REQUIRED COURSES

SEMESTER I		UNITS
ECONMT 115	Fundamentals of D.C. Electricity	3
ECONMT 116	Hand Tools and Wiring Practices	2
BLDGCTQ 010	Energy and Utility Industry Careers	3
ECONMT 119	Electrical Construction and Maintenance	3
-or- ECONMT 173	*Electrical Mathematics I (3)*	
-or- MATH 115 or higher Elementary Algebra (3-5)		

SEMESTER II		UNITS
ECONMT 129	Fundamentals of Alternating Current	3
ECONMT 100	(O.S.H.A.) Safety Standards: Construction & Industry	2
CRPNTRY 148	Computer Assisted Estimating I	3

SEMESTER III		UNITS
REF A/C 100	Air Conditioning Project Management	3
ECONMT 110	Renewable Energy Systems	3
BLDGCTQ 007	Weatherization – Practical Energy Efficiency Techniques	3
BLDGCTQ 008	Weatherization - Energy Efficiency Practices	1

SEMESTER IV		UNITS
BLDGCTQ 009	Energy Auditor – Residential	3
BLDGCTQ 012	Energy Auditor – Residential Practices	1
BLDGCTQ 921	Cooperative Education-Building Construction Techniques	2

OTHER COURSE REQUIREMENTS

1 or more courses from the following list of courses		UNITS
ECONMT 105	Fundamentals of Solar Electricity	3
ECONMT 205	Solar Energy Installation & Maintenance Principles and Practices	2
REF A/C 105	Solar Water & Pool Heating System Principles	3
REF A/C 110	Solar Water & Pool Heating System Practices	2
REF A/C 165	Thermal Energy Storage/Heat Recovery	4

WEATHERIZATION AND ENERGY EFFICIENCY

Certificate of Achievement

Major Units: 12

A Certificate of Achievement in Weatherization and Energy Efficiency may be earned by completing 12 units of Required Courses listed, with a "C" or better in each course.

LATTC offers a series of courses for individuals interested in employment as weatherization and energy efficiency specialists. The courses are developed both for new building professionals and for professional builders/contractors already in the workforce in need of these skills. Homeowners may also find the introduction class helpful. Individuals will be prepared to be weatherization, energy efficiency, and retrofit technicians, home improvement retrofit trainees, residential air sealing technicians, insulation installers, energy conservation representatives or residential energy field auditors.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

- Use hand and power tools to perform new and retrofit weatherization and related energy efficiency operations.
- Demonstrate sustainable industry principles and practices.
- Perform calculations and measurements related to weatherization and other energy efficiency operations.

REQUIRED COURSES

		UNITS
BLDGCTQ 007	Weatherization - Practical Energy Efficiency Techniques	3
BLDGCTQ 008	Weatherization - Energy Efficiency Practices	1
BLDGCTQ 009	Energy Auditor – Residential	3
BLDGCTQ 012	Energy Auditor – Residential Practices	1
BLDGCTQ 921	Cooperative Education-Building Construction Techniques	2
ECONMT 100	(O.S.H.A.) Safety Standards: Construction and Industry	2

ENERGY SYSTEMS TECHNOLOGY FUNDAMENTALS

Certificate of Achievement

Major Units: 16

A Certificate of Achievement in Energy Systems Technology Fundamentals may be earned by completing 16 units of Required Courses listed, with a "C" or better in each course.

The goal of the Energy Systems Technology Fundamentals Certificate of Achievement Program is to provide short-term industry-recognized training for entry-level professionals in the utility/energy sector; a significant industry sector in the Los Angeles region.

Skills gained from this program prepare a student for employment at the entry level in jobs such as; Los Angeles Department of Water and Power "Electrical Utility Helper" classification, Southern California Edison's "Utility Helper" position, City of Los Angeles "Electrical Craft Helper".

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

- Use hand and power tools to perform basic utility power-line work such as; hammers, saws, chain-saw, wrenches, and other related equipment.
- Perform calculations and measurements commiserate to entry level power-line work.

REQUIRED COURSES

		UNITS
BLDGCTQ 010	Energy and Utility Industry Careers	3
ECONMT 100	(O.S.H.A.) Safety Standards: Construction & Industry	2
ECONMT 115	Fundamentals of D.C. Electricity	3
ECONMT 116	Hand Tools and Wiring Practices	2
ECONMT 119	Electrical Construction and Maintenance	3
	-or- *ECONMT 173 Electrical Mathematics I (3)*	
ECONMT 129	Fundamentals of Alternating Current	3



RENEWABLE ENERGY TECHNICIAN WITH EMPHASIS IN SOLAR PV INSTALLATION AND MAINTENANCE

Department: **Construction, Design, and Manufacturing**
Department Chair: **Mr. William (Bill) Elarton, Room SQ-122**
(213) 763-3701, cdm@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Renewable Energy Technician With Emphasis in Solar PV Installation and Maintenance	A.S.	Plan B	38	4	42
Solar PV Installation and Maintenance Technician	C		26	-	26
At least 60 degree applicable units (42 total major units and Plan B units) are required to earn an Associate degree. For additional related certificates, refer to programs under Energy Systems Technology Fundamentals.					

PROGRAM OVERVIEW

LATTC offers a series of courses for individuals interested in working in the new, emerging field of solar energy. The courses enable individuals to be prepared to become certified by North American Board of Certified Energy Practitioners (NABCEP). The solar courses have also obtained NABCEP approval. In addition, one of the courses--Fundamentals of Solar Electricity (ECONMT 105—54 hours)--prepares individuals to be able to take the NABCEP Photovoltaic (PV) Entry Level Certificate of Knowledge test. This Certificate program also prepares individuals and is required to successfully complete other renewable energy or energy efficiency Certificate of Achievement and degree programs at the college. As such, it serves as one of the "stackable" certificates in the renewable energy/energy efficiency certificate and degree pathway.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree** program, students are able to:

- Use hand and power tools to perform solar (PV) installation and maintenances work.
- Demonstrate sustainable industry principles and practices.
- Perform calculations and measurements required for solar (PV) installation and maintenance work.
- Work independently and interdependently to safely accomplish shared professional outcomes.

RENEWABLE ENERGY TECHNICIAN WITH EMPHASIS IN SOLAR PV INSTALLATION AND MAINTENANCE

Associate in Science Degree

Major Units: 42

Requirements for the Associate in Science degree in Renewable Energy Technician With Emphasis in Solar PV Installation and Maintenance may be met by completing 42 units of Required Courses with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree** program, students are able to:

- Work independently and interdependently to safely accomplish shared professional outcomes.
- Use hand and power tools to perform solar (PV) installation and maintenances work.

REQUIRED COURSES

SEMESTER I		UNITS
ECONMT 115	Fundamentals of D.C. Electricity	3
ECONMT 116	Hand Tools and Wiring Practices	2
ECONMT 119	Electrical Construction and Maintenance	3
-or- ECONMT 173	*Electrical Mathematics I (3)*	
-or- MATH 115 or higher	*Elementary Algebra (3-5)*	

SEMESTER II		UNITS
ECONMT 105	Fundamentals of Solar Electricity	3
ECONMT 129	Fundamentals of Alternating Current	3
ECONMT 100	(O.S.H.A.) Safety Standards: Construction & Industry	2
CRPNTRY 111A	Construction IA	3

SEMESTER III		UNITS
REF A/C 100	Air Conditioning Project Management	3
ECONMT 110	Renewable Energy Systems	3
CRPNTRY 111B	Construction IB	2
ECONMT 205	Solar Energy Installation & Maintenance Principles and Practices	2
BLDGCTQ 010	Energy and Utility Industry Careers	3

SEMESTER IV		UNITS
CRPNTRY 148	Computer Assisted Estimating I	3

CODE COURSE OPTION – CHOOSE 1 OF THE FOLLOWING

1 or more courses from the following list of courses		UNITS
ECONMT 171	Electrical Codes and Ordinances I	3
PLUMBNG 028	Plumbing Code I	3

OTHER COURSE REQUIREMENTS

1 or more courses from the following list of courses		UNITS
ECONMT 105	Fundamentals of Solar Electricity	3
REF A/C 110	Solar Water & Pool Heating System Practices	2
REF A/C 165	Thermal Energy Storage/Heat Recovery	4
BLDGCTQ 007	Weatherization - Practical Energy Efficiency Techniques	3
BLDGCTQ 008	Weatherization - Energy Efficiency Practices	1
BLDGCTQ 009	Energy Auditor – Residential	3
BLDGCTQ 012	Energy Auditor – Residential Practices	1

SOLAR PV INSTALLATION AND MAINTENANCE TECHNICIAN

Certificate of Achievement

Major Units: 26

Department: **Construction, Design, and Manufacturing**
Department Chair: **Mr. William (Bill) Elarton, Room SQ-122**
(213) 763-3701, cdm@lattc.edu

A Certificate of Achievement in Solar PV Installation and Maintenance may be earned by successfully completing a minimum of 26 units from the required courses listed below with a "C" or better grade in each course. Upon successful completion of this program, a student will have the basic knowledge and skills for employment in the solar PV area of the energy industry at the entry level. (State Control Number: 31081).

PROGRAM OVERVIEW

Program outcomes include; the use of hand and power tools to perform entry level laborer work within the utility energy sector, demonstration of sustainable industry principles and practices, perform calculations & measurements commiserate to entry level laborer work within the utility energy sector, and work independently & interdependently to safely accomplish shared professional outcomes. Skills gained from the program prepare a student for employment with contractors, individual facilities management companies, and other private or public agencies doing energy efficient building or performing energy upgrade retro-fitting on existing residential and commercial buildings.

Recommended sequence of courses for the Solar PV Installation and Maintenance Technician certificate of Achievement.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

- Use hand and power tools to perform solar (PV) installation and maintenance work.
- Demonstrate sustainable industry principles and practices.

REQUIRED COURSE

SEMESTER I		UNITS
ECONMT 119	Electrical Construction and Maintenance	3
or ECONMT 173	*Electrical Mathematics I (3)*	
or MATH 115 or higher	*Elementary Algebra (3-5)*	
ECONMT 115	Fundamentals of D.C. Electricity	3
ECONMT 116	Hand Tools and Wiring Practices	2

SEMESTER II		UNITS
ECONMT 129	Fundamentals of Alternating Current	3
CRPNTRY 111A	Construction IA	3
CRPNTRY 111B	Construction IB	2
ECONMT 100	(O.S.H.A.) Safety Standards: Construction & Industry	2

SEMESTER III		UNITS
BLDGCTQ 010	Energy and Utility Industry Careers	3
ECONMT 105	Fundamentals of Solar Electricity	3
ECONMT 205	Solar Energy Installation & Maintenance Principles and Practices	2

RENEWABLE ENERGY TECHNICIAN W/ SOLAR THERMAL EMPHASIS

Department: **Construction, Design, and Manufacturing**
Department Chair: **Mr. William (Bill) Elarton, Room SQ-122**
(213) 763-3701, cdm@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Renewable Energy Technician with Emphasis in Solar Thermal	A.S.	Plan B	38	4	42
Solar Thermal Installation and Maintenance Technician	C		30	-	30
At least 60 degree applicable units (42 total major units and Plan B units) are required to earn an Associate degree. For additional related certificates, refer to programs under Energy Systems Technology Fundamentals.					

PROGRAM OVERVIEW

LATTC offers a series of courses for individuals interested in working in the new, emerging renewable energy and energy efficiency industry. This degree program includes courses that enable individuals to: (1) have the requisite knowledge and skills to obtain employment in the energy/utility sector, (2) be prepared to obtain solar thermal installation and maintenance entry-level occupations, and (3) obtain skills and expertise to pursue other renewable energy and/or energy efficiency occupations.

By fulfilling the program requirements, students have the necessary knowledge and skills for a career in residential and commercial solar thermal and renewable energy-related occupations.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students will be able to:

- Use hand and power tools to perform solar thermal installations & maintenance work.
- Demonstrate sustainable industry principles and practices.
- Perform calculations & measurements required for solar thermal work.
- Work independently & interdependently to safely accomplish shared professional outcomes.

RENEWABLE ENERGY TECHNICIAN W/ SOLAR THERMAL EMPHASIS

Associate in Science Degree

Major Units: 42

Requirements for the Associate in Science degree in Renewable Energy Technician with Emphasis in Solar Thermal may be met by completing 38 units of Required Courses and 4 units of Major Electives with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

REQUIRED COURSES

SEMESTER I		UNITS
ECONMT 115	Fundamentals of D.C. Electricity	3
ECONMT 116	Hand Tools and Wiring Practices	2
ECONMT 119	Electrical Construction and Maintenance	3
- or - ECONMT 173	*Electrical Mathematics I (3)*	
- or - MATH115 or higher	*Elementary Algebra (3-5)*	

SEMESTER II		UNITS
REF A/C 105	Solar Water & Pool Heating System Principles	3
ECONMT 129	Fundamentals of Alternating Current	3
ECONMT 100	(O.S.H.A.) Safety Standards: Construction & Industry	2
CRPNTRY 111A	Construction IA	3

SEMESTER III		UNITS
REF A/C 100	Air Conditioning Project Management	3
ECONMT 110	Renewable Energy Systems	3
CRPNTRY 111B	Construction IB	2
BLDGCTQ 010	Energy and Utility Industry Careers	3
REF A/C 110	Solar Water & Pool Heating System Practices	2
REF A/C 165	Thermal Energy Storage/Heat Recovery	4

SOLAR THERMAL INSTALLATION AND MAINTENANCE TECHNICIAN

Certificate of Achievement

Units: 30

A Certificate of Achievement in Solar Thermal Installation and Maintenance may be earned by successfully completing a minimum of 30 units from the required courses listed below with a "C" or better grade in each course. Upon successful completion of this program a student will have the basic knowledge and skills for employment in the solar thermal area of the energy industry at the entry level. (State Control Number #31082).

PROGRAM OVERVIEW:

Program outcomes include; the use of hand and power tools to perform entry level laborer work within the solar thermal energy sector, demonstration of sustainable industry principles and practices, perform calculations & measurements commiserate to entry level laborer work within the utility energy sector, and work independently & interdependently to safely accomplish shared professional outcomes. Skills gained from the program prepare a student for employment with contractors, individual facilities management companies, and other private or public agencies doing energy efficient building or performing solar thermal energy upgrade retro-fitting on existing residential and commercial buildings.

Recommended sequence of courses for the Solar Thermal Installation and Maintenance Technician Certificate of Achievement.

SEMESTER I		UNITS
ECONMT 119	Electrical Construction and Maintenance	3
or ECONMT 173	*Electrical Mathematics I (3)*	
or MATH 115 or higher	*Elementary Algebra (3-5)*	
ECONMT 115	Fundamentals of D.C. Electricity	3

SEMESTER II		UNITS
CRPNTRY 111A	Construction IA	3
REF A/C 105	Solar Water & Pool Heating System Principles	3
REF A/C 110	Solar Water & Pool Heating System Practices	2
ECONMT 129	Fundamentals of Alternating Current	3

SEMESTER III		UNITS
CRPNTRY 111B	Construction IB	2
REF A/C 165	Thermal Energy Storage/Heat Recovery	4
ECONMT 100	(O.S.H.A.) Safety Standards: Construction & Industry	2
BLDGCTQ 010	Energy and Utility Industry Careers	3
ECONMT 116	Hand Tools and Wiring Practices	2

RESTAURANT MANAGEMENT

Department: **Culinary Arts/Professional Baking**
Department Chair: **Mr. Steve Kasmar, Room SA-118**
(213) 763-7332, KasmarSL@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Restaurant Management	A.A.	Plan B	42	-	42
At least 60 degree applicable units (42 total major units and Plan B units) are required to earn an Associate degree. For additional related degrees and certificates, refer to programs under Baking Professional and Culinary Arts.					

PROGRAM OVERVIEW

The Greater Los Angeles area needs qualified individuals who can lead the numerous hotel, restaurant, and catering kitchens in our region. The Restaurant Management program at LATTC offers a foundation in management theory, cooking fundamentals, sanitation, safety and restaurant supervision. Students practice and demonstrate culinary and management skills in a working foodservice facility located on the college campus.

The Restaurant Management program provides a foundation in kitchen fundamentals including preparation of hot and cold sauces, vegetable and meat cookery, identifying accounting procedures and reports, operating kitchen equipment, and knowledge of management theory and supervision techniques.

By fulfilling the program requirements, students are prepared to find positions as restaurant managers, assistant managers, kitchen managers, dining room managers, or kitchen supervisors.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree** program, students are able to:

- Practice and demonstrate culinary and management skills in a working foodservice facility on a college campus.
- Demonstrate foundational kitchen fundamentals, including operating kitchen equipment.
- Employ management and supervision techniques.
- Utilize accounting procedures and reports.

RESTAURANT MANAGEMENT

Associate in Arts Degree

Major Units: 42

Requirements for the Associate in Arts degree in Restaurant Management may be met by completing 42 units of Required Courses with a grade of "C" or better in each course along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

REQUIRED COURSES

SEMESTER I		UNITS
CLN ART 111	Culinary Arts Orientation I	4
CLN ART 112	Sanitation and Safety	2
CLN ART 120	Front of House Dining Room Services	4
CLN ART 170	Culinary Nutrition	2
SEMESTER II		**UNITS**
ACCTG 021	Bookkeeping and Accounting I	3
RESTMGT 100	Restaurant Management	3
SEMESTER III		**UNITS**
CLN ART 121	Garde Manger I - Baking	6
CLN ART 122	Garde Manger II - Charcuterie	6
SEMESTER IV		**UNITS**
CLN ART 131	Culinary Arts - Breakfast I	6
CLN ART 235	Menu Planning & Purchasing	4
CLN ART 240	Restaurant Supervision & Training	2

NOTE: Most Baking/Culinary Arts courses have prerequisites and/or co-requisites. Refer to the Course Descriptions section of the catalog for additional details.

RETAIL MANAGEMENT

Department: **Business and Entrepreneurial Related Programs**
Department Chair: **Benjamin Goldstein, JH-523**
213-763-7051, GoldstBD@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Retail Management (Transfer)	A.A.	Plan B	47		47
At least 60 degree applicable units (47 total major units and Plan B units) are required to earn an Associate degree.					

PROGRAM OVERVIEW

The Retail Management AA is a comprehensive college program designed to prepare current and future retail employees for a fast-paced and competitive retail environment. This program-designed in collaboration with retail industry leaders-will provide the student with the competencies required to succeed at the management level within the dynamic retail industry.

† Course currently unavailable

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree** program, students are able to:

- Demonstrate the technical and leadership competencies required to succeed at the management level within the dynamic retail industry.

RETAIL MANAGEMENT

Associates in Arts Degree

Major Units: 47

Requirements for the Associate in Arts degree in Retail Management may be met by completing 47 units of Required Courses with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

REQUIRED COURSES

SEMESTER I		UNITS
CAOT 082	Microcomputer Software Survey in the Office	3
MARKET 040	Retail Management	3
MARKET 001	Principles of Selling	3
BUS 001	Introduction to Business	3

SEMESTER II		UNITS
MARKET 021	Principles of Marketing	3
BUS 033	Technical Report Writing	3
-or- ENGLISH 101	*College Reading and Composition I (3)*	
ACCTG 001	Introductory Accounting I	5

SEMESTER III		UNITS
BUS 005	Business Law I	3
SUPV 011	Oral Communications	3
-or- BUS 032	*Business Communications (3)*	
-or- COMM 101	*Public Speaking (3)*	
ECON 002	Principle of Economics II	3
BUS 038	Business Computations	3

SEMESTER IV		
SUPV 003	Human Relations (Developing Supervisory Leadership)	3
MGMT 033	Personnel Management	3

NOTE: TRANSFER—Students interested in transferring to a four-year college or university should visit the University Transfer Center or meet with a counselor to select appropriate transferable courses.

MAJOR ELECTIVES

Select at least 6 units from the courses below		UNITS
ACCTG 018	Computerized Payroll Accounting	3
CAOT 085	Spreadsheet Analysis	3
MARKET 011	Fundamentals of Advertising	3
MGMT 002	Organization and Management Theory	3
MGMT 013	Small Business Entrepreneurship	3
SUPV 001	Elements of Supervision	3

† Course currently unavailable

SIGN GRAPHICS

Department: **Design and Media Arts**
Department Chair: **Ms. Carole Anderson, Room CY-222**
(213) 763-3642, AndersCL@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Sign Graphics	A.A.	Plan B	40	4	44
Sign Graphics	C		40	4	44

At least 60 degree applicable units (44 total major units and Plan B units) are required to earn an Associate degree.

For additional related degrees and certificates, refer to Visual Communications.

PROGRAM OVERVIEW

Sign makers design and produce signs to advertise and identify businesses, industries, public services, entertainment, as well as other areas. Students learn how to design and execute a wide variety of signs including temporary signs such as posters and paper banners plus permanent signs on wood, metal, canvas, vehicles, walls and glass. Students learn the fundamentals of lettering, design, composition, and color, while practicing hand and eye coordination. Students also learn to both draw and brush a diverse set of alphabets and a variety of interior and exterior signs. In addition, students study how to design and execute signs on sign specific software including patterns, vinyl lettering, and vinyl application plus how to use plotters, scanners, and clip art images.

Many sign makers are self-employed, work freelance or are employed in a commercial sign shop. Employment opportunities are competitive and only those with good hand skills and knowledge have the best chance for employment. Specialty skill instruction like dimensional letters, sandblasted signs, gold leaf and high-end layout and design are offered to advanced students. Advanced students participate in a business module for pricing and eventual self-employment.

By fulfilling the program requirements, students are proficient in basic hand lettering, sign design and layout, the production of temporary signs, exterior permanent signs, window signs and specialty signs, computer operation including printing, cutting and applying vinyl lettering and general production skills needed to complete a successful sign. Students will also understand basic pricing and sales techniques, record keeping or small business operation, and obtaining licenses.

Elective courses in silk screening and mural painting are also offered in this program. Silk screening is a printing method for multiple or large number jobs. The student will learn how to make a screen, cut a variety of stencils, prepare the screen and print an image. Proper ink usage and clean-up will be taught. Students will print on a variety of substrates including multicolor prints on T-shirts.

In the mural painting course, techniques for producing large format murals are taught using a variety of methods including the grid method. Students will learn layout and design, pattern making and transferring artwork to the wall. Surface preparation, paints, tools and brushes will also be covered.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Design, layout and produce a sign to industry standards using hand lettering techniques and the latest digital printing options.

SIGN GRAPHICS

Associate in Arts Degree

Major Units: 44

Requirements for the Associate in Arts degree in Sign Graphics may be met by completing with a "C" or better 40 units of Required Courses and 4 units of Major Electives along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

REQUIRED COURSES

SEMESTER I		UNITS
SGNGRPH 101	Individual Lettering	10
SEMESTER II		**UNITS**
SGNGRPH 102	Exterior Display Signs	10
SEMESTER III		**UNITS**
SGNGRPH 103	Window Signs	10
SEMESTER IV		**UNITS**
SGNGRPH 104	Advanced Computer and Design	10

MAJOR ELECTIVES

Select at least 4 units from the courses below		UNITS
VISCOM 110 †	Occupational Information	2
VISCOM113 †	Visual Communications – Color I	2
SGNGRPH 201	Fundamentals of Mural Painting	2
SGNGRPH 203	Silk Screen Processing I	2
SGNGRPH 204	Silk Screen Processing II	2
SGNGRPH 211	Automotive Graphics	2
SGNGRPH 212	Sign Design and Layout	2

SIGN GRAPHICS

Certificate of Achievement

Major Units: 44

A Certificate of Achievement in Sign Graphics may be earned by completing 40 units of Required Courses and 4 units of Major Electives listed under for the Associates degree in Sign Graphics with a "C" or better in each course.

† Course currently unavailable

SKIN THERAPY

Department: Cosmetology
Department Chair: Mr. Elton Robinson, Room MH-241E
(213) 763-7138, RobinsEJ@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Skin Therapy	C		24	-	24
For additional related degrees and certificates, refer to programs under Cosmetology.					

PROGRAM OVERVIEW

The Trade Tech Skin Therapy Program offers training and technical instruction of; manual, electrical and chemical facials, temporary hair removal, makeup, chemistry, health, safety, electricity, spa ecology, anatomy and physiology .The LATTC Skin Therapy program prepares student to pass the State Board examination and integrates a mock State Board written and practical exam to further familiarize students with the process.

The Skin Therapy program prepares students for entry level positions that include but are not limited to; skin therapists, spa managers, educators, makeup artist, holistic skin care professionals, business owners, product & equipment sales representatives or managers.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

- Perform, practice, and demonstrate all areas of skin care while observing the safety and sanitation rules set forth by the California Board of Barbering and Cosmetology.
- Take the written and practical California Board of Barbering and Cosmetology Licensure for Esthetician Examination.
- Demonstrate skills and knowledge of skin care necessary to build and maintain ongoing clientele, good work ethic, resumes building, employment guidelines, tracking and maintaining business transactions for the esthetician spa environment and industry.

SKIN THERAPY

Certificate of Achievement

Major Units: 24

A Certificate of Achievement in Skin Therapy may be earned by completing 24 units of Required Courses listed with a grade of "C" or better in each course.

REQUIRED COURSES

		UNITS
CSMTLGY 035	Skin Therapy I	6
CSMTLGY 036	Skin Therapy II	6
CSMTLGY 037	Skin Therapy III	6
CSMTLGY 038	Skin Therapy IV	6

SMALL BUSINESS ENTREPRENEURSHIP

Department: **Business and Entrepreneurial Related Programs**
Department Chair: **Benjamin Goldstein, JH-523**
213-763-7051, GoldstBD@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Small Business Entrepreneurship	C		32	-	32

PROGRAM OVERVIEW

The Small Business Entrepreneurship Certificate of Achievement is designed to provide prospective small business owners/entrepreneurs with the principals involved in planning and operating a small business. Students will acquire the tools skills, and knowledge necessary for successful start up and the fundamentals for sustainable success. Particular interest is placed on evaluating potential business opportunities, the development of dynamic business plans, small business problem recognition and solutions, record-keeping, effective marketing strategies, human relations and personnel management and efficient/effective operating principles.

Students will also gain technical and business expertise through classroom and hands on field experiences with a strong emphasis on entrepreneurship and lifelong learning. By fulfilling the program requirements, students will be proficient in startup strategies and practices needed to transform an initial entrepreneurial idea into a viable business operation, which will enable them to prosper in the ever changing small business environment..

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

- Students will be able identify business problems and solutions.
- Students will be able to construct small business financial statements.
- Students will be able to demonstrate competence in financial accounting processes and systems.
- Students will be able to effectively communicate both orally and writing.

SMALL BUSINESS ENTREPRENEURSHIP

Certificate of Achievement

Major Units: 32

A Certificate of Achievement in Small Business Entrepreneurship may be earned by completing 32 units of Required Courses listed, with a "C" or better in each course.

REQUIRED COURSES

SEMESTER I		UNITS
BUS 038	Business Computations	3
BUS 005	Business Law I	3
MGMT 013	Small Business Entrepreneurship	3
MARKET 001	Principles of Selling	3
CAOT 082	Microcomputer Software Survey in the Office	3

SEMESTER II		UNITS
SUPV 001	Elements of Supervision	3
-or- MGMT 033	*Personnel Management (3)*	
ACCTG 001	Introductory Accounting I	5
MARKET 021	Principles of Marketing	3
SUPV 011	Oral Communications	3
CAOT 085	Microcomputer Office Applications: Spreadsheet	3

SOLID WASTE MANAGEMENT TECHNOLOGY

Department: **Construction, Design, and Manufacturing**
Department Chair: **Mr. William (Bill) Elarton, ROOM SQ-122**
(213) 763-3701, ElartoWD@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Solid Waste Management Technology	C		12	12	24

PROGRAM OVERVIEW

The program is designed for any interested individuals seeking to learn the most updated information in recycling and solid waste management. The program addresses environmental, technological, political, legal, planning and economic aspects of recycling and solid waste management policies.

By fulfilling the program requirements, students are prepared and advance in the Solid Waste Management industry to work as a Solid Waste Operator, Solid Waste Technician, Solid Waste Supervisor, Hazardous Waste Operator, or Environmental Specialist.

† Course currently unavailable

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

- List & discuss the sources of solid waste and its treatment technology.
- Describe the solid waste stream and the treatment processes and process control strategies.
- Correctly utilize basic mathematical operations as applied to entry level solid waste calculations and measurements.

SOLID WASTE MANAGEMENT TECHNOLOGY

Certificate of Achievement

Major Units: 24

A Certificate of Achievement in Solid Waste Management Technology may be earned by completing 12 units of Required Courses and 12 units of Major Electives listed with a "C" or better in each course.

Students completing the Certificate program will be proficient in performing the duties involved in landfill management including collection, transportation, storage and disposal.

REQUIRED COURSES

		UNITS
SWM TEK 101	Introduction to Solid Waste Management	3
SWM TEK 102	Collection Systems, Routing and Management	3
SWM TEK 107	Waste Reduction and Recycling	3
SWM TEK 108	Solid Waste Facilities	3

MAJOR ELECTIVES

Select at least 12 units from the courses below		UNITS
CHEM 051	Fundamentals of Chemistry I	5
GEOLOGY 001	Physical Geology	3
LABR ST 002	Collective Bargaining	3
LABR ST 003	Labor Relations Law	3
MGMT 002	Organization and Management Theory	3
MGMT 033	Personnel Management	3
MICRO 020	General Microbiology	4
SUPV 002 †	Basic Psychology for Supervisors	3
WASTE 012	Wastewater Operations I	3

† Course currently unavailable

STREET MAINTENANCE TECHNOLOGY

Department: Construction, Design, and Manufacturing
Department Chair: Mr. William (Bill) Elarton, ROOM SQ-122
(213) 763-3701, ElartoWD@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Street Maintenance Technology	A.A.	Plan A	30	-	30
Street Maintenance Technology	C		30	-	30
At least 60 degree applicable units (30 total major units and Plan A units) are required to earn an Associate degree.					

PROGRAM OVERVIEW

The Street Maintenance Technology program is designed primarily for those involved in public works maintenance operations. Asphaltic and concrete pavement, construction, plan reading, calculation of materials, state and municipal codes, report writing, and heavy equipment operation and maintenance are some of the skills required in this field. To meet the training needs of persons interested in becoming a street maintenance worker, LATTC offers a Street Maintenance Associate degree and a Certificate of Achievement.

The street maintenance field has evolved into a broader category of workers. Workers in this arena are primarily employed by governmental agencies that perform maintenance operations on public highways and streets. Professionals in this field are involved at the ground level through upper level management.

By fulfilling the program requirements, students will have the necessary knowledge and skills for a career as a Street Services Worker. Knowledge and skills will be mastered in the area of installation and maintenance of various types of street construction and material including asphalt and concrete. Students will also gain the supervisory skills needed to be promoted into management.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Use hand and power tools such as jackhammers, bucket trucks, sweeper vehicles, basic hand operated tools and related PPE to perform street services work.
- Perform calculations and measurements such as; area, volume, estimation, etc. required for street services work.
- Employability evaluation, such as; soft skills and the ability to work independently and interdependently to safely accomplish shared professional outcomes.

STREET MAINTENANCE TECHNOLOGY

Associate in Arts Degree

Major Units: 30

Requirements for the Associate in Arts degree in Street Maintenance Technology may be met by completing 30 units of Required Courses with a "C" or better, along with the general education courses meeting Plan A graduation requirements. Information on the Plan A requirements may be found in the catalog under Graduation/Transfer Requirements.

REQUIRED COURSES

		UNITS
ST MAIN 103	Street Maintenance (Applied Calculations In Public Works)	3
ST MAIN 200	Survey of Street Services	3
ST MAIN 201	Street Maintenance I	3
ST MAIN 202	Street Maintenance II	3
ST MAIN 203	Street Maintenance III	3
ST MAIN 204	Report Writing For Public Works	3
ST MAIN 205	Issues And Practices In Public Works	3
ST MAIN 206	Street Maintenance VI	3
ST MAIN 207	Street Maintenance VII	3
ST MAIN 208	Street Maintenance Technology	3

MAJOR ELECTIVES

		UNITS
ST MAIN 209	Drivers License Preparation (Class "B")	2
ST MAIN 210	Motor Sweeper Operator	3

STREET MAINTENANCE TECHNOLOGY

Certificate of Achievement

Major Units: 30

A Certificate of Achievement in Street Maintenance Technology may be earned by completing 30 units of Required Courses listed under for the Associates degree in Street Maintenance Technology with a "C" or better in each course.

TAILORING

Department: Design and Media Arts
Department Chair: Ms. Carole Anderson, Room CY-222
(213) 763-3642, AndersCL@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Tailoring	C		12	8	20
For additional related degrees and certificates, refer to programs under Fashion Design and Fashion Merchandising. For additional related degrees and certificates, refer to programs under Fashion and Fashion Merchandising.					

PROGRAM OVERVIEW

The LATTC Tailoring Certificate program is uniquely designed for the working adult. Courses are offered during evening and weekend hours and cover all aspects of the pattern making and construction techniques necessary to complete tailored garments. Courses include construction techniques for bespoke men's and women's garments including trousers, jackets and coats. Tailors are distinctly different from dressmakers in that they are specialized in constructed garments such as jackets, coats and trousers or slacks.

The skills for custom tailoring are always in demand. Stylists work with tailors to outfit sports figures, celebrities, and specialty customers. Costume designers work with tailors to create multiple versions of garments needed in film production, and customers seeking individual design and fit seek out the assistance of professional tailors.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

- Use custom and industry techniques to draft and create tailored men's style clothing.

TAILORING

Certificate of Achievement

Major Units: 20

A Certificate of Achievement in Tailoring may be earned by completing 12 units of Required Courses and 8 units of Major Electives listed, with a "C" or better in each course.

The Tailoring Certificate of Achievement prepares students to construct trousers, jackets, vests and coats for personal fit and for custom tailoring. Upon completion of the program, students are able to draft patterns as well as construct tailored garments.

REQUIRED COURSES

		UNITS
TAILRNG 250	Tailoring Techniques I	2
TAILRNG 251	Tailoring Techniques II	2
TAILRNG 252	Tailoring Techniques III	2
TAILRNG 253	Tailoring Techniques IV	2
TAILRNG 255	Men's Pattern Drafting I	2
TAILRNG 256	Men's Pattern Drafting II	2

MAJOR ELECTIVES

Select at least 8 units from the courses below		UNITS
FASHDSN 101 †	Introduction to Fashion Design	2
FASHDSN 118	Advanced Clothing Construction	2
FASHDSN 126	Manufacturing and Design Room Process	1
FASHDSN 137	Bustier Creation	2
FASHDSN 138	Tailoring Techniques for Ready to Wear	2
FASHDSN 140	Advanced Draping and Design	2
FASHDSN 147	Fashion Show Production	2
FASHDSN 148	Activewear Design	2
FASHDSN 151	Advanced Fashion Art and Design	2
FASHDSN 941	Cooperative Education-Fashion Design	4
FASHMER 001	Entrepreneurial Fashion	3
FASHMER 020	Apparel Product Development	3
FASHMER 025	Fashion Industry Interchange	3
FASHMER 030	Wholesale Merchandising	3
FASHMER 050	International Business	3
FASHDSN 222	Sample Making And Design I	2
FASHDSN 223	Sample Making And Design II	2
FASHDSN 224	Sample Making And Design III	2
FASHDSN 225	Pattern Making And Design I	2
FASHDSN 226	Pattern Making And Design II	2
FASHDSN 227	Pattern Making And Design III	2
FASHDSN 228	Pattern Grading And Design I	2
FASHDSN 229	Pattern Grading And Design II	2
FASHDSN 230 †	Contemporary Garment Construction Techniques	1
FASHDSN 231 †	Contemporary Pattern Making Techniques	1
FASHDSN 236	Fashion Sketching And Design I	2
FASHDSN 237	Fashion Sketching And Design II	2
FASHDSN 238	Fashion Sketching And Design III	2
FASHDSN 239	Gown Draping And Design I	2
FASHDSN 240	Gown Draping And Design II	2
FASHDSN 241	Gown Draping And Design III	2
FASHDSN 244	Computer Fashion Art	2
FASHDSN 250	Beginning Computer Apparel Systems	2
FASHDSN 251 †	Advanced Computer Apparel Systems	2
FASHDSN 252 †	Apparel Manufacturing Process	3
FASHDSN 255	Computerized Product Design	2
FASHDSN 256	CAD Apparel Pre-Production Techniques	2
FASHDSN 257	Apparel Pattern Design Systems	2
FASHDSN 258	Computer-Aided Pattern Systems	2
FASHDSN 259 †	CAD Apparel Design (Gerber Artworks)	2
FASHDSN 262 †	Introduction To CAD Design And Pre-Production Applications	2
FASHDSN 264	Apparel Computer Systems Analysis	2
FASHDSN 270	Illustrator For Fashion Design	2
FASHDSN 285	Directed Study - Fashion Design	2

VISUAL COMMUNICATIONS

Department: **Design and Media Arts**
Department Chair: **Ms. Carole Anderson, Room CY-222**
(213) 763-3642, AndersCL@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Visual Communications	A.A.	Plan B	46	2	48
Visual Communications	C		46	2	48

At least 60 degree applicable units (48 total major units and Plan B units) are required to earn an Associate degree.

For additional related degrees and certificates, refer to programs under Sign Graphics.

PROGRAM OVERVIEW

The Visual Communications program at LATTC is the starting point for exciting careers in animation, art direction, digital imaging, graphic design, illustration, multi-media, web design and other related fields. The fast paced two-year program begins with fundamentals: color, design, drawing, prepress and typography. Advanced levels create finished portfolios on a Macintosh computer, utilizing industry standard digital software. Student portfolios demonstrate creativity and discipline, displaying dynamic art sensibilities and creating visual solutions for problems of marketing and publishing. The Visual Communications program focuses on four core areas:

- GRAPHIC DESIGN: Beginning levels will study the areas of layout and design, typography, and advertising concepts. Advanced levels will develop logos and corporate identity programs, design brochures with extended text, and create original magazine advertising, which is directed to specific audience demographics. Problem solving, brainstorming and computer training will receive equal emphasis. Graduating student portfolios incorporate a wide variety of projects showcasing the student's ability to conceptualize, design and use typography as a communication tool.

- DRAWING: Beginning levels will study freehand observational drawing, perspective and the principles of light and shade. Black and white mediums will be explored in pencil, markers and ink. Advanced levels create comprehensive layouts in color marker and pencil as preliminary development. Finished designs and illustrations for advertising and on-line usage are then created traditionally or digitally and serve as portfolio samples.

- DIGITAL PREPRESS: Thorough study of the preparation of art, graphics, photography, and typography for reproduction in print. Beginning levels concentrate on understanding the mechanics of color separations and print specifications. This knowledge is then applied as students create digital files that utilize specific print requirements. Advanced levels prepare complex graphic computer files for output at commercial printers.

† Course currently unavailable

- COMPUTER GRAPHICS: The creation of art and design on the computer requires mechanical know-how and considerable familiarization with the workings of several graphic software applications. The Visual Communications program offers instruction in Adobe Creative Suites: Acrobat, Dreamweaver, Flash, Fireworks, Illustrator, InDesign and Photoshop and HTML. Graduating student portfolios demonstrate familiarization with each of these software applications and an ability to manipulate each for specific uses and creative affects.

Today's commercial marketplace for artists has never been more available. Flash motion graphics and web design have initiated new and creative directions. Traditional artists and conventional designers continue as before but have incorporated digital software within their accomplished collection of talents. This blending of tradition and technology is the primary emphasis within the Visual Communications program.

By fulfilling the program requirements, students can pursue many different creative careers. While it is advisable for students to continue higher education, many graduates have entered the workplace upon completion of the Visual Communications program alone, realizing creative and financial success. Graduating students acquire visual sensitivities with respect to type, images and graphics; they are trained in the visual software used by industry, and understand marketing as it applies to commercial art. Additionally, graduates market their work appropriately to specific audiences for freelance opportunities.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree/Certificate** program, students are able to:

- Apply creative and marketing concepts to original design layouts that reflect Graphic Design industry standards
- and demonstrate technical proficiency, aesthetic sensitivity, and refinement with traditional artist tools.

VISUAL COMMUNICATIONS

Associate in Arts Degree

Major Units: 48

Requirements for the Associate in Arts degree in Visual Communication may be met by completing with a "C" or better 46 units of Required Courses and 2 units of Major Electives along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

REQUIRED COURSES

SEMESTER I		UNITS
VISCOM 100	Graphic Design I	2
VISCOM 103	Basic Computer Systems	2
VISCOM 105	Digital Prepress I	2
VISCOM 106	Drawing I	2
VISCOM 108	2D Design Fundamentals	2
VISCOM 118	Digital Drawing	2

SEMESTER II		UNITS
VISCOM 112	Digital Prepress II	2
VISCOM 114	Digital Typesetting	2
VISCOM 115	Graphic Design II	2
VISCOM 116	Three-Dimensional Package Design	2
VISCOM 119	Digital Page Layout	2
VISCOM 129	Digital Photo Manipulation	2

SEMESTER III		UNITS
VISCOM 120	Drawing II	2
VISCOM 124	Computer Illustration I	2
VISCOM 126	Portfolio Development I	2
VISCOM 127	Digital Prepress III	2
VISCOM 128	Designing Logos and Trademarks	2
VISCOM 135	Web Page Graphics on the Macintosh	2

SEMESTER IV		UNITS
VISCOM 130	Drawing III	2
VISCOM 131	Computer Illustration II	2
VISCOM 132	Portfolio Development II	2
VISCOM 133	Digital Portfolio Preparation	2
VISCOM 134	Graphic Design Business Practices	2

MAJOR ELECTIVES

Select at least 2 units from the courses below		UNITS
VISCOM 204	Flash Motion Graphics (Beginning Level)	2

VISUAL COMMUNICATIONS

Certificate of Achievement

Major Units: 48

A Certificate of Achievement in Visual Communication may be earned by completing with a "C" or better 46 units of Required Courses and 2 units of Major Electives listed under for the Associates degree in Visual Communication with a "C" or better in each course.

WATER SYSTEMS TECHNOLOGY

Department: Construction, Design, and Manufacturing
Department Chair: Mr. William (Bill) Elarton, Room SQ-122
(213) 763-3701, ElartoWD@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Wastewater Systems Technology	A.S.	Plan A	21	-	21
Water System Technology: Supply Water Technology	A.S.	Plan A	22	-	22
Supply Water Technology	C		22	-	22
At least 60 degree applicable units (total major units and Plan A units) are required to earn an Associate degree. For additional related degrees and certificates, refer to Plumbing.					

PROGRAM OVERVIEW

Projected retirements of existing operators and expansion of the industry will fuel the demand for occupations in Supply Water Distribution. The net result of these shifts will be increased openings for personnel in all areas: plant operations, distribution/collection field maintenance, administration, customer service, line supervision, meter readers, engineers, and plant maintenance. The Water Systems Technology program at LATTC offers students a choice of two concentrations within water systems industry:

The Water Systems Technology program at LATTC offers students a choice of two concentrations within water systems industry

- WASTEWATER OPTION offers courses focusing on preliminary, primary, secondary, and tertiary treatment systems as well as disinfection methods, solids treatment, and solids and effluent disposal practices.
- SUPPLY WATER OPTION offers courses focused on the operation and design of water systems, wells, pumps and meters; water treatment for potable water; and technical phases of automatic controls, including power and code considerations.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree** program, students are able to:

- Discuss Regulations governing wastewater treatment and organizations involved.
- Describe the supply water treatment processes and process control strategies.
- Correctly utilize advanced mathematical operations when presented with applied wastewater calculations and measurements.

† Course currently unavailable

WASTEWATER SYSTEMS TECHNOLOGY

Associate in Science Degree

Major Units: 21

Requirements for the Associate in Science degree in Wastewater Systems Technology may be met by completing 21 units of Required Courses with a "C" or better, along with general education courses meeting Plan A graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

In the State of California, there are five operator grade levels of profession in operating and maintaining publicly owned wastewater treatment facilities. Each grade level requires passing an examination administered by the State of California, after meeting qualifying experience and educational requirements. An Associates degree and 6 years of performance of an Operator Duty while holding a certificate, qualifies a person to be promoted to grade five level.

REQUIRED COURSES

		UNITS
WASTE 012	Wastewater Operations I	3
WASTE 013	Wastewater Operations II	3
WASTE 014	Wastewater Operations III	3
WASTE 015	Wastewater Operations IV	4
WASTE 016	Wastewater Operations V	3
WASTE 017	Wastewater Operations VI	3
WASTE 018	Water & Wastewater Mathematics	3

WATER SYSTEM TECHNOLOGY: SUPPLY WATER TECHNOLOGY

Associate in Science Degree

Major Units: 22

Requirements for the Associate in Science degree in Water Systems Technology: Supply Water Technology may be met by completing 22 units of Required Courses along with general education courses meeting Plan A graduation requirements. Information on the Plan A requirements may be found in the catalog under Graduation/Transfer Requirements.

By fulfilling the program requirements, students are prepared for certification by the American Water Works Association (AWWA) as well as the State Department of Health. Students will also have the background to advance in the Supply Water Industry.

REQUIRED COURSES

		UNITS
WATER 001	Water Distribution I	3
WATER 002	Water Distribution II	3
WATER 003 †	Water System Controls	3
WATER 004	Water Purification I (Potable)	3
WATER 005	Water Purification II (Potable)	3
PLUMBNG 026	Plumbing Layout and Estimating I	3
PLUMBNG 031	Backflow Prevention Devices	3
PLUMBNG 185	Directed Study-Plumbing	1

† Course currently unavailable

MAJOR ELECTIVES

		UNITS
BUS 032	Business Communications	3
BUS 033	Technical Report Writing	3
MATH 115	Elementary Algebra	5
SUPV 002 †	Basic Psychology for Supervisors	3
SUPV 012 †	Written Communication for Supervisors	3
WASTE 015	Wastewater Operations IV	4
WASTE 018	Water & Wastewater Mathematics	3

SUPPLY WATER TECHNOLOGY

Certificate of Achievement

Major Units: 22

A Certificate of Achievement in Supply Water Technology may be earned by completing 20 units of Required Courses and 2 units of Major Electives listed under for the Associates degree in Water System Technology with a "C" or better in each course.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

- List & discuss the sources of supply water and its treatment technology.
- Describe the supply water treatment processes and process control strategies.
- Correctly utilize basic mathematical operations as applied to entry level supply water calculations and measurements.

WELDING, GAS AND ELECTRIC

Department: **Construction, Design, and Manufacturing**
Department Chair: **Mr. William (Bill) Elarton, Room SQ-122**
(213) 763-3701, ElartoWD@lattc.edu

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Welding, Gas and Electric	A.S.	Plan B	48	-	48
Welding, Gas and Electric	C		48	-	48
At least 60 degree applicable units (48 total major units and Plan B units) are required to earn an Associate degree.					

PROGRAM OVERVIEW

The Associate in Science degree and Certificate of Achievement in Welding Gas and Electric is a full-time program designed for individuals seeking entry level positions in the field. Students enrolling in this program should be able to commit to full-time student status, which is approximately 21 hours per week.

This time commitment is necessary to allow for hands-on training with the lab applications used during the course of instruction.

LATTC's welding program is a Certified Welding Test Center. Individuals seeking certification as a welder can take the required certification exams on site.

By fulfilling the program requirements, students will have the necessary skills for all positions that are related to welding on plate. This program prepares the student for fabrication work, construction work, job shops and other entry-to-mid level related jobs.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Degree** program, students are able to:

- Use hand and power tools to perform welding construction and maintenance work.
- Demonstrate sustainable welding construction and maintenance practices.
- Perform trade calculations related to welding construction and maintenance work.
- Work independently and interdependently to safely accomplish shared professional outcomes.

WELDING, GAS AND ELECTRIC

Associate in Science Degree

Major Units: 48

Requirements for the Associate in Science degree in Welding, Gas and Electric may be met by completing 48 units of Required Courses with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

REQUIRED COURSES

SEMESTER I		UNITS
WELDG/E 112	Welding Related Technical Instruction I	3
WELDG/E 113	Applied Mathematics I	3
WELDG/E 121	Acetylene & Electric Welding I	6
SEMESTER II		**UNITS**
WELDG/E 124	Blueprint Reading I	3
WELDG/E 125	Applied Mathematics I	3
WELDG/E 131	Electric Welding II	6
SEMESTER III		**UNITS**
WELDG/E 101	Flux Core	6
WELDG/E 132	Blueprint Reading II	3
WELDG/E 133	Welding Related Technical Instruction III	3
SEMESTER IV		**UNITS**
WELDG/E 141	Electric Welding III	6
WELDG/E 142	Inert Gas Welding (TIG and MIG)	3
WELDG/E 143	Welding Related Technical Instruction IV	3

† Course currently unavailable

MAJOR ELECTIVES

		UNITS
WELDG/E 100	Metal Sculpture I	3
WELDG/E 112	Welding Related Technical Instruction I	3
WELDG/E 113	Applied Mathematics I	3
WELDG/E 124	Blueprint Reading I	3
WELDG/E 133	Welding Related Technical Instruction III	3
WELDG/E 200	Metal Sculpture II	3
WELDG/E 210	Metal Sculpting LAB	2

WELDING, GAS AND ELECTRIC

Certificate of Achievement

Major Units: 48

A Certificate of Achievement in Welding, Gas and Electric may be earned by completing 48 units of Required Courses listed under for the Associates degree in Welding, Gas and Electric with a "C" or better in each course.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

- Preform basic welds in all positions using the GMAW, FCAW, GTAW and SAW processes.
- Acquire local and national welding certifications or develop competencies in a specific welding skill.
- Exhibit continuous positive attitude toward safe work habits.
- Secure gainful employment.

WELDING, GAS AND ELECTRIC: ADVANCED MANUFACTURING

Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Welding, Gas and Electric: Advanced Manufacturing	C		24	4	28

PROGRAM OVERVIEW

The Welding in Advanced Manufacturing Certificate is design to provide students with general and qualifying knowledge of the welding skills needed for entry level employment in modern manufacturing and fabrication. The core of this program is based on the American Welding Society's Curriculum Guide for the Training of Welding Personnel: Level I- Entry Level.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

- Demonstrate welds in all positions using the GMAW, FCAW, GTAW and SAW processes that meet local and national welding certification standards.
- Apply safe work practices when welding that meet industry and employer standards for safety.

WELDING, GAS AND ELECTRIC: ADVANCED MANUFACTURING

Certificate of Achievement

Major Units: 28

A Certificate of Achievement in Welding, Gas and Electric: Advanced Manufacturing may be earned by completing 24 units of Required Courses and 4 units of Major Electives with a "C" or better in each course

REQUIRED COURSES

		UNITS
WELDG/E 003 †	BRAZING	1
WELDG/E 102	PIPE HORIZONTAL (2G) AND UPHILL (5G)	3
WELDG/E 103	OCCUPATIONAL ORIENTATION FOR WELDERS	1
WELDG/E 104	GAS TUNGSTEN ARC/SHIELDED METAL ARC WELDING	3
WELDG/E 115	STRUCTURAL STEEL AND BOLTING SPECIAL INSPECTION	3
WELDG/E 120	STRUCTURAL WELDING SPECIAL INSPECTION	3
WELDG/E 151	SHIELD METAL, FLUX CORE & GAS TUNGSTEN ARC WELDING LABORATORY	2
WELDG/E 201	WELDING-GAS AND ELECTRIC I	2
WELDG/E 202	WELDING-GAS AND ELECTRIC II	2
WELDG/E 251	TUNGSTEN INERT GAS WELDING	2
WELDG/E 285	DIRECTED STUDY - WELDING GAS AND ELECTRIC	2

MAJOR ELECTIVES

Select at least 4 units from the courses below		UNITS
WELDG/E 385	DIRECTED STUDY - WELDING GAS AND ELECTRIC	3
WELDG/E 185	DIRECTED STUDY - WELDING GAS AND ELECTRIC	1

† Course currently unavailable

Apprenticeship Education

APPRENTICESHIP EDUCATION

Department Chair: Mr. William (Bill) Elarton, Room SQ-122
(213) 763-3701, cdm@lattc.edu

NOTE: Open to Registered Apprentices ONLY

Prerequisites: Registered Apprenticeship Period Five Years.

EDUCATIONAL PROGRAMS AND COURSES

- Electrical Lineman
- Engineer: Operating/Maintenance

LATTC's Apprenticeship Education program offers classes to students who are registered to learn a trade under agreement with the State of California Division of Apprenticeship Standards, and are required to attend college classes during their registered apprenticeship program. The LATTC Apprenticeship Education program is part of a state approved industrial plan for training skilled workers. It is enabled nationally by the Federal Apprenticeship Law (known as the Fitzgerald Act of 1937) and on the state level by the Shelley-Maloney Labor Standards Act of 1939. The program is authorized and supported by the California Apprenticeship Council under the supervision of the joint Apprenticeship Committee (equal employer and employee representation) for each trade under standards approved by the State of California.

Apprentices training under the cooperative direction of the college and Apprenticeship committees for their trade may petition to receive credit toward the Associate in Arts degree or the Associate in Science degree for all courses successfully completed. A Certificate of Achievement will be awarded when the proper application is made and the student has successfully completed all the apprenticeship assigned in their discipline. Additional courses may be substituted with the approval of the apprenticeship coordinator. Substitutions will be limited to 50%.

There are two primary parts to the training of an apprentice: (1) on-the-job training and instruction in the manipulative processes, and (2) in-school training which involves instruction in technical subjects related to the on-the-job training. On-the-job training is comprised of 40 hours per week of supervised work experience and instruction wherein an apprentice rotates through a series of sequential work experiences which are designed to develop the all-around skills of the trade.

State apprenticeship law requires that state and local boards responsible for vocational education administer related and supplemental instruction for apprentices. College offerings provide the apprentice with a study of technical subjects, subject to regular class attendance for the duration of the apprenticeship training period. An example of topics studied, which are generally applicable to a majority of trades, includes applied math and science, blueprint reading and drawing, materials, equipment, processes, and health and safety.

Los Angeles Trade Technical College plays no part in the apprenticeship selection process. For further information about apprenticeship programs operating in California and the possibility of becoming an registered apprentice in any trade, contact the California State Division of Apprenticeship Standards at 8th floor, Room 8000,320 West Fourth Street, Los Angeles, California 90012. Their phone number is (213) 576-7750

For more information, contact the LATTC apprentice information center located in room SQ-122. Phone: (213) 763-7151.

ELECTRICAL LINEMAN APPRENTICESHIP

Certificate of Achievement

Prerequisites: Students enrolling in these classes must have been accepted into a California Registered Apprenticeship Program. Student apprentices will be monitored and evaluated during this program by the joint apprenticeship committee for their trade and will gain the skills necessary to perform as a journeyman in their trade. A Certificate of Achievement may be awarded when a student completes 18 units in this program.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

- Use hand and power tools to perform basic utility power-line work such as; hammers, saws, chain-saw, wrenches, and other related equipment.
- Perform calculations and measurements commiserate to entry level power-line work.
- Pole Climbing Competencies (Climbing with Confidence), demonstration of things such as; string and transfer overhead wire, set and remove utility poles, hang transformers, hang and remove cross-arms, install and remove cut-outs, etc.

See "Course Descriptions" Section for detail course information for the following -

701A	Electrical Lineman Apprenticeship I A	3
701B	Electrical Lineman Apprenticeship I B	3
702A	Electrical Lineman Apprenticeship II A	3
702B	Electrical Lineman Apprenticeship II B	3
703A	Electrical Lineman Apprenticeship IIIA	3
703B	Electrical Lineman Apprenticeship III B	3
702A	Cable Splicer Apprenticeship IA	3
702B	Cable Splicer Apprenticeship IIB	3
709	Electrical Craft Helper Apprenticeship	4

OPERATION MAINTENANCE ENGINEER APPRENTICES

Certificate of Achievement

Prerequisites: Students enrolling in these classes must have been accepted into a California Indentured Apprenticeship Program. A Certificate of Achievement may be awarded for completion of a combination of 36 units in this program and the A/C Refrigeration Mechanic program.

Student apprentices will be monitored and evaluated during this program by the joint apprenticeship committee for their trade and will gain the skills necessary to perform as a journeyman in their trade.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

- Use hand and power tools to perform stationary engineer operations.
- Perform calculations and measurements related to stationary engineer work.
- Work independently & interdependently to safely accomplish shared professional outcomes.

See "Course Descriptions" Section for detail course information for the following -

100	O.S.H.A. BASED SAFETY STANDARDS: CONSTRUCTION & INDUSTRY	2
703	ENERGY MANAGEMENT	4
704	Motor Control I	2
720	HVACR - i	2
724	Fundamentals of Electricity	2
727	Industrial mechanics	2
739	Locksmithing and Security Systems for Apprentices	4
740	Tenant Relations and Reports for Apprentices	4
744	HVACR - Conditioning Controls	2
745	Plumbing code i	4
746	Plumbing Code Principles and Practices	2
747	Electrical Trouble Shooting	2
748	Electrical Codes & Ordinances (NEC)	
749	HVACR ii	2
750	Indoor Air qualitiyquality	4
751	Print Reading	3
753	Boilers for Apprentices	4



Pre-professional educational pathways

COOPERATIVE WORK EXPERIENCE EDUCATION

Contact: **Christie Dam**
213.763.7075, DamMC@lattc.edu

PROGRAM OVERVIEW

Cooperative Work Experience Education (CWEE) combines on-the-job experience with regular classroom instruction. It is designed to expand students' skills and knowledge, and to improve self-understanding by integrating classroom study with supervised work experience.

CWEE is based on the principle that well educated individuals develop most effectively through the incorporation of related education and work experience. By monitoring structured work experiences in business, industry, government and human services settings, LATTC provides enrichment to college studies which enhance the student's total development.

In the Cooperative Work Experience Education program, an individual student's educational objectives are carefully planned and coordinated between the College, the student, and the employer to ensure a positive and realistic employment experience.

Cooperative Work Experience Education has the following objectives:

- To provide opportunity for the student to secure employment on a part-time or full-time basis.
- To gain realistic work experience that is meaningfully related to the student's college study program.
- To provide the student the opportunity to acquire knowledge, skills, and attitudes essential for successful employment.

A student enrolled in Cooperative Work Experience Education:

- Has the opportunity to learn or improve employment skills under actual working conditions.
- Gains perspective on career goals through application of classroom theory to "real life experience."
- Builds self-identity and confidence as a worker through individual attention given by instructor/coordinators and employers.
- Has opportunities to test personal abilities in work environments.
- Has a more realistic approach to the Job market.
- May refer to work experience education in future job applications.
- Benefits financially while learning, and can begin a career earlier.

Students employed in a job not related to their major should enroll in:
COOP ED General Course: 395
Section: 9001
Units: 1-3
Room: CY-236

Students employed in a job related to their major should enroll in:
COOP ED MAJOR Course: 941
Section: See schedule
Units: 1-4
Room: CY-236

STUDENT QUALIFICATIONS

GENERAL WORK EXPERIENCE

Hours by arrangement: 1-3 units

Prerequisite: Approval of Work Experience Coordinator

This is a program where supervised employment is intended to assist students in acquiring desirable work habits, attitudes, and career awareness. The work experience need not be related to the students' educational goals. The course may be repeated for a maximum of 16 total units, subject to a maximum of 3 units per one enrollment period in general work experience education.

OCCUPATIONAL WORK EXPERIENCE

Hours by arrangement: 1-4 units

Prerequisite: Employment in a field related to the students' program of study as verified and approved by the Cooperative Work Experience Coordinator.

This is a program of supervised training conducted in the form of on-the-job training in an employment area related to students' occupationally oriented program of study that will enhance the students' educational goals on campus. The course may be repeated for a maximum of 16 total units, subject to a maximum of 4 units during one enrollment period in occupational work experience education.

CALIFORNIA STATE UNIVERSITY: APPROVED COOPERATIVE EDUCATION SUBJECT AREAS

Los Angeles Community College District policy provides that a maximum of eight (8) semester units in cooperative education courses completed in the subject areas listed below may be applied toward the California State University 56 unit admission requirement.

Cooperative Education COURSE DESCRIPTIONS

The following courses provide Cooperative Work Experience Education credit:

195	Work Experience General I	(1) RPT3 (CSU)
295	Work Experience General I	(2) RPT2 (CSU)
395	Work Experience General I	(3) RPT1 (CSU)
911	Work Experience in Major I	(1) RPT3 (CSU)
921	Work Experience in Major I	(2) RPT3 (CSU)
931	Work Experience in Major I	(3) RPT3 (CSU)
941	Work Experience in Major I	(4) RPT3 (CSU)

Prerequisite: Employment in a field related to the students' program of study as verified by the signature of the cooperative education advisor. Supervised training is conducted in the form of on-the-line job training in an employment area that will enhance the students' educational goals on campus.

Additional courses within the disciplines listed below provide Cooperative Work Experience Education credit:

- Automotive Collision Repair
- Automotive and Related Technology
- Business
- Building Construction Techniques
- Carpentry
- Child Development
- Culinary Arts
- Diesel and Related Technology
- Electrical Construction and Maintenance
- Electronics Technology
- Fashion Design
- Fashion Merchandising
- Management
- Plumbing
- Professional Baking
- Refrigeration and Air Conditioning Mechanics
- Solid Waste Management Technology
- Supervision
- Supply Water Technology
- Welding/Gas and Electric



Noncredit Continuing Education

NONCREDIT - CONTINUING EDUCATION

Department: Academic Connections
Department Chair: Christina Anketell, Room MA-109e
213-763-3738, AnketeCP@lattc.edu

PROGRAM OVERVIEW

Los Angeles Trade Technical College offers a variety of tuition-free noncredit courses on campus and at community-based organizations throughout Los Angeles. As a key aspect of lifelong learning, noncredit instruction at LATTC serves as a gateway to college and career preparation; provides programs for immigrants to actively engage in the economy and civic life; and provides access to basic skills and English as a Second Language. Students can register for classes through the Bridges to Success Center located in Mariposa Hall, MA-105, online, or off-site at the first class meeting. For additional information and registration assistance, contact the Bridges to Success Center at (213) 763-5560 or via email at bridge@lattc.edu.

COLLEGE READINESS
Certificate

This certificate prepares students for success in college. Students will obtain the basic skills needed to successfully transition to college classes and start working towards their certificate, degree, or transfer goals.

PROGRAM LEARNING OUTCOMES (PLOs)

- Use basic English and critical thinking skills to successfully transition to college classes and start working towards their certificate, degree, or transfer goals.
- Demonstrate basic math skills to successfully transition to college classes and start working towards their certificate, degree, or transfer goals.
- Utilize basic computer literacy skills to successfully transition to college classes and start working towards their certificate, degree, or transfer goals.
- Employ basic study skills to successfully transition to college classes and begin working towards their certificate, degree, or transfer goals.

REQUIRED COURSES

		UNITS
BSICSKL 002 CE	Basic English Skills	0
BSICSKL 023 CE	College and Scholastic Assessment Prep	0
BSICSKL 035 CE	Basic Math Skills	0
BSICSKL 060 CE	Basic Computer Literacy	0

PROGRAM LEARNING OUTCOMES (PLOs)

- Utilize the basic speaking and listening skills necessary for success in obtaining employment and/or advancement in the workplace.
- Demonstrate the basic reading and writing skills necessary for success in obtaining employment and/or advancement in the workplace.

ENGLISH AS A SECOND LANGUAGE: BEGINNING
Certificate

Students who earn this certificate will receive instruction in speaking, listening, reading and writing and the basic skills necessary for success in obtaining employment and/or advancement in the workforce.

REQUIRED COURSES

		UNITS
E S L 006 CE	English as a Second Language-0	0
E S L 007 CE	English as a Second Language-1	0
E S L 008 CE	English as a Second Language-2	0

PROGRAM LEARNING OUTCOMES (PLOs)

- Apply listening, speaking, reading and writing skills to successfully attain their academic goals.
- Apply listening, speaking, reading and writing skills to successfully attain their vocational goals.

WORKPLACE READINESS
Certificate

This program will provide students with the skills to successfully search for, obtain and maintain employment.

PROGRAM LEARNING OUTCOMES (PLOs)

- Demonstrate the necessary computer literacy skills to successfully search for, obtain, and maintain employment.
- Utilize pre‐employment / consumer training skills to successfully search for, obtain, and maintain employment.
- Demonstrate job search skills to successfully search for, obtain, and maintain employment.
- Employ effective image, etiquette, and interpersonal communication skills to successfully obtain and maintain employment.

REQUIRED COURSES

		UNITS
BSICSKL 045 CE	Microsoft Office Application Basics	0
BSICSKL 041 CE	Softskills Basic 1A - Job Search Planning	0
BSICSKL 042 CE	Softskills Basic 1B - The Successful Job Search	0
BSICSKL 055 CE	Softskills Basic 3B - Image, Etiquette and Interpersonal Communication	0

Course Descriptions

ACCOUNTING

ACCTG 001 INTRODUCTORY ACCOUNTING I (5) UC:CSU

Lecture: 5 hour(s)
Advisory: Business 38 and English 21

Introduces the fundamental principles and concepts of accounting as a basis for financial communication in business. This includes the procedures for maintaining records in business transactions and the preparation of financial statements for the sole proprietorship in a service and merchandising firm. Procedures and techniques for internal control, deferrals and accruals, inventory, plant assets, accounts receivable, accounts payable, and payroll are included.

Student Learning Outcome:

Analyze and record financial transactions and post to ledgers. Analyze and prepare year-end adjustments using worksheets and completing the accountable cycle. Analyze and prepare basic financial statements. Evaluate economic situations of the business by using simple financial ratios.

ACCTG 002 INTRODUCTORY ACCOUNTING II (5) UC:CSU

Lecture: 5 hour(s)
Prerequisite: Accounting 1

Continues the introductory phase of accounting. Topics covered include: Partnerships, Corporations, Income Tax, Bonds, Cash Flow, Financial Statement Analysis, Managerial Accounting, Job Order and Process Cost Systems, Cost Behavior and Analysis, Budgeting, Performance Evaluation, Product Pricing, Capital Investment Analysis.

Student Learning Outcome:

Students will Journalize and post transactions involving sale of stock, changes in retained earnings, declaration of cash and stock dividends, sales and early redemption of bonds. Students will prepare statements of cash flows using the indirect method.

ACCTG 003 INTERMEDIATE ACCOUNTING I (3) CSU

Lecture: 3 hour(s)
Advisory: Accounting 2 and Business 38

This course provides complete analytical application and an advanced review of topics discussed in Accounting I and II. Topics include assets (current, fixed, and intangible), investments, financial statements, income taxes, liabilities, stockholders equity, revenue recognition, asset acquisition and leases. This course places a high emphasis on financial reporting standards.

Student Learning Outcome:

Students will demonstrate skills and knowledge of income statement preparation and presentation.

ACCTG 011 COST ACCOUNTING (3) CSU

Lecture: 3 hour(s)
Advisory: Accounting 1; Accounting 2; Business 38

This course covers both managerial and cost accounting, with emphasis on cost and non-systems; types of cost; elements of cost; cost behavior; variances for labor, materials and overhead; indirect expenses; allocation of cost to by-products; standard cost and budgets.

Student Learning Outcome:

Student will be able to use cost-volume-profit (CVP) analysis to analyze decisions.

ACCTG 015 TAX ACCOUNTING I (3) CSU

Lecture: 3 hour(s)

This course is a study of Federal Income Taxes as they apply to individuals and sole proprietorships and an analysis of appropriated tax laws. Consideration of applicable accounting procedures and preparation of reports and returns are emphasized.

Student Learning Outcome:

Students will learn how to complete an individual income tax return. Students will learn how to calculate gross income with exclusions.

ACCTG 018 COMPUTERIZED PAYROLL ACCOUNTING (3)

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisory: Accounting 1

This course will cover procedures and practices involved in a manual or automated payroll system. Students will become familiar with current Federal and California laws affecting payroll, computation of payroll taxes and preparation of required payroll tax returns/forms.

Student Learning Outcome:

Students will demonstrate competency in computing federal and state liabilities for employer's payroll taxes.

ACCTG 021 BOOKKEEPING AND ACCOUNTING I (3) UC:CSU

Lecture: 3 hour(s)
Advisory: Business 38

This course includes fundamentals of double entry bookkeeping; preparation of the trial balance; worksheets and financial statement; use of controlling accounts; the control of cash and bank reconciliation statements.

Student Learning Outcome:

Analyze financial transactions and prepare the appropriate journal entries to document the transaction in the accounting records. Analyze and prepare basic financial statements such as trial balances, journal entries income statements. Evaluate the post-closing trial balance and prepare the necessary post-closing entries for the opening trial balance for subsequent periods.

ACCTG 025 AUTOMATED ACCOUNTING METHODS AND PROCEDURES (3) CSU

Lecture: 3 hour(s)

This course emphasizes the hands-on use of popular computer software applications to accounting and business, with special reference to the general ledger, billing, accounts receivable, accounts payable, payroll, and inventory control.

Student Learning Outcome:

Students will demonstrate the application of the accounting software to record various types' business transactions and prepare standard financial reports for a service business.

ADMINISTRATION OF JUSTICE

ADM JUS 001 INTRODUCTION TO ADMINISTRATION OF JUSTICE (3) UC:CSU

Lecture: 3 hour(s)

Philosophy, history, and theories of the criminal justice system, including the origins and evolution of criminal law and due process, the roles and functions of the local, state, and federal jurisdictions, and the interrelationships among criminal justice agencies: law enforcement, courts, and corrections; crime causation, analysis and the social impact of crime. The conceptual approach utilized in this course recognizes that criminal justice is itself a distinct academic discipline rather than an interdisciplinary course of study. Three hours lecture per week.

Student Learning Outcome:

SLO #1 Gather information on the various components of the criminal justice system. SLO #2 Critically analyze and then organize information on the criminal justice system. SLO #3 Properly apply the English language to write an explanatory paper about the criminal justice system.

ADM JUS 002 CONCEPTS OF CRIMINAL LAW (3) UC:CSU

Lecture: 3 hour(s)

This course deals with the structure of law, definitions, and the most frequently used sections of the California Penal Code. Topics include origins of federal and state laws, interpretation and application of laws, identifying elements of property crimes and criminal liability.

Student Learning Outcome:

1. Explain the major historical steps leading to the development of U.S. criminal law patterns 2. Explain the elements, conduct, results of conduct, and attendant circumstances of certain crimes. 3. Explain the sources of development in the case law of significant criminal law matters.

ADM JUS 003 LEGAL ASPECTS OF EVIDENCE (3) CSU

Lecture: 3 hour(s)

Students will be able to locate, develop and lift fingerprints from crime scenes; a must for those students interested in law enforcement as a police officer or evidence specialist or private investigations

This course provides instruction in the origins, development and philosophy of criminal evidence. This course looks at the many different types of evidence brought into the justice system. Also covered are the rules governing the admissibility of evidence in court.

Student Learning Outcome:

1. Explain the origins, development and philosophy of criminal evidence. 2. Explain the types of criminal evidence utilized by our courts. 3. Explain rules regarding the use of evidence in our court system.

ADM JUS 004 PRINCIPLES AND PROCEDURES OF THE JUSTICE SYSTEM (3) UC:CSU

Lecture: 3 hour(s)

A detailed study of the role and responsibilities of the American court system and its purpose; an examination of the philosophy, history, structure, operation, concepts and services related to the judiciary; a study of case law methodology and case research and their impact on society; an examination of the legal process from pre-arrest through trial, sentencing options and correctional procedures.

Student Learning Outcome:

SLO 1: List historical and conceptual significance of the court system, administration and management. SLO 2: Discuss the criminal trial process and the specific roles and responsibility of each member. SLO 3: Evaluate the judicial process and its effect on society.

ADM JUS 005 CRIMINAL INVESTIGATION (3) CSU

Lecture: 3 hour(s)

Fundamentals of the theories, concepts, and methodology of criminal investigation. This course will look at the investigative procedures from the crime scene to the courtroom, inclusive of legal constraints, ethics, and types of evidence; techniques and procedures for basic interview and interrogation procedures; identification of proper crime scene management, follow-up, case preparation and organization.

Student Learning Outcome:

1. Describe all the steps involved in a criminal investigation. 2. Identify, classify, collect and preserve physical evidence.

ADM JUS 008 JUVENILE PROCEDURES (3) CSU

Lecture: 3 hour(s)

This course covers the juvenile justice system and related juvenile justice issues. Topics include an overview of the juvenile justice system, treatment and prevention programs, history, theories, methodology, and special areas and laws unique to juveniles.

Student Learning Outcome:

SLO 1: Discuss the histories and philosophies of the juvenile justice system. SLO 2: Identify and compare the legislative policies related to juvenile offenders and the procedures for implementation. SLO 3: Describe the impact of legislative change on the development of national standards for juvenile justice.

ADM JUS 014 REPORT WRITING FOR PEACE OFFICERS (3) CSU

Lecture: 3 hour(s)

This course provides instruction in the practice of various types of technical writing commonly used in police agencies, the appropriateness of different styles in different contexts and the conceptualization of the material, and the utilization of machine tabulation in reports and methods of reporting criminal statistics.

Student Learning Outcome:

1. Write clear and concise law enforcement reports. 2. Improve basic grammar and apply the grammar rules to writing police reports.

ADM JUS 041 OFFICER SAFETY (3) CSU

Lecture: 3 hour(s)

The study of techniques of protection against persons armed with dangerous and deadly weapons. Students examine the moral aspects, legal provisions, safety precautions and restrictions covering the use of firearms and other weapons.

Student Learning Outcome:

1. List safety hazards that pose threats to officers. 2. Describe the operation and application of safety equipment used to protect officers. 3. List the many factors that should be considered when approaching a dangerous situation.

ADM JUS 053 FORENSIC FINGERPRINT EVIDENCE (3)

Lecture: 3 hour(s)

Students will be able to locate, develop and lift fingerprints from crime scenes; a must for those students interested in law enforcement as a police officer or evidence specialist or private investigations.

Student Learning Outcome:

1. Define technical terminology used in fingerprint processing work. 2. Explain and interpret fingerprint patterns and classifications. 3. Explain fingerprint searching & filing procedures. 4. Classify finger print cards.

ADM JUS 062 FINGERPRINT CLASSIFICATION (3) CSU

Lecture: 3 hour(s)

This is a practical course which covers the technical terminology of fingerprinting, pattern interpretation, and classification of fingerprints, the taking of fingerprints, searching and filing procedures and laboratory work in the classroom.

Student Learning Outcome:

1. Define technical terminology used in fingerprint processing work. 2. Explain and interpret fingerprint patterns and classifications. 3. Explain fingerprint searching & filing procedures. 4. Classify finger print cards.

ADM JUS 067 COMMUNITY RELATIONS I (3) UC:CSU

Lecture: 3 hour(s)

Examination of the complex relationship between the community and the justice system with emphasis on the challenges of dealing with the role of race, ethnicity, gender relations, sexual orientation, social class, language, and culture in shaping these relations.

Student Learning Outcome:

SLO 1: Analysis of assigned textual readings; in-class debate on the increasing social and economic bifurcation of society SLO 2: Differentiate value systems and ideologies as they apply to community relations and diversity SLO 2: Evaluate immigration and its effect on society; examining in-class videos on race relations for content synthesis.

ADM JUS 073 LAW AND MINORITY GROUPS (3) CSU

Lecture: 3 hour(s)

This course examines the growing crises of race, ethnicity, gender and discrimination within the American Justice System. Myths and realities about crime and minorities are analyzed. Racism, and inequities within the legal structures including court trials, corrections and the death penalty are discussed. Changes in criminal justice administration advocated by minority groups are reviewed.

Student Learning Outcome:

Student Learning Outcomes: As a result of this learning experience, a student can: 1. Analyze and evaluate how myths about race, ethnicity and crime have influenced our Criminal Justice System. 2. Compare and contrast the crime rates within and without minority communities. 3. Analyze, evaluate and describe the factors that have influenced race-based differences in the crime rate. Propose steps to be implemented for the reduction or eradication of race based criminal justice disparities.

ADM JUS 075 INTRODUCTION TO CORRECTIONS (3) CSU

Lecture: 3 hour(s)

This course surveys the total correctional cycle and the relationships of its components, including historical, theoretical and philosophical explanations of criminal behavior; statistics and research findings; employment opportunities; and employment requirements. This course will also examine the basic nature of correctional work; aims and objectives of correctional administration; probation and parole; skills; knowledge and attitudes required for employment in this field.

Student Learning Outcome:

1. Identify the components of the U.S. Corrections system and its history of development. 2. Understand the procedures used in jails and prisons and their effect on inmates. 3. Compare and contrast the various alternatives to incarceration and for which populations each are best suited.

ADM JUS 501 AN A TO Z GUIDE TO CRIMINAL JUSTICE CAREERS (3) CSU

Lecture: 3 hour(s)

This course reviews the hot jobs in the criminal justice arena and outlines a method for the student to decide on their career path. Hiring process and interview skills will be explored. Fitness for duty and other physical and physiological characteristics will be discussed. An A to Z guide to Local, State, and Federal Criminal Justice Careers will be presented.

Student Learning Outcome:

1. List career opportunities. 2. Develop a self-career map/plan.

ADM JUS 502 INTRODUCTION TO FORENSIC PSYCHOLOGY (3) CSU

Lecture: 3 hour(s)

This is a basic course dealing with the nature of Psychology within the criminal justice system. The aims and objectives of Forensic Psychology as applied to corrections, probation practices, institutions, services, and inmate supervision will be discussed.

Student Learning Outcome:

1. Define various psychological traits and conditions and discuss the impact they have on corrections and probations institution services.

ADM JUS 750 ETHICS AND THE CRIMINAL JUSTICE SYSTEM (3) CSU

Lecture: 3 hour(s)

This course identifies and explores ethics, values definitions and applications in the criminal justice system: police, courts, probation, parole, corrections and private security organizations. Remedial strategies relating to unethical behavior by individuals and groups will also be addressed.

Student Learning Outcome:

1. Discuss strategies addressing unethical behavior by staff. 2. Explain the ethical right and wrong when applied to various aspects of the criminal justice system.

AMERICAN SIGN LANGUAGE

A S L 001 AMERICAN SIGN LANGUAGE I (4) UC:CSU

Lecture: 4 hour(s)

This is an introductory course designed to develop basic conversational skills using the manual alphabet and American Sign Language. It is planned to assist in communicating with deaf individuals and have a better understanding of deaf culture. This course develops basic vocabulary and grammar of American Sign Language. Its emphasis is placed on comprehension skills and vital aspects of the Deaf culture and community.

Student Learning Outcome:

1) Distinguish between Deaf and Hearing Culture. 2) Student will prepare and present a Formal ASL Presentation incorporating expressive and receptive ASL language skills.

A S L 002 AMERICAN SIGN LANGUAGE II (4) UC:CSU

Lecture: 4 hour(s)
Prerequisite: American Sign Language I

This is an intermediate course in American Sign Language with special emphasis on vocabulary, grammar dialog, and on the improvement of expressive and receptive skills. This course includes exposure to deaf culture and the history of sign languages.

Student Learning Outcome:

1. The student will demonstrate comprehension of ASL vocabulary and grammar 2. The student will demonstrate ASL conversational fluency on an intermediate level 3. The student will demonstrate use of descriptive classifiers, personal and possessive pronouns

A S L 003 AMERICAN SIGN LANGUAGE III (4) UC:CSU

Lecture: 4 hour(s)

Intermediate course with continued development of American Sign Language vocabulary, grammar, and beginning conversational; fluency with special emphasis on idiomatic constructions. Further development of conversational techniques focusing on receptive and expressive skills. Expanded study of Deaf cultural issues. (Overview of topics include: language functions, such as, giving reasons, making requests, asking where, giving specific directions, correcting and confirming information, complaining, making suggestions, asking for permission, expressing concern, declining/explaining, asking for/giving definitions, describing objects, describing weekend activities, telling about disrupted plans; grammatical structures, such as, topic-comment, weak hand referencing, locatives, temporal aspect modulations, verb inflections, role shifting, conditional sentences, contrastive structure, classifier types, non-manual markers, number functions; and discourse structures, such as, presenting informative speeches using ASL).

Student Learning Outcome:

1 Receptive skills: Able to understand the meaning of a signed message produced at a normal rate of speed. 2. Expressive skills: Able to express particular interests and varied experiences with reasonable ease. 3. Grammar/Culture: Able to show a satisfactory knowledge of proper grammar/culture rules.

A S L 004 AMERICAN SIGN LANGUAGE IV (4) UC:CSU

Lecture: 4 hour(s)
Prerequisite: ASL 003; Advisory: ASL 031

In this course students focus on advanced vocabulary and grammar and further develop and refine communicative skills and fluency through spontaneously generated conversations that accentuate various aspects of Deaf culture and community.

Student Learning Outcome:

1. Receptive skills: can understand most conversations within the range of his/her experience with a high degree of fluency. 2. Expressive skills: Able to use ASL with a high degree of fluency and accuracy for most topics and levels of communication. 3. Grammar/Culture: Able to show a satisfactory knowledge of proper grammar/culture rules.

A S L 030 FINGER SPELLING I (1) CSU

Lab: 2 hour(s)

Develops skills in expressive and receptive use of the Manual Alphabet. Deals with specific individual problems and techniques for corrections. [Overview of topics include: hand positioning (location and angle), handshapes, rhythm, fluency, spelling, and numbers; reception of finger spelled handshapes, patterns and pauses/transitions. O/P MEDI-CAL B

Student Learning Outcome:

1. Student demonstrates beginning level comprehension of fingerspelling (receptive skills). 2. Student demonstrates beginning level ability in fingerspelling (expressive skills). 3. Demonstrates knowledge related to fingerspelling processes and practices.

ANATOMY

ANATOMY 001 INTRODUCTION TO HUMAN ANATOMY (4) UC:CSU

Lecture: 3 hour(s); Lab: 3 hour(s)
Prerequisite: BIO 3 or 5

A detailed study of structures and systems of the human body. Laboratory work includes microscopy, mammalian dissections, and use of anatomical models.

Student Learning Outcome:

Students will demonstrate technical skills to study anatomy including use of the microscope and dissection tools. Students will identify human body structures and pathways using models and dissections. Students will understand health applications and pathology for each body system.

ANTHROPOLOGY

ANTHRO 101 HUMAN BIOLOGICAL EVOLUTION (3) UC:CSU

Lecture: 3 hour(s)
Advisory: English 28

This course is an introduction to the field of biological anthropology. Topics covered include genetic inheritance, the mechanisms of evolution, the biology and behavior of living primates, the history of human evolution as seen in the fossil record, and modern human biological variation.

Student Learning Outcome:

Students will understand human beings as the result of a natural evolutionary process.

ANTHRO 102 HUMAN WAYS OF LIFE: CULTURAL ANTHROPOLOGY (3) UC:CSU

Lecture: 3 hour(s)
Advisory: English 28

This course provides a comparative survey of human culture, including the study of human society, language, religion, political and economic organization, with examples drawn from contemporary preliterate, peasant, and urban societies.

Student Learning Outcome:

Students will develop comprehension and appreciation of human cultural variation and diversity.

ARCHITECTURAL INTERIORS

INT 200 RESIDENTIAL PLANNING (3) CSU

Lecture: 1 hour; Lab: 4 hour(s)

Using sustainable Design strategies, standards and geospatial tools (CAD/BIM/GIS), the student will learn how to participate in the interior design profession as a viewer and a do for the entire life cycle of a building and focusing on interior residential planning. Basic concepts will be covered in class to understand the fundamentals variables that determine interior spaces: lights, air, circulation, texture, pattern, geometry, experience, styles, natural resources, energy efficiency, form, materials, thermal/moisture protection and others. A study is made using a small house project layout, livability, functionality, size, orientation, cost, furnishing, equipment, and ornamentation and future inhabitants. The small house project is put in context through a brief history of American shelters "their construction types and styles. At this point the student is ready for developing, retrofitting, adding and remodeling the small house project including basic interior construction details and finishes. Residential construction problems are explored with an emphasis placed in functional design.

Student Learning Outcome:

Create an e-Portfolio Research and order appropriate sustainable materials Address organizational sustainability issues, such as waste stream management, green building practices, and green procurement plans. Analyze air quality, ventilation, and indoor air circulation Analyze solar path, views, orientation Utilize a variety of texture of materials, styles and other consideration of interior design Address appropriate lighting quality and energy management lighting and solar passive/active response Use appropriate Space Planning solutions and furniture arrangement Use LEED standards Address code, site and environmental requirements

ARCHITECTURE

ARC 130 HISTORY OF ARCHITECTURE I (2) UC:CSU

Lecture: 2 hour(s)

This course covers the study of architecture history from the prehistoric times to the Renaissance, the development of place and function as it is influenced by the geographical, climatic, religious, social, economic and historical forces. This course analyzes the difference between world architecture history and western architecture history, including the characteristics of Latin America, Islamic and Asia. The history of architecture is seeing through a perspective of how the built environment has responded to nature forces and resources; air, water, air and land. In addition each period identities technological innovation that characterized the historical roots in numerous civilizations.

Student Learning Outcome:

Sketch a building example, describe typology, style and life cycle characteristics Describe the form, shape geometry and design principles used Identify the social, technological, environmental and economic forces that shaped the building form Do an e Portfolio Discuss with class their research and findings Describe to the class findings and discoveries for each period

ARC 131 HISTORY OF ARCHITECTURE II (2) UC:CSU

Lecture: 2 hour(s)

This course covers the study of architecture history from the Renaissance to our current times, the development of place and function as it is influenced by the geographical, climatic, religious, social, economic and historical forces. This course analyzes the difference between world architecture history and western architecture history, including the characteristics of Latin America, Islamic and Asia. The history of architecture is seeing through a perspective of how the built environment has responded to nature forces and resources; air, water, air and land. In addition each period identities technological innovation that characterized the historical roots in numerous civilizations.

Student Learning Outcome:

For each period, students will: Sketch a building example, describe typology, style and life cycle characteristics Describe the form, shape geometry and design principles used Identify the social, technological, environmental and economic forces that shaped the building form Do an e Portfolio Discuss with class their research and findings Describe to the class findings and discoveries for each period

ARC 151 MATERIALS OF CONSTRUCTION (3) CSU

Lecture: 1 hour; Lab: 4 hour(s)

This course covers materials and methods of construction in the field of architecture, engineering and construction; wood, concrete, steel and masonry. This course analyzes each material characteristics, methods of construction, testing requirements, allowable uses, energy transfer capacity, structural behavior and their use in multiple construction assemblies. Materials and methods of constructions are covered in this class in alignment with sustainable standards, government agencies regulations, local incentives, and carbon footprint and geospatial simulations.

Student Learning Outcome:

The student will create an e-portfolio for each sustainable material and method of construction covering the entire life cycle, application, industry standards, new tools and methodologies.

ARC 152 EQUIPMENT OF BUILDINGS (3) CSU

Lecture: 1 hour; Lab: 4 hour(s)

Using geospatial tools and sustainable strategies this course applies the basic principles of design, selection and operation of equipment in buildings. Building equipment are systems that integrate architectural design with water distribution, water recycling and harnessing, air circulation, natural air flow, air heating and cooling, natural light, and acoustics. Passive and solar strategies are integrated into equipment as well as new technologies.

Student Learning Outcome:

Design an Energy Saving Plan for a Building System for Water, Electricity, Air Circulation, Sound, and Vertical Transportation. Design electrical generators using rule of thumbs and existing tables; wind turbine, photovoltaic, biomass, etc. Draw a Mechanical & Electrical Plan using standard templates and symbols. Develop a reflected ceiling plan that integrates ceiling, lighting, mechanical, and structural systems and incorporates life safety considerations. Sketch and delineate all variables for a building section that integrates structural, mechanical, and lighting systems and incorporates life safety considerations.

ARC 160 COMPUTERS FOR DESIGNERS (3) CSU

Lecture: 1 hour; Lab: 4 hour(s)

The student will learn how to become a designer and a technologist in three dimensional digital environments for architecture, urban and environmental design. The student will use the power of the tools to be inspired and to collaborate. This course is geared towards the built environment, ecological, entertainment and industrial designers. Students will learn how the space of a place affects the way we think, act and create. Emphasis is placed on how designers can optimize and understand the role of digital mediums in today's competitive edge and sustainable demands. Basic computer operations like operating systems, interfaces, print, view, export, file management, image manipulation are covered within the design exercises.

Student Learning Outcome:

The student will design Architecture and Urban projects and buildings (i.e. pocket park, urban farming), that improve the living conditions in the community using 3-d modeling, smart mapping, and CADD, as well as traditional drawing methods.

ARC 172 ARCHITECTURAL DRAWING I (3) CSU

Lecture: 1 hour; Lab: 4 hour(s)

This is an architecture drawing class that will focus on construction documents for wood construction. The course will cover how these architectural drawings are documents that instruct all the stake holders how to use, build and maintain a high performance building. The course will explain how construction documents made out of wood are connected to the life cycle of a building. It covers an integrated building approach, as it identifies the deliverables for: programing (identify the need), design drawings (identify the solutions), construction documents (drawings used to build the building), operation/maintain (as built drawings) and assessment (analysis for upgrade and improvement). This course will also cover CAD, BIM, GIS tools, LEED Credits, Sustainable Standards and their relationship to a set of construction documents for wood construction. Fundamentals of architectural drafting, symbols, dimensioning, and methods of representation are also mastered during this course. The student will prepare a set of construction documents for a simple wood building structure.

Student Learning Outcome:

Students complete: A set of construction drawings with accurate implementation of green building codes and space requirements Use BIM Building Information Model to analyze a case study and life cycle of a building Document smart manufacture techniques for buildings for a green environment Develop Submit an e Portfolio Integrate LEED Standards Integrate AIA Standards

ARC 173 ARCHITECTURAL DRAWING II (3) CSU

Lecture: 1 hour; Lab: 4 hour(s)

This is an architecture drawing class that will focus on construction documents for concrete and masonry construction. The course will cover how these architectural drawings are documents that instruct all the stake holders how to use, build and maintain a high performance building. The course will explain how construction documents made out of concrete and masonry are connected to the life cycle of a building. It covers an integrated building approach as it identifies the deliverables for: programing (identify the need), design drawings (identify the solutions), construction documents (drawings used to build the building), operation/maintain (as built drawings) and assessment (analysis for upgrade and improvement). In addition this course will cover CAD, BIM, and GIS tools, LEED Credits, Sustainable Standards and their relationship to a set of construction documents for concrete and masonry construction. The student will develop a simple set of construction documents for concrete and masonry.

Student Learning Outcome:

Students complete a set of construction documents for masonry and a set of construction drawings with accurate implementation of building codes and space requirements. Use BIM Building Information Model to analyze a case study. Document smart manufacture techniques for buildings for a green environment. Develop and submit an e Portfolio. Integrate LEED Standards Integrate AIA Standards

ARC 185 DIRECTED STUDY - ARCHITECTURE (1) CSU

Lecture: 1 hour

This course allows students to pursue a directed study in the Architecture Technology field on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in Architecture Technology.

ARC 201 ARCHITECTURAL DESIGN I (3) UC:CSU

Lecture: 1 hour; Lab: 4 hour(s)

This course will use sustainable strategies and geospatial tools to explore architecture design solutions. In this course students will work in a design laboratory studio exploring space and form. The solutions focus on analysis, proportion, solar passive, water conservation, biomimicry, planning layout, aesthetic, interpretation, and the nature of materials. Methods of presentations are studied, as well as design methodologies.

Student Learning Outcome:

Document design objectives including site characteristics, spatial and functional relationships, and building systems considerations * Implement Digital Solar and Energy Studies Establish preliminary project scope, phasing, budget, and schedule Partner with a University like USC School of Cinematography Arts/Multimedia Learning to explore one of the geometries to be used by a given concept. Develop an e portfolio Implement Design Innovation LEED Standards Implement Sustainable Design Strategies Partner with LATTC Carpentry for the Green Sandbox Construction Yard Incorporate a case study and existing road maps that best match their design proposal Describe in words their project what it is, why it is important and how it will be build Display a Space and Form design based on nature patterns

ARC 202 ARCHITECTURAL DESIGN II (3) UC:CSU

Lecture: 1 hour; Lab: 4 hour(s)

This course looks at space and form as a canvas for an architect, moving beyond abstraction language paradoxes, and formal gymnastics. Design and form integrates embodied energy of all resources, cognitive experiences, new materials, stronger social concerns and the need to react to location and space. It will see the creation of place and space, as a first act of human intention and use nature templates to solve holistic solutions. This course analyzes how the geometry of space influences how we communicate, behave, think, create, and produce; as well as its influences in cognition and mental model. This course will focus on building a better future through participatory design and the use of digital age tools including fabrication and geospatial

Student Learning Outcome:

Design a project that has the following characteristics: -communicates with new media -navigates and work in information environments -use 3d modeling -involves community participation -adapts, transforms and beautifies living standards

ARC 261 COMPUTER-AIDED DESIGN FOR ARCHITECTURE I (3) CSU

Lecture: 1 hour; Lab: 4 hour(s)

This is a digital modeling course for space and form design. This course covers space modeling, energy simulation, solar paths, light analysis, texture, rendering and materials, as well as its relationship to BIM, CAD and geospatial tools

Student Learning Outcome:

1. Students will submit the following according to standards: a) Renderings b) Lighting Studies c) Solar simulation d) Walk through of any built environment (if applicable) e) Texture studies f) e Portfolio.

ARC 271 ARCHITECTURAL DRAWING III (3) CSU

Lecture: 1 hour; Lab: 4 hour(s)

This is an architecture drawing class that will focus on construction documents for steel construction. The course will cover how these architectural drawings are documents that instruct all the stake holders how to use, build and maintain a high performance building. The course will explain how construction documents made out of concrete and masonry are connected to the life cycle of a building. It covers an integrated building approach as it identifies the deliverables for: programing (identify the need), design drawings (identify the solutions), construction documents (drawings used to build the building), operation/maintain (as built drawings) and assessment (analysis for upgrade and improvement). The student will prepare a complete set of construction documents for a simple steel building structure. Appropriate reference material that focus on concrete and masonry will be covered in class like fastening, flashing, crack control and others.

Student Learning Outcome:

Students complete set of construction documents for masonry and concrete A set of construction drawings with accurate implementation of building codes and space requirements Use BIM Building Information Model to analyze a case study Document smart manufacture techniques for buildings for a green environment Develop Submit an e Portfolio Integrate LEED Standards Integrate AIA Standards

ARC 285 DIRECTED STUDY - ARCHITECTURE (2) CSU

Lecture: 2 hour(s)

This course allows students to pursue a directed study in the Architecture Technology field on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in Architecture Technology.

ARC 341 GIS METROPOLITAN ACCESS PLANNING SYSTEMS I (3) CSU

Lecture: 1 hour; Lab: 4 hour(s)

This course will cover the interconnection of BIM, CAD, GIS, spatial systems and online mapping in one construct. GIS technology and related geospatial technologies will explore intelligent building drawings as they connect to multiple environments; ecological, buildings and socio economic forces. GIS are spatial drawings with multiple types of information associated with them; business, land use, roads, rivers, parcel maps, census, others. This course introduces fundamental concepts and functionality of spatial thinking and visual computation. The course uses the GIS analytical process to quantify and qualify multiple layers of spatial information applied to sustainable projects.

Student Learning Outcome:

As part of mapping projects, students will: Enter data into Geographic Information Systems (GIS) databases using techniques such as coordinate geometry, keyboard entry of tabular data, manual digitizing of maps, scanning or automatic conversion to vectors, and conversion of other sources of digital data. Perform geospatial data building, modeling, or analysis using advanced spatial analysis, data manipulation, or cartography software. Analyze Geographic Information Systems (GIS) data to identify spatial relationships or display results of analyzes using maps, graphs, or tabular data.

ARC 385 DIRECTED STUDY - ARCHITECTURE (3) CSU

Lecture: 3 hour(s)

This course allows students to pursue a directed study in the Architecture Technology field on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in Architecture Technology.

ART

ART 101 SURVEY OF ART HISTORY I (3) UC:CSU

Lecture: 3 hour(s)

This course encompasses the historic study of architecture, painting and sculpture, with incidental references to the related minor arts. A survey is made of the chronological development of Western and non-European art from the Prehistoric to the Renaissance, with special emphasis upon the cultural factors that contributed to its evolution.

Student Learning Outcome:

Students will identify, compare, and analyze Western and Non-Western art and architecture from the Prehistoric to the Renaissance and demonstrate knowledge of art terminology and artistic styles through objective and essay exams, oral presentations and museum projects.

ART 102 SURVEY OF ART HISTORY II (3) UC:CSU

Lecture: 3 hour(s)

A survey of the major visual arts of the Western world from the Early Renaissance to the present, linking art and architecture with social, economic, political and religious aspects of western and global cultures.

Student Learning Outcome:

Students will identify, compare, and analyze art and architectural styles, theories, and individual artistic expression from the Early Renaissance to present in the Western World while demonstrating knowledge of art terminology and artistic styles through objective and essay exams, oral presentations and museum projects.

ART 103 ART APPRECIATION I (3) UC:CSU

Lecture: 3 hour(s)

This course is designed specifically for those students who desire to expand their visual awareness through training in visual perceptual skills. The course includes exploration of the basic elements of art; visual skills are enhanced by practice in drawing techniques based on perception. Students will acquire a broad understanding of the nature of art through study of selected works from art history.

Student Learning Outcome:

Students will identify and compare the various media and techniques of arts as well as analyze the nature of art, the use of the elements and principles and identify selected works from art history.

ART 201 DRAWING I (3) UC:CSU

Lecture: 2 hour(s); Lab: 2 hour(s)

Instruction is given in basic pencil drawing, charcoal, pastel, and other sketching media. Painting in wash, ink, and watercolor, from still life and outdoor assignments is included. This is a course for beginners and non-art majors, as well as, a brush up course for artists.

Student Learning Outcome:

Students will create drawings in a variety of materials using line, shape, form and light logic.

ART 300 INTRODUCTION TO PAINTING (3) UC:CSU

Lecture: 2 hour(s); Lab: 2 hour(s)

An introduction to various painting materials, media, and techniques. Emphasis is placed on color mixing, value, intensity and compositional organization.

Student Learning Outcome:

Students will create paintings in a variety of media using color theory, color mixing, value, and intensity. Students will demonstrate compositional organization and techniques in their paintings.

ASTRONOMY

ASTRON 001 ELEMENTARY ASTRONOMY (3) UC:CSU

Lecture: 3 hour(s)

This course is a general introduction and overview of Astronomy and covers many topics including constellations, seasons, history of Astronomy, the electromagnetic spectrum, telescopes, the Earth and other planets of our solar system, the Sun, binary stars, the Milky Way Galaxy, properties of galaxies and the Big Bang Theory. Students are kept abreast of current developments in the field.

Student Learning Outcome:

1. To describe the origins of the Universe, the Big Bang Theory, and the present general structure of the Universe. 2. To recognize components and facts of the solar system, including planets, satellites, asteroids, comets, and theories of the origin of the solar system. 3. To examine the methods astronomers use to explore the natural phenomena of the universe including the scientific method, the nature of matter, energy, radiation and the historical development of astronomical ideas. 4. To describe the nature of stars, including star formation and evolution, stellar energy sources and how this is related to our sun. 5. To describe the nature of the Milky Way and other galaxies and their distribution in the universe and currently accepted theories of Cosmology. 6. To describe the current theory of the origin of life on Earth.

ASTRON 005 FUNDAMENTALS OF ASTRONOMY LABORATORY (1) UC:CSU

Lab: 3 hour(s)

This course provides the laboratory work to accompany or follow Astronomy 1. This course uses astronomical instruments and laboratory equipment. Includes work with celestial sphere, sky charts, optical bench, telescopes, spectroscopes, and photometer. The course requires field trips for evening observations.

Student Learning Outcome:

1. Be able to set up and use an astronomical telescope to observe and identify features of selected astronomical bodies. 2. Be able to examine and analyze data from astronomical charts and images. 3. Be able to use and examine a plan sphere and charts to identify constellations, stars and planets in the night sky, as demonstrated during evening viewing sessions. 4. Be able to identify constellations, stars, planets, and other objects in the night sky by direct observation.

AUTOMOTIVE AND RELATED TECHNOLOGY

AUTORTK 100 HEATING AND AIR CONDITIONING SYSTEMS THEORY, INSPECTION & RPR (3)

Lecture: 1 hour; Lab: 6 hour(s)

Instruction is offered in the area of (HVAC) heating, ventilation & air conditioning systems, with emphasis on function & testing of heater controls, heater cores, air conditioning compressors, clutch & controls.

Student Learning Outcome:

The students will be able to inspect and diagnose air conditioning components for damage, ware and performance using proper procedures and equipment. The student will be able to install an air conditioning manifold gage set and analyze pressure readings to determine system performance. The students will be able to operate various automotive scanners to communicate with air conditioning controllers (ECM ,PCM, BCM Etc.) retrieving repair codes to diagnose various components and sensors. The students will be able to rebuild, repair, or replace as necessary various air conditioning components using proper equipment and procedures.

AUTORTK 113 DRIVE TRAIN COMPONENTS PRINCIPLES AND PRACTICES (3) CSU

Lecture: 1 hour; Lab: 6 hour(s)

Instruction is offered in the, principles of operation, function and testing of manual/automatic transmissions and transaxles. Emphasis is placed on, power train systems, torque converter & planetary gear operation, gears & gear reduction. Laboratory instruction is offered in servicing of manual/ automatic transmissions including, electronic shift controls, hydraulic fundamentals, fluids and sealing, clutches, and differentials.

Student Learning Outcome:

The student will trace, explain and demonstrate how various types of planetary gear sets work. The student will disassemble/ reassemble various automatic/manual transmissions sub assembles and explain their operation. The student will disassemble various automatic/manual transmissions, reassemble, make all required adjustments and test for proper operation.

AUTORTK 114 STEERING, SUSPENSION, BRAKES, PRINCIPLES AND PRACTICES (3) CSU

Lecture: 1 hour; Lab: 6 hour(s)

This course provides instruction in the theory, design, principles, diagnostics, and proper system service of automotive brake, suspension, and steering systems.

Student Learning Outcome:

Identify, diagnose, troubleshoot and repair all components of various automotive braking systems Identify, diagnose, troubleshoot and repair all components of various automotive steering and suspension systems Perform wheel alignment

AUTORTK 121 BASIC ENGINE THEORY INSPECTION AND REPAIR (3) CSU

Lecture: 1 hour; Lab: 6 hour(s)

This course offers instruction in the types of operating principles and performance characteristics of automotive engines. Applied mathematics and related physics are emphasized throughout the course. Students will disassemble and assemble a complete engine and apply related theory to factory procedures.

Student Learning Outcome:

Define and explain the engine related components theory / operation and systematical method of troubleshooting system failures within the engine performance environment. Identify and describe component location / function and operation within their perspective systems. Identify the difference between component failure and lack of maintenance problems associated with engine related service, troubleshoot, test and repair. Charge a battery and perform a load test to determine the condition of the battery. Perform basic engine condition diagnosis and define basic principles of troubleshooting engine problems. Perform cranking vacuum, running vacuum, snap acceleration, exhaust restriction tests, power balance test, dry / wet compression test, and cylinder leakage test. Perform cooling system pressure test and dye leakage test. Perform oil pressure test. Perform Fuel System Pressure and Volume Test on a Fuel Delivery System, determine the state of system and compare test results to manufacturer's specifications and make the correct recommendations. Identify fuel injection system components describe basic theory and operation, and methods of testing and repair of components. Perform a fuel injection system tests, diagnose and service components and interpret the results. Identify basic fuel injection components and explain basic theory and operation of input and output devices. Identify common automotive tools and equipment used in fuel injection troubleshooting and repairs. Demonstrate safe and proper use of equipment. Know and follow state, federal, EPA and OSHA guidelines and regulations. Complete a written quiz, which is similar in format to tests given by the Automotive Service Excellence (ASE) with a score of 70% or higher. Identify parts and components. Demonstrate proper tool usage and repair techniques. Practice safe methods of using hand and power tools. Remove and replace parts. Identify and use the different types and sizes of fasteners used on electrical and electronic components Read trade and equipment manuals. Practice quality assurance standards. Use common sense. The student will be able to perform an engine vacuum test, compression test, cylinder power balance test, cylinder leak down test, oil leak & pressure test and exhaust restriction test.

AUTORTK 122 ELECTRICAL/ELECTRONIC SYSTEMS THEORY, INSPECTION & REPAIR (3) CSU

Lecture: 1 hour; Lab: 6 hour(s)

Instruction on theory, inspection & repair of automotive electronic/electrical systems and components. Emphasis is placed on charging, battery/starting & ignition systems component inspection, diagnosis & repair. This course also offers instruction on electrical wiring diagram analysis.

Student Learning Outcome:

Troubleshoot, diagnose and repair of electrical and electronic systems using the appropriate test equipment such as scanners, DVOMs (Digital Volt Ohm Meters), ETMs (Electrical Troubleshooting Manuals) and wiring schematic circuit diagrams. Diagnose automotive electrical problems, to include electrical principles, use of basic electrical test equipment, and how to interpret wiring diagrams, and to gather and analyze information. Diagnose and repair automotive batteries, starting, and charging, lighting systems, advanced automotive electrical systems, to include body electrical accessories, and basic computer control.

AUTORTK 123 FUEL & EMISSIONS SYSTEMS THEORY, INSPECTION & REPAIR (3) CSU

Lecture: 1 hour; Lab: 6 hour(s)

Instruction is offered on engine performance, diagnosis and repair. Emphasis is placed on ignition, fuel, and emission systems. Instruction is offered on related technologies of automotive fuel delivery systems, induction and scavenging systems. The proper use of test equipment and automotive engine evaluation procedures are stressed in this course.

Student Learning Outcome:

The students will complete appropriate NATEF task sheets provided in student work book accompanying text as related to fuel and ignition systems and tune-up.

AUTORTK 130 AUTOMOTIVE THEORY AND REPAIR I (3) CSU

Lecture: 1 hour; Lab: 6 hour(s)

Instruction is offered on the areas of advanced engine construction & use of engine diagnostic equipment, standard transmissions & clutches, with emphasis on diagnosis and repair procedures. Shop practice is offered on most areas of automotive repairs: engine, transmissions, drivability, brakes, suspension, steering, and automotive accessories.

Student Learning Outcome:

The student will be able to perform an engine vacuum test, compression test, cylinder power balance test, cylinder leak down test, oil leak & pressure test and exhaust paper test. The student will be able to use engine condition and performance data to determine necessary engine repair procedures. The student will be able to use industry standard tools and equipment to perform necessary engine repair procedures.

AUTORTK 131 AUTOMOTIVE THEORY AND REPAIR II (3)

Lecture: 1 hour; Lab: 6 hour(s)

Instruction is offered on the areas of advanced emission systems diagnosis, with emphasis on diagnosis & repair procedures to prepare vehicles for the State of California smog test. Shop practice is offered on most areas of automotive repairs: engine, transmissions, drivability, brakes, suspension, steering, and automotive accessories.

Student Learning Outcome:

The students will be able to inspect and diagnose emission components for damage, ware and performance using proper procedures and equipment. The students will be able to operate DSO'S/DMM'S to analyze electrical emission control circuits for correct electrical signals and performance using proper procedures. The students will be able to operate various automotive scanners to communicate with emission system controllers (ECM and PCM) retrieving repair codes to diagnose various components and sensors. The students will be able to repair, or replace as necessary various emission control components using proper equipment and procedures.

AUTORTK 135 COMPUTER CONTROL AND FUEL INJECTION (3) CSU

Lecture: 1 hour; Lab: 6 hour(s)

Instruction is offered in Automotive Computer Control and Fuel Injection Systems. Emphasis is placed on computer control electronic and fuel systems construction, function, inspection, component theory and operation, troubleshooting principles and engine condition diagnosis, testing,

Student Learning Outcome:

Students will utilize an automotive scan tool to retrieve Diagnostic Trouble Codes (DTC), and engine parameters/monitors. Students will troubleshoot, service, and repair automotive fuel systems.

AUTORTK 140 AUTOMOTIVE THEORY AND REPAIR IV (3) CSU

Lecture: 1 hour; Lab: 6 hour(s)

Classroom lecture is offered in the areas of brake systems, front suspension systems, batteries, starting and charging systems, with emphasis on diagnosis and repair procedures. Shop practice is offered in most areas of automotive repairs: engine, transmissions, tune up, brakes, suspension, steering, and automotive accessories, and various other repairs using available vehicles.

Student Learning Outcome:

The students will be able to inspect and diagnose braking, suspension/steering and battery/starter components for damage, ware and performance using proper procedures and equipment. The students will be able to operate DSO'S/DMM'S to analyze electrical braking, suspension/steering and battery/starter circuits for correct electrical signals and performance using proper procedures. The students will be able to operate various automotive scanners to communicate with brake, suspension/steering, and battery/starter controllers retrieving repair codes to diagnose various components and sensors. The students will be able to repair, rebuild or replace as necessary various break, suspension/steering, and battery/starter components using proper equipment and procedures.

AUTORTK 141 AUTOMOTIVE THEORY AND REPAIR V (3) CSU

Lecture: 1 hour; Lab: 6 hour(s)

Instruction is offered on, the use of electrical diagnostic equipment, interpretation of wiring diagrams, engine computer controls and charging systems. Shop practice is offered on most areas of automotive repairs: engine, transmissions, drivability, brakes, suspension, steering, and automotive accessories.

Student Learning Outcome:

The students will be able to inspect and diagnose charging, ignition and computer control components for damage, ware and performance using proper procedures and equipment. The students will be able to operate DSO'S/DMM'S to analyze electrical charging, ignition and computer control circuits for correct electrical signals and performance using proper procedures. The students will be able to operate various automotive scanners to communicate with charging, ignition, and engine controllers (ECM ,PCM, BCM Etc.) retrieving repair codes to diagnose various components and sensors. The students will be able to repair, or replace as necessary various charging, ignition, and computer control components using proper equipment and procedures.

AUTORTK 142 AUTOMOTIVE THEORY AND REPAIR VI (3) CSU

Lecture: 1 hour; Lab: 6 hour(s)

Instruction is offered on fuel injection, automatic transmissions & heating, ventilation & air conditioning systems, with emphasis on diagnosis and repair procedures. Shop practice is offered on most areas of automotive repairs: engine, transmissions, drivability, brakes, suspension, steering, automotive accessories, and various other repairs.

Student Learning Outcome:

The students will be able to inspect and diagnose fuel injection, automatic transmissions and air conditioning system components for damage, ware and performance using proper procedures and equipment. The students will be able to operate DSO'S/DMM'S to analyze electrical fuel injection, automatic transmission and air conditioning circuits for correct electrical signals and performance using proper procedures. The students will be able to operate various automotive scanners to communicate with fuel injection, automatic transmission and air conditioning controllers retrieving repair codes to diagnose various components and sensors. The students will be able to repair, rebuild or replace as necessary various fuel injection, automatic transmission and air conditioning components using proper equipment and procedures.

AUTORTK 144 CALIFORNIA STATE BUREAU OF AUTOMOTIVE REPAIR CLEAN AIR CAR (3)

Lecture: 1 hour; Lab: 6 hour(s)

The course is designed to upgrade knowledge of the students who are currently employed in the automotive field. This course also prepares students for employment and licensing in the California State Smog Check Program and prepares them for the California State Smog License Examination. Materials and content comply with Bureau of Automotive Repair requirements.

Student Learning Outcome:

Level One Engine and Emission Control Training Components: Level Two Smog Check Training Inspection Procedures

AUTORTK 185 DIRECTED STUDY - AUTOMOTIVE AND RELATED TECHNOLOGY (1)

Lecture: 1 hour

This course allows students to pursue a directed study in Automotive and Related Technology on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in Automotive and Related Technology.

AUTORTK 285 DIRECTED STUDY - AUTOMOTIVE AND RELATED TECHNOLOGY (2)

Lecture: 2 hour(s)

This course allows students to pursue a directed study in Automotive and Related Technology on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in Automotive and Related Technology.

AUTORTK 385 DIRECTED STUDY - AUTOMOTIVE AND RELATED TECHNOLOGY (3)

Lecture: 3 hour(s)

This course allows students to pursue a directed study in Automotive and Related Technology on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in Automotive and Related Technology

AUTORTK 941 COOPERATIVE EDUCATION - AUTOMOTIVE AND RELATED TECHNOLOGY (4)

Lecture: 4 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

AUTOMOTIVE COLLISION REPAIR

AUTOCOR 112 AUTO BODY CONSTRUCTION, REPAIR AND WELDING FUNDAMENTALS (9)

Lecture: 3 hour(s); Lab: 18 hour(s)

This course covers basic auto body construction types, nomenclature, body adjustments, and repairs. Instruction includes welding on high strength steels, alloys, and plastic composites. Replacement of structural and non-structural auto body components is also covered.

Student Learning Outcome:

The student will be able to show proper tool usage and demonstrate welding techniques according to I-CAR standards. The student will be able to analyze various types of structural and non-- structural damage.

AUTOCOR 122 INTERMEDIATE COLLISION REPAIR-PARTS REPLACEMENT, METAL REPAIR, FRAME STRAIGTENING & REFINISHING (9)

Lecture: 3 hour(s); Lab: 18 hour(s)

This course offers instruction in auto body repair procedures and alignment. Various repairs of metals, plastics and composites along with frame straightening techniques and refinishing procedures will be covered.

Student Learning Outcome:

Student will be able to perform panel replacement. Student will be able to perform frame measuring and assess frame for damage. Student will be able to prepare and refinish a panel

AUTOCOR 132 UNITIZED BODY PANEL, SECTION, & FRAME; REPLACEMENT & ALIGNMENT (9)

Lecture: 3 hour(s); Lab: 18 hour(s)

Instruction is given in bolt-on procedures and welding procedures of panel replacements and the use of pulling equipment for proper sheet metal alignment. Students will understand the techniques of outer body panel repairs, replacements, and adjustments. Students will repair, remove and replace steel / aluminum / SMC / plastic body panels, doors, deck lids, bumpers, and hoods. Students will adjust and align panels to manufacturer's specifications. Instruction is given in body section replacement and structural sectioning, including removing and replacing mechanical parts, using manufacturer's body repair manual and I-CAR recommendations. Measuring for cutting and proper alignment of sections is stressed. Students will understand the proper techniques of body/structural sectioning and anti-corrosion protection. Students learn proper frame alignment and the methods of straightening damaged frames and unitized body construction. Students learn to utilize computerized laser beam frame measuring equipment. Body shop practices are also covered.

Student Learning Outcome:

Students will utilize proper safety equipment when working in the lab. Students will properly remove and replace body panels to OEM specifications. Students will properly set up the Squeeze-type resistance spot welding machine. Students will properly create spot welds to factory specifications. Students will properly repair steel body panels. Students will properly repair aluminum body panels. Students will replace bolt-on aluminum body panels, riveted- bonded aluminum body panels, and adhesively bonded aluminum body panels. Students will properly prepare plastics for repair and welding. Students will be able to differentiate between High Strength Steel (HSS), Advanced High Strength Steel (AHSS), and Ultra High Strength Steel (UHSS). Students will be able to repair and replace complete and partial body frame panels made of HSS, AHSS, and UHSS. Students will be able to repair and replace complete and partial full-frame sections made of HSS, AHSS, and UHSS. Students will be able to take corrosion precautions and apply corrosion preventing materials where needed. Students will utilize proper safety precautions when measuring and straightening frames with equipment. Students will identify proper measurements by examining Body Dimension Specifications from vehicle manufacturers. Students will be able to evaluate the effects of impact forces through full-frame and unibody construction by measuring with specific gauge type measurements to OEM specification measurements found in Body Dimension Chards. Students will be able to evaluate the effects of impact forces through full-frame and unibody construction by measuring with specific computerized measuring systems and comparing the measurements of OEM specification measurements found in Software Dimension Charts. Students will be able to utilize various types of unibody and full-frame straightening equipment to include in-floor straightening equipment, portable body and frame pullers, rack straightening systems and bench straightening.

AUTOCOR 142 ADVANCED AUTOMOTIVE COLLISON REPAIR, ESTIMATING, REFINISHING, COLOR MATCHING (9)

Lecture: 3 hour(s); Lab: 18 hour(s)

Students are taught collision analysis for body, frame and refinishing of damaged vehicles. Students create damage reports for customers and insurance companies. Students are given access to Mitchell University online instruction and certification website. Instruction is given in proper repair procedures, nomenclature, and terminology so students can clearly justify damage reports to customers, insurance adjusters, and technicians. This course provides training on the basics of UltraMate Premier Suite-E Claim Manager, a tool that allows users to place all claim related data (estimates, images, etc.) into a single electronic claim folder. It will offer a review of auto collision repair techniques and includes lectures, demonstrations and guest speakers. Advanced instruction is offered in inspection, paint repair and repaint to I-CAR and industry standards. The DuPont Certification for Compliant Coatings Rule 1151 is taught in this course. It will include paint application problems and solutions. Spot and panel paint options including color matching are taught. Certification testing for the DuPont Certificate is given and certificates are awarded to qualifying students.

Student Learning Outcome:

Students will e able to create damage reports using Mitchell UltraMate Software.

AUTOCOR 148 PAINT PREPARATION AND APPLICATION (3)

Lecture: 1 hour; Lab: 6 hour(s)

Students receive instruction in the types and properties of paint, solvent and spot painting. Cause and effect relationships of paint and surface blemishes, paint application problems, repairs and final detailing as required to I-CAR and industry standards are introduced.

Student Learning Outcome:

Students will utilize proper safety equipment when spraying compliant coatings Students will ascertain and utilize the various types of safety equipment when spray painting Students will mix and formulate compliant coatings to Industry standards. Students will practice spraying spot and panel repairs Students will detail vehicles for delivery to customers

AUTOCOR 149 ESTIMATING BODY DAMAGE (3)

Lecture: 1 hour; Lab: 6 hour(s)

Students are taught body repair and computerized estimating collision

Student Learning Outcome:

1. Students will acquire supervisor skills relating to city, state, and national rules and regulations in regards to hazardous materials and employee safety. 2. Students will acquire certification for writing estimates using Mitchell UltraMate estimating software. 3. Students will properly identify vehicles. 4. Students will be able to demonstrate proper analysis of structural and non-structural vehicle damage. 5. Students will be able to recognize and illustrate accident reconstruction. 6. Students will be able to create damage reports using Mitchell UltraMate and CCC Pathways. 7. Students will be able to negotiate proper repair procedures with the customer, insurance adjuster, and the technician. 8. Students will be able to oversee proper repairs of vehicles to safe OEM standards.

AUTOCOR 185 DIRECTED STUDY - AUTOMOTIVE COLLISION REPAIR (1)

Lecture: 1 hour

This course allows students to pursue a directed study in Automotive Collision Repair on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in Automotive Collision Repair.

AUTOCOR 226 AUTOMOTIVE COLLISION REPAIR I (3)

Lecture: 1 hour; Lab: 6 hour(s)

This course introduces students to MIG welding, aluminum welding, and resistance welding. Students will learn to repair and replace body panels on unibody and full-frame vehicles. Repairing and replacing structural panels made of High Strength Steel (HSS), Advanced High Strength Steel (AHSS), and Ultra High Strength Steel (UHSS) are incorporated into this course. Students will learn aluminum welding techniques and panel bonding for both aluminum and steels. Students will understand the proper techniques of body/structural sectioning and anti-corrosion protection. Students will repair vehicles to industry standards.

Student Learning Outcome:

Students will utilize proper safety equipment when working in the lab. Students will properly remove and replace body panels to OEM specifications. Students will properly set up the Squeeze-type resistance spot welding machine. Students will properly create spot welds to factory specifications. Students will properly repair steel body panels. Students will properly repair aluminum body panels Students will be able to repair and replace complete and partial full-frame sections made of HSS, AHSS, and UHSS. Students will be able to take corrosion precautions and apply corrosion preventing materials where needed. Students will be able to evaluate the effects of impact forces through full-frame and unibody construction by measuring with specific gauge type measuring equipment and comparing the measurements to OEM specification measurements found in Body Dimension Charts. Students will be able to utilize various types of unibody and full-frame straightening equipment to include in-floor straightening equipment, portable body and frame pullers, rack straightening systems and bench straightening systems.

AUTOCOR 227 AUTO BODY AND FENDER II (3)

Lecture: 1 hour; Lab: 6 hour(s)

This course offers advanced training in refinishing, color mixing and matching of OEM (Original Equipment manufacturer) color codes. Proper paint gun operation and use of air pressure and spray patterns are emphasized, as well as VOC (Volatile Organic Compounds) log calculation systems. Students will learn to repair/repaint as required to I-CAR and industry standards. This course will emphasize on the STAR Training Program whose goal is to train technicians to reduce material consumption costs and pollution through increased spray efficiency.

Student Learning Outcome:

Students will utilize proper safety equipment when spraying compliant coatings. Students will learn how to use the sandpaper grading system. Students will understand proper techniques of preparing panels. Students will learn the proper operating and maintenance procedures for HVLP spray equipment. Students will learn proper mixing techniques. Students will properly apply DuPont compliant sealers, waterborne basecoats and clears. Students will learn the proper operating and maintenance procedures for Laser Touch spray system.

AUTOCOR 285 DIRECTED STUDY - AUTOMOTIVE COLLISION REPAIR (2)

Lecture: 2 hour(s)

This course allows students to pursue a directed study in Automotive Collision Repair on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in Automotive Collision Repair.

AUTOCOR 385 DIRECTED STUDY - AUTOMOTIVE COLLISION REPAIR (3)

Lecture: 3 hour(s)

This course allows students to pursue a directed study in Automotive Collision Repair on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in Automotive Collision Repair.

AUTOCOR 941 COOPERATIVE EDUCATION - AUTOMOTIVE COLLISION REPAIR (4)

Lecture: 4 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/occupational goals of the student.

BAKING, PROFESSIONAL

PROFBKG 101 ASSEMBLING AND DECORATING CAKES (2)

Lecture: 1 hour; Lab: 2 hour(s)
Prerequisite: Culinary Arts 112

The course provides an introduction to cake decorating and design. Students will recognize and prepare various piping methods as they pertain to a professional bakery.

Student Learning Outcome:

Recognize basic cake piping and frosting techniques Demonstrate various piping techniques Assess finished technique per classroom and industry standard

PROFBKG 112 BAKING PROCESSES AND THEORY OF INGREDIENTS (4)

Lecture: 2 hour(s); Lab: 6 hour(s)
Corequisite: Culinary Arts 112

Course covers the production of quick breads, introduction to puff pastry, laminated dough, and cookies with emphasis placed on mixing methods. The role of leavening agents, starches, chemical reactions of ingredients and the effect on heat and cold on products. Recipe and menu development, including ingredient selection will be discussed.

Student Learning Outcome:

Identify Beginning Baking terminology and bakers math Practice Various Baking methods of preparation Evaluate and critique finished product

PROFBKG 121 BEGINNING YEAST BREADS AND QUICKBREADS (6)

Lecture: 3.75 hour(s); Lab: 6.75 hour(s)
Prerequisite: Professional Baking 112 and Culinary Arts 112

Class introduces student to volume lean & rich yeast bread and quick bread production with an emphasis on flour usage, chemical and natural leavening agents, as well as fat and sugar ingredient identification. Speed, accuracy, and increased productivity are stressed along with preparation of a variety of bread products up to industry standards.

Student Learning Outcome:

Identify a wide variety of baking procedures Demonstrate and apply methods of preparation for yeast, laminated and quick-breads Compare and Contrast the various preparations and evaluate finished product

PROFBKG 122 ARTESIAN BREADS, SPECIALTY BREADS (6)

Lecture: 3.75 hour(s); Lab: 6.75 hour(s)

Recognize formulas and demonstrate the ability to alter formulas in yeast, rolled-in, and quick bread formulas central to this class. View bread baking from an artisan's perspective. Explore the fundamentals of baking science: How a formula works including changes of yields and altering percentages of ingredients in formulas to produce desired results are stressed. Work on increasing productivity, speed and accuracy is continued in this class.

Student Learning Outcome:

Identify advanced yeast/artisanal bread procedure and methods Prepare Various Yeast Bread Formulas Assess Completed products Revise Formula and procedure based on completed product and industry standard

PROFBKG 131 PLATED RESAURANT STYLE DESSERTS (6)

Lecture: 3.75 hour(s); Lab: 6.75 hour(s)
Prerequisite: Professional Baking 112; Professional Baking 121; Professional Baking 122; Culinary Arts 112

The course covers a wide range of baking techniques and topics with concentration on the composition of restaurant style plated desserts made up of a number of components.

Student Learning Outcome:

Differentiate various baking preparation of doughs, cakes, fillings, sauces and garnishes Demonstrate said preparations within a professional bakery setting Assess finished products according to industry standard

PROFBKG 132 MULTI-COMPONENT DESSERTS AND PASTRIES (6)

Lecture: 3.75 hour(s); Lab: 6.75 hour(s)
Prerequisite: Professional Baking 112; Professional Baking 121; Professional Baking 122; Professional Baking 131 and Culinary Arts 112

Students will discuss and demonstrate contemporary style multi-component plated restaurant style desserts. Topics include traditional composed desserts, modern menu fusion, international/ethnic and classical dessert combinations.

Student Learning Outcome:

Identify multi-component plated desserts used in the modern restaurant Demonstrate preparation of multi-component plated desserts Evaluate multi-component plated desserts

PROFBKG 141 ADVANCED BAKING CENTERPIECE AND DECORATING TECHNIQUES (6)

Lecture: 3.75 hour(s); Lab: 6.75 hour(s)
Prerequisite: Professional Baking 112; Professional Baking 121; Professional Baking 122; Professional Baking 131; Professional Baking 132; Culinary Arts 111; Culinary Arts 112

This class applies procedures and techniques for preparing advanced decorative bakery items for display in a professional food service facility. Students will prepare and demonstrate various advanced techniques including: Molded and tempered chocolate show pieces, marzipan, nougatine, pastillage, pulled and molded sugar, wedding and other occasional cakes, rolled and poured fondant, and gum paste will be prepared and evaluated.

Student Learning Outcome:

Recognize and Demonstrate preparation of advanced bakery techniques and procedures Evaluate finished products per class and industry standard

PROFBKG 941 COOPERATIVE EDUCATION - BAKING, PROFESSIONAL (4)

Lecture: 4 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

BARBERING

BAR 113 FRESHMAN BARBERING I (6)

Lecture: 3 hour(s); Lab: 9 hour(s)

The beginning course includes sanitation, client protection, scalp treatments, shampooing, hair cutting, finger waves, curl constructions, and manicuring.

Student Learning Outcome:

Student will be able to perform basic hair designs. Students will be able to perform hair sculpting procedures and practice industry safety and sanitation standards.

BAR 114 FRESHMAN BARBERING II (6)

Lecture: 3 hour(s); Lab: 9 hour(s)
Prerequisite: Barbering 113

Beginning course with plain facials, permanent waving techniques, hair cutting with a razor and clippers and thermal texture hair styling.

Student Learning Outcome:

Students will be to perform a plain facial using massage manipulations. Student will be able to demonstrate a plain straight back permanent wave. Student will be able to perform a variety of hair sculpting using the shears and clipper. Student will be able to demonstrate shaving techniques using the razor

BAR 123 BARBERING JR. SALON I (6)

Lecture: 3 hour(s); Lab: 9 hour(s)
Prerequisite: Barbering 114

The students will be exposed to intermediate instructions in chemical straightening, thermal straightening and curling, permanent waving, skin and hair care, with instructions of hair cutting.

Student Learning Outcome:

Students will be able to demonstrate application of chemical relaxers. Students will be able to identify chemical compounds for chemical services. Students will be able to demonstrate a resting facial. Students will be able to perform hair sculpting procedures using shears, razor and clippers.

BAR 124 BARBERNG JR SALN II (6)

Lecture: 3 hour(s); Lab: 9 hour(s)
Prerequisite: Barbering 123

The students are instructed in advanced permanent waving, soft permanent wave, men hairpieces, thermal straightening and curling, hair cutting, clipper cutting and electricity.

Student Learning Outcome:

Students will be able to perform advanced cold waving, soft permanent waving. Students will be able to perform chemical straightening. Students will demonstrate competence in hair cutting. Students will be able to demonstrate proper use of electricity.

BAR 133 BARBERING JR. SALON III (6)

Lecture: 3 hour(s); Lab: 9 hour(s)
Prerequisite: Barbering 133

The course will cover basic, intermediate, and advance hair coloring, bleaching, lighteners, facial hair color, and color correction techniques. Course will cover shaving techniques and soft perm waving. The subjects mentioned will be discussed.

Student Learning Outcome:

The students will be able to apply law of color in identifying and demonstrating the applications of basic and intermediate hair coloring, bleaching and toning. Students will be able to apply shaving and hair sculpting Student will be able to apply permanent/soft waving techniques.

BAR 134 BARBERING JR. SALON IV (6)

Lecture: 3 hour(s); Lab: 9 hour(s)
Prerequisite: Barbering 133;

The course will cover basic, intermediate, and advanced hair coloring, bleaching, lighteners, facial hair color, and color correction techniques.

Student Learning Outcome:

Students will be able to describe the benefits of facial massage. Students will be able to identify the 14 shaving areas of the face. Students will be able to discuss, identify, and name the sections of the head as applied to hair cutting.

BAR 143 BARBERING SR. SALON I (6)

Lecture: 3 hour(s); Lab: 9 hour(s)
Prerequisite: Barbering 124; Barbering 134

The students will review all areas of cosmetology. Theory is focused on what is required by State Board and practical assignments related to services provided. There will be emphasis on communication, customer service, time management, booking of appointments and proper sales attitude.

Student Learning Outcome:

Student will be able to perform a chemical straightener. Student will be able to demonstrate a resting facial. Student will be able to list and describe the properties of the hair and scalp.

BAR 144 BARBERING SR. SALON II (6)

Lecture: 3 hour(s); Lab: 9 hour(s)
Prerequisite: Barbering 143

The students will be introduced to clinic floor practicum and advanced client services. Mock State Board procedures for licensure will be employed. Business practices include: client services, effective communication, job search skills, networking, strategies for building a clientele, selling techniques, starting and operation a business.

Student Learning Outcome:

Student will model industry standard business practices including customer rapport, service planning, professional communication, client retention, referrals, marketing and cooperation with co-workers. Student will review individual competency requirements, both skill and theory, and passing a mock examination, student will demonstrate readiness to pass the state certification exam.

BIOLOGY

BIOLOGY 003 INTRODUCTION TO BIOLOGY (4) UC:CSU

Lecture: 3 hour(s); Lab: 3 hour(s)

This is an introductory course dealing with the fundamental properties of living things. The structure and physiology of plants and animals, with emphasis on humans, are covered. Relationships between biological communities, genetics, and evolution are stressed.

Student Learning Outcome:

1. Be able to explain the cell theory, and discuss the structure and function of cell organelles and basic cell division processes. 2. Explain mechanisms of evolutionary changes. 3. Discuss the consequences of the evolutionary processes on biological diversity and adaptation patterns. 4. Describe patterns and processes of heredity (with emphasis on humans) using both classical and molecular genetics. 5. Relate the structure of organs and organ systems of multicellular organisms to their specific functions. 6. Discuss factors that affect the structure of biological communities and ecosystems. 7. Use basic biological (ecological) principles to analyze major environmental issues.

BIOLOGY 005 INTRODUCTION TO HUMAN BIOLOGY (4) UC:CSU

Lecture: 3 hour(s); Lab: 3 hour(s)
The course includes basic biological principles as they apply to humans. The course will provide a foundation for advanced courses in Human Anatomy, Physiology, and
Microbiology. Topics include chemical principles, the cell, heredity, human anatomy and
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The course includes basic biological principles as they apply to humans. The course will provide a foundation for advanced courses in Human Anatomy, Physiology, and Microbiology. Topics include chemical principles, the cell, heredity, human anatomy and physiology, microbiology, pathology, ecology, and bioethics.

Student Learning Outcome:

1. Student will apply the scientific method to understand biological principles. 2. Student will describe basic principles in human biology such as biochemistry and the cell. 3. Student will describe different types of bacteria, their staining methods, and how they cause disease. 4. Student will describe the anatomy and physiology of human organ systems.

BIOLOGY 006 GENERAL BIOLOGY I (5) UC:CSU

Lecture: 3 hour(s); Lab: 6 hour(s)
Prerequisite: Chemistry 51 or higher

This is the first of a sequence of two General Biology courses designed for life science and pre-med majors. It deals with basic cellular processes within and between cells, metabolism, genetics and recombinant DNA technology.

Student Learning Outcome:

1. Discuss the cell theory. 2. Discuss how cell structure is related to its function. 3. Discuss metabolism, cell communication and cell division processes. 4. Describe patterns of inheritance and discuss processes of heredity using concepts in Mendelian and molecular genetics. 5. Solve genetic problems involving Mendelian traits 6. Discuss basic principles and applications of DNA technology.

BIOLOGY 007 GENERAL BIOLOGY II (5) UC:CSU

Lecture: 3 hour(s); Lab: 6 hour(s)
Prerequisite: Prerequisite: Biology 6;

This is the second of a sequence of two General Biology courses designed for life science and pre-med majors. It deals with basic concepts in evolution, systematics, anatomy, physiology and ecology of organisms.

Student Learning Outcome:

1. Explain mechanisms of evolutionary change. 2. Discuss consequences of evolution on biological diversity and adaptation patterns. 3. Reconstruct phylogeny and explain principles of phylogenetic reconstruction using morphological and molecular data. 4. Identify and classify major taxa using phylogenetic systematics and explain the basis of classification. 5. Describe the most important events in the history of life on earth. 6. Relate the structure of organs of multicellular eukaryotes (with emphasis on plants and animals) to their functions. 7. Discuss how abiotic and biotic factors affect individuals, populations, communities and ecosystems. 8. Use ecological principles to analyze human impact on environment.

BIOLOGY 185 DIRECTED STUDY - BIOLOGY (1) CSU RPT 2

Lecture: 1 hour

This course allows students to pursue directed study in Biology on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

Student will acquire the critical thinking and problem solving skills necessary for the study of a relevant topic in biology. Student will apply methods used by scientists while studying a selected topic in biology.

BIOTECHNOLOGY

BIOTECH 010 INTRODUCTION TO BIOMANUFACTURING I (4) CSU

Lecture: 3 hour(s); Lab: 3 hour(s)

This course offers an introduction to the concepts and laboratory skills used in biomanufacturing. The process of biomanufacturing is explored. Students will investigate practices, facilities and techniques used by companies in producing biomanufactured products such as drugs.

Student Learning Outcome:

Students will demonstrate an understanding of the purpose, fundamentals and regulations of biomanufacturing. Students will understand the science underlying biomanufacturing. Students will apply techniques and procedures applicable to biomanufacturing.

BIOTECH 012 INTRODUCTION TO BIOMANUFACTURING II (4)

Lecture: 3 hour(s); Lab: 3 hour(s)
Prerequisite: BIOTECHNOLOGY 010

This course expands on concepts from Introduction to biomanufacturing. It focuses on cell cultures, proteins and separation techniques as it applies to manufacturing products. The course also emphasizes environmental control in the industry. Laboratory focuses on applying techniques in molecular biology and chemistry to produce and assess a final product.

Student Learning Outcome:

Students will explain relevant biology and chemistry concepts as it applies to biomanufacturing. Students will apply techniques and procedures used in biomanufacturing to produce and assess a final product. Students will demonstrate an understanding of the lab environment and current good manufacturing practices.

BUILDING CONSTRUCTION TECHNIQUES

BLDGCTQ 002 PRE-EMPLOYMENT -APPLIED TRADES CALCULATIONS AND MEASUREMENTS (3)

Lecture: 3 hour(s)

This is an entry level course in applied calculations and measurements with special emphasis on application problems encountered in the utility, manufacturing, and construction industries.

Student Learning Outcome:

1. Add, subtract, multiply, and divide whole numbers, with and without a calculator. 2. Use a standard ruler, a metric ruler, and a measuring 3. Recognize some of the basic shapes used in the construction industry and apply basic geometry to measure them.

BLDGCTQ 007 WEATHERIZATION - PRACTICAL ENERGY EFFICIENCY TECHNIQUES (3)

Lecture: 3 hour(s)

This course provides expertise advice on various techniques that can be used to weatherize homes and other structures. The course is suitable for application by a professional home or energy inspector. Homeowners would also benefit from the knowledge and application of the simpler techniques. Efficiency techniques related to: Energy basics, sealing, insulating, window replacement/installation, environmental air, water, appliance energy efficiency, and lighting are just some of the areas that will be covered.

Student Learning Outcome:

Students pass Basic Weatherization test.

BLDGCTQ 008 WEALTHERIZATION-ENERGY EFFICIENCY PRACTICES (1)

Lab: 3 hour(s)

This course provides laboratory exercises to build skills necessary for the effective application of energy techniques that can be used to weatherize homes and other structures. Course is suitable for application by a professional weatherization contractor training entry level workers or a homeowner looking to improve their own home. Efficiency practices related to: Energy basics, sealing, insulating, window replacement/installation, environmental air, water, appliance energy efficiency, and lighting are just some of the areas that will be covered.

Student Learning Outcome:

Students install the 6 basic weatherization measures: Attic insulation, caulking gaps, window repair and glass cutting, door weather-stripping, water heater blanket, and low flow shower head.

BLDGCTQ 009 ENERGY AUDITOR - RESIDENTIAL (3)

Lecture: 3 hour(s)

A course focusing on residential energy requirements, loss and efficiency. How energy is used and lost will be discussed, along with the testing techniques and approaches to measure the amount of energy lost. Students will learn the components of an energy audit report and complete necessary forms.

Student Learning Outcome:

Students complete an energy audit form from testing data and take national certification test.

BLDGCTQ 010 ENERGY AND UTILITY INDUSTRY CAREERS (3) RPT 3

Lecture: 3 hour(s)

This course reviews the hot jobs in the energy and utility industry and outlines a method for the student to decide on their career path. Hiring process and interview skills will be explored. Fitness for duty and other physical and physiological characteristics will be discussed. An A to Z guide to private, State, Federal, and international career opportunities will be presented.

Student Learning Outcome:

1. List career opportunities. 2. Develop a self-career map/plan.

BLDGCTQ 011 CADD FOR SUSTAINABLE LANDSCAPE DESIGN (4)

Lecture: 3 hour(s); Lab: 3 hour(s)

This course covers the use of computer Aided Design/Drafting (CADD) applications specific to landscape professionals, including the introduction to CADD skills, block functions, Internet applications, three-dimensional design, presentation drawings, building systems, working drawings, and working drawing coordination.

Student Learning Outcome:

Students will complete a set of Three Dimensional Models with Libraries, Meta tags and Information using CAD MEP as the drawing tool for a sustainable landscape design project.

BLDGCTQ 012 ENERGY AUDITOR - RESIDENTIAL PRACTICES (1)

Lab: 3 hour(s)

A course focusing on the practical application of residential energy requirements, loss and efficiency. Testing techniques and measurement the amount of energy lost. Students will perform actual energy audits of simulated structures and complete necessary forms.

Student Learning Outcome:

-Perform building measurements for an energy audit to include, Combustion analysis, draft test, blower door test and duct test.

BLDGCTQ 014 CARPENTRY AND CONSTRUCTION FOR RENEWABLE ENERGY INSTALLERS (4)

Lecture: 3 hour(s); Lab: 3 hour(s)

This course covers the roof structure principles necessary for installation of solar panels. Construction techniques and principles of roof framing and construction will be emphasized. Roof covering and flashing will also be a focus of the course. The installation and mounting of different panel mounting systems will also be demonstrated and covered in class.

Student Learning Outcome:

Students construct and prepare a roof for Solar Panel installation.

BLDGCTQ 101 CONTRACT'S LICENSE LAW (3) CSU

Lecture: 3 hour(s)

Contractor's License Law is designed to prepare personnel in the construction industry on the California Law requirements for attaining a California State Contractor's License. Topics covered are License Law, Mechanic's Lien Law, Employment Regulations, Worker's Compensation, Safety in Employment and Business Management.

Student Learning Outcome:

SLO #1: Complete a mock contractor's license examination. SLO #1: Identify and interpret various Contractors Licensure regulations SLO #1: Identify and interpret mechanics lean laws and regulations.

BLDGCTQ 102 O.S.H.A. BASED SAFETY STANDARDS: CONSTRUCTION & INDUSTRY (2) RPT 3

Lecture: 2 hour(s)
(Same as Electrical Construction Maintenance 100)

This course provides instruction on industry safety and health rules as it applies to workers and employers within the construction industry. Topics such as fall protection, lock out tag out procedures, PPE, excavations, etc. are covered. Participants that meet the required hourly attendance and successfully pass the final exam will be eligible to receive their OSHA (30 hr) safety-training certificate.

Student Learning Outcome:

1. Recognize appropriate training requirements and training methods. 2. Define OSHA specific construction terms such as; competent person, construction work, confined space, working space, general duty clause. 3. Select situational appropriate PPE.

BLDGCTQ 215 SMALL WIND ENERGY SYSTEMS PRINCIPLES AND PRACTICES (3)

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)

This course is designed for individuals that have the basic electrical and mechanical skills of an energy technician or electrician and are looking to expand into the small wind energy field. This class will help one to develop the fundamental knowledge and skill sets typically required for small wind system practitioners and to help ensure safety, quality and consumer acceptance of small wind installations.

Student Learning Outcome:

1. Discuss the history and development of wind energy. 2. List the regions of the globe where wind is a renewable option. 3. Install the components needed for various wind renewable energy sources.

BLDGCTQ 911 COOPERATIVE EDUCATION - BUILDING CONSTRUCTION TECHNIQUES (1) C RPT 3

Lecture: 1 hour

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least (3) learning objectives to be accomplished on the job. The objective will be related to the educational/occupational goals of the student.

BLDGCTQ 921 COOPERATIVE EDUCATION - BUILDING CONSTRUCTION TECHNIQUES (2) C RPT 3

Lecture: 2 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least (3) learning objectives to be accomplished on the job. The objectives will be related to the educational/occupational goals of the student.

BLDGCTQ 931 COOPERATIVE EDUCATION - BUILDING CONSTRUCTION TECHNIQUES (3) C RPT 3

Lecture: 3 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

BLDGCTQ 941 COOPERATIVE EDUCATION - BUILDING CONSTRUCTION TECHNIQUES (4) C RPT 3

Lecture: 4 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

BUSINESS

BUS 001 INTRODUCTION TO BUSINESS (3) UC:CSU

Lecture: 3 hour(s)

Special emphasis is placed on the meaning and purpose of business in our society, the historical development of business, the general economic setting for business today, and the following business areas: forms of business organization, manufacturing, marketing, human relations, financing, accounting, budgeting, reports, government-based relations and the social responsibilities of people in business.

Student Learning Outcome:

Students will be able to explain and analyze different legal forms of business. Students will be able to identify various core concepts and tools of marketing, management, finance and accounting to develop and operate a business.

BUS 005 BUSINESS LAW I (3) UC:CSU

Lecture: 3 hour(s)

Introductory course in civil law emphasizing laws relating to contracts, agency, personal property, business organizations, partnerships, corporations, security transactions, and torts. Students also explore logical reasoning and the application of rules of law to everyday business affairs.

Student Learning Outcome:

1. Identify laws, rules, and regulations that bound the exchange of goods and services between producers and consumers in the marketplace.
2. Assess consumer's or producer's rights pursuant to a claim for compensation for harm incurred as a result of another's civil or criminal violation in the marketplace.

BUS 006 BUSINESS LAW II (3) UC:CSU

Lecture: 3 hour(s)

This course presents the relationship of law to business. Topics included are Sales, Products Liability, Secured Transactions, Consumer Protection, Debtors and Creditors, Partnerships, Corporations, Government Regulations and Real Property. Practice in the application of legal principles to business transactions is provided.

Student Learning Outcome:

1. Students will identify and apply general laws, rules and regulations to fact patterns that pertain to the UCC and the sale of goods between merchants.
2. Students will identify the legal issues and the duties and obligations of parties in disputes pertaining to Property, Wills and Trusts, Negotiable Instruments and Creditor Rights including the different types of Bankruptcy proceedings.

BUS 014 ORAL COMMUNICATIONS FOR CUSTOMER SERVICE (3)

Lecture: 3 hour(s)

Instruction will focus on the key issues of positive and productive customer service communications, identifying customer needs and problems and finding viable solutions.

Student Learning Outcome:

Student will be able to relate customer service behaviors to profits and customer retention Student will be able to demonstrate positive customer service language and behaviors, and active listening techniques.

BUS 022 THE BUSINESS OF ELECTRONIC COMMERCE (3) UC:CSU RPT 2

Lecture: 3 hour(s)

This comprehensive course emphasizes emerging online technologies and future trends with respect to e-commerce. In addition to the early development of e-commerce, strategies for e-commerce success, e-marketing, online payment methods, spamming, phishing, identity theft, and other e-commerce components will be explored.

Student Learning Outcome:

Students will be able to explore, research, analyze and critique electronic commerce business models.

BUS 032 BUSINESS COMMUNICATIONS (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)

The course emphasizes the concepts of successful written and oral communication skills in business in order to write effective business communications including letters, electronic communications, and short reports. This course also helps students develop the ability to create and present oral presentations.

Student Learning Outcome:

Students will become effective communicators to today's changing workplace. Students will learn the writing process as it applies to e-mail messages and memorandums.

BUS 033 TECHNICAL REPORT WRITING (3) CSU

Lecture: 3 hour(s)
Advisory: English 67

This course provides student with technical communication skills that help in finding and using information to share with others in the workplace. It also provides techniques that communicators use to analyze an audience and purpose, to create and find the best information on a subject, to arrange the information skillfully to meet the audience's needs and preferences, and to deliver the information effectively using the most appropriate software application.

Student Learning Outcome:

Students will plan and draft documents using templates and style in Microsoft application. Student will learn how to write collaboratively in an office environment.

BUS 038 BUSINESS COMPUTATIONS (3) CSU

Lecture: 3 hour(s)

This course provides the principles of mathematics, financial accounting and general business problems that include the following: Bank services including checking account and credit card account activity, payroll calculations, cash and trade discounts merchandise mark-up and inventory valuation, simple and compound interest, annuities, stock and bond transactions, business consumer loans, taxes and insurance, depreciation, financial statements, ratios, and business statistics.

Student Learning Outcome:

Students will demonstrate speed and accuracy in analyzing the fundamental processes of mathematics commonly used in making business calculations. Students will demonstrate an understanding of mathematical skills required in other business subjects such as accounting, management, marketing, and computer operations. Students will demonstrate an understanding of budgeting with respect to planning and the balanced scorecard. Students will produce projected pro-forma financial statements and make forecasts based upon the data.

BUS 040 BUSINESS PROJECT MANAGEMENT (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)

This course will identify all phases of project management. Students will learn the tools for completing projects on time and within budget. Specific topics will include project life cycles, setting objectives, identifying activities and resources, work breakdown structures, work-flow, network analysis, contingency planning, scheduling, budgeting, work in progress and reporting. Special emphasis will be placed on MS project.

Student Learning Outcome:

Students will be able to develop project proposals in regards to identifying project scope, developing project schedules while utilizing efficient resources, determining cost in respect to project risk and effectively closing the proposed project while building strong relationships with customers and partners.

BUS 385 DIRECTED STUDY - BUSINESS (3)

Lecture: 3 hour(s)

This course allows students to pursue directed study in Business Administration on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in Business

BUS 941 COOPERATIVE EDUCATION - BUSINESS (4) CSU

Lecture: 4 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

CARPENTRY

CRPNTRY 105 CALCULATIONS AND MEASUREMENT FOR WOODWORKING STUDENTS I (3)

Lecture: 3 hour(s)

This course covers the basic math skills needed to perform in the construction field. Emphasis is placed on the basic operations and how they are applied to carpentry. Measurement calculations will be performed in both standard and metric measurements.

Student Learning Outcome:

Students complete national certification test for Introduction to Construction Math

CRPNTRY 111 CONSTRUCTION I (7) CSU

Lecture: 3 hour(s); Lab: 12 hour(s)

This course covers use and operation of hand tools, machine tools, and portable electric tools commonly used in the construction trades. Fundamentals of residential foundation and wall construction, use of rough and finish hardware, glues and adhesives, federal, state, and local building codes and ordinances are studied

Student Learning Outcome:

Students will use common power and hand tools to perform basic framing operations. The student will calculate rafter lengths and cut the rafters to size using a Skill saw. The student will fasten framing members together using hand nailing techniques. The student will measure and cut framing members to length using the worm drive circular saw, power miter box and radial arm saws.

CRPNTRY 111A CONSTRUCTION IA (3) CSU

Lecture: 3 hour(s)

This course covers use and operation of hand tools, machine tools, and portable electric tools commonly used in the construction trades. Fundamentals of residential foundation and wall construction, use of rough and finish hardware, glues and adhesives, federal, state, and local building codes and ordinances are studied.

Student Learning Outcome:

Students identify parts of a wood framed structure and describe their purpose

CRPNTRY 111B CONSTRUCTION IB (2)

Lab: 6 hour(s)

This is the second laboratory course in the Carpentry 111 sequence. This covers use and operation of hand tools, machine tools, and portable electric tools commonly used in the construction trades. Fundamentals of residential foundation and wall construction will be the focus of this course.

Student Learning Outcome:

Students will use common power and hand tools to perform basic framing operations. The student will calculate rafter lengths and cut the rafters to size using a Skill saw. The student will fasten framing members together using hand nailing techniques. The student will measure and cut framing members to length using the worm drive circular saw, power miter box and radial arm saws.

CRPNTRY 111C CONSTRUCTION IC (2)

Lab: 6 hour(s)

This course covers use and operation of hand tools, machine tools, and portable electric tools commonly used in the construction trades. Fundamentals of wall construction, roof construction, and applications of federal, state, and local building codes and ordinances are studied.

Student Learning Outcome:

Students will use common power and hand tools to perform basic framing operations. The student will calculate rafter lengths and cut the rafters to size using a Skill saw. The student will fasten framing members together using hand nailing techniques. The student will measure and cut framing members to length using the worm drive circular saw, power miter box and radial arm saws.

CRPNTRY 114 HAND AND POWER TOOL APPLICATION (4) CSU

Lecture: 1 hour; Lab: 9 hour(s)
Corequisite: Carpentry 115 & 117

This course focuses on the safe use of hand and power tools used in the carpentry and construction industry. Operation and safety instruction will be given on both portable and stationary power tools including skill saws, table saws, jointers, planers, band saws, etc. Students will use hand and power tools to complete woodworking and carpentry projects.

Student Learning Outcome:

Students demonstrate knowledge of safe use of hand and power tools.

CRPNTRY 115 BASIC BLUEPRINT READING AND CORE CONSTRUCTION SKILLS (3) CSU

Lecture: 1 hour; Lab: 6 hour(s)

Students will be familiarized with the basic terms for construction drawings, components, and symbols. Emphasis is placed on the different types of drawings and how to interpret and use the dimensions.

Student Learning Outcome:

Students identify information from blueprints such as dimensions, symbols and location. Students complete 8 NCCER certification tests on Basic Safety, Introduction to Construction Math, Introduction to Hand tools, Introduction to Power Tools, Introduction to Construction Drawings, Basic Communication Skills, Basic Employability Skills, and Introduction to Material Handling.

CRPNTRY 117 CONSTRUCTION MATERIALS (2)

Lecture: 1 hour; Lab: 3 hour(s)
Corequisite: Carpentry 114;

This course focuses on building materials such as concrete, steel and a variety of woods used for exterior and interior carpentry finish; insulation, flashing, roof covering, interior and exterior wall covering, wood trim and other finish materials in residential construction; rough and finish hardware such as nails, screws, bolts, timber fasteners, gang nailing, power fastening, powder actuated fasteners, joist hangers, clips, etc.; methods of installation

Student Learning Outcome:

Students identify basic construction materials including framing, finishing, millwork and wood materials

CRPNTRY 123 BASIC HOUSE CONSTRUCTION (6) CSU

Lecture: 2 hour(s); Lab: 12 hour(s)
Prerequisite: Carpentry 114; Corequisite: Carpentry 124

This course covers the basic framing operations involved in residential construction. Students will complete the framing process using large scale models. Basic construction tool operations, and processes will be emphasized and tested.

Student Learning Outcome:

Students will use common power and hand tools to perform basic framing operations. The student will calculate rafter lengths and cut the rafters to size using a Skill saw. The student will fasten framing members together using hand nailing techniques. The student will measure and cut framing members to length using the worm drive circular saw, power miter box and radial arm saws.

CRPNTRY 124 BLUEPRING READING AND ESTIMATING I (3)

Lecture: 1 hour; Lab: 6 hour(s)
Prerequisite: Carpentry 115; Corequisite: Carpentry 123

Students will learn blueprint reading through the process of estimation. Material take offs, detail methods, labor calculations, profit, overhead and bid procedures will be examined.

Student Learning Outcome:

Complete framing material take-off Calculate concrete requirements for a slab foundation

CRPNTRY 126 CONSTRUCTION II (6)

Lecture: 3 hour(s); Lab: 9 hour(s)

The course focuses on principles of estimating, quantity take-off, materials and labor costs, bidding procedures, for new construction, renovation for both residential and commercial construction.

Student Learning Outcome:

Students calculate construction materials, labor and business costs for a residential structure from a set of plans.

CRPNTRY 130 CALCULATIONS AND MEASUREMENT FOR WOODWORKING STUDENTS II (3) CSU

Lecture: 3 hour(s)

Students complete common woodworking and construction calculations with an emphasis on percentage, area and volume calculations, algebra, geometry and trigonometry as they apply to the carpentry and woodworking trades. Students calculate concrete volume, lumber requirements and material quantities, as well as perform length and size calculations.

Student Learning Outcome:

Students will apply basic mathematical operations to construction calculations such as area, volume diagonal length and roof angles.

CRPNTRY 132 APPLIED BLUEPRINT READING (3)

Lecture: 1 hour; Lab: 6 hour(s)
Prerequisite: Carpentry 124; Corequisites: Carpentry 133, 134, & 135

This course focuses on construction documents used in the construction of residential and light commercial projects. Emphasis is placed on the interpretation of drawings, standards, specifications, and symbols used in construction. Gathering information for material requirements and estimates will be major component of the course.

Student Learning Outcome:

Identify architectural items, quantities, and specifications from construction drawings.

CRPNTRY 133 ADVANCED RESIDENTIAL ESTIMATING (3)

Lecture: 3 hour(s)
Prerequisites: Carpentry 123 & 124; Corequisites: Carpentry 132, 134, & 135

Students complete a comprehensive residential estimation project including materials, labor, overheads costs and expenses. Students perform materials take off using detailed and unit methods. Students estimate concrete and rebar requirements, lumber needs for floor, wall and roof construction as well as interior and exterior finishing materials. Labor costs are also calculated for common construction jobs. At the end of the course students will complete a comprehensive estimate for a residential construction project.

Student Learning Outcome:

Prepare a takeoff estimate of materials using a set of architectural plans.

CRPNTRY 134 ADVANCED RESIDENTIAL CONSTRUCTION (4)

Lecture: 2.5 hour(s); Lab: 4.5 hour(s)
Prerequisites: Carpentry 123; Corequisites: Carpentry 132, 133, & 135

This course is a continuation of Basic Construction, Students will complete framing operations involving floor, wall, ceiling and roof construction. In addition, this course goes into greater depth in the areas of rough in for the preparation of electrical, plumbing, heating and ventilation.

Student Learning Outcome:

Students will detail wall plates off architectural plans that includes layout for all holdowns, posts, windows, doors, channels, shear panels, studs and anchor bolts.

CRPNTRY 135 CONCRETE CONSTRUCTION (2)

Lecture: 1 hour; Lab: 3 hour(s)
Prerequisite: Carpentry 123; Corequisites: Carpentry 132, 133, & 134

Students explore and experience concrete concepts and forming. Emphasis will be placed on slab on grade forms and construction and stem forming. Students will use leveling instruments to square, level and layout buildings and forms.

Student Learning Outcome:

Estimating cubic yardage of concrete for footings, foundations walls and slabs from architectural drawings.

CRPNTRY 144 RESIDENTIAL EXTERIOR FINISH (4)

Lecture: 1 hour; Lab: 9 hour(s)
Prerequisites: Carpentry 134; Corequisite: Carpentry 145

In this course, students will learn the tools, techniques, and principles of residential exterior finish. Students will install exterior finish materials such as siding, stucco and shingles. An emphasis will be placed on installation of roofing materials such as asphalt shingles.

Student Learning Outcome:

Students will assemble and install a door jamb, hang a door and install door stop.

CRPNTRY 145 RESIDENTIAL INTERIOR FINISH (5) CSU

Lecture: 2 hour(s); Lab: 9 hour(s)
Prerequisite: Carpentry 134; Corequisite: Carpentry 144

The course will focus on the materials, practices, and principles of interior finish work for residential construction. Emphasis will be placed on drywall installation and finishing, installation of interior door, installation of door hardware. Students will also install door and window casing, baseboard, and crown molding. Stair layout and construction will also be reviewed.

Student Learning Outcome:

Students complete door installation including the installation of lock set, casing, weather-stripping, threshold and door shoe.

CRPNTRY 148 COMPUTER ASSISTED ESTIMATING I (3)

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)

Students receive instruction in using specialized software to generate 2D and 3D plans for residential construction. Emphasis will be placed on using the developed plans to generate estimation information including material and cut lists.

Student Learning Outcome:

Students create a complete set of building documents including material lists.

CRPNTRY 149 COMPUTER ASSISTED ESTIMATING II (3) CSU

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)

This course includes instruction in advanced computer assisted estimating techniques. students will learn to make design projects with emphasis on material applications, structural design, framing lumber, concrete reinforcement, producing a cost break down and bidding procedures.

Student Learning Outcome:

Students will prepare complete cost estimates using software, including cost of materials and labor from outside sources.

CRPNTRY 170 INTRODUCTION TO CNC WOODWORKING MACHINING AND PROGRAMMING (3)

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)

This course presents an introduction to the use of a CNC router. Topics include safety, feed speeds, spindle speeds, tooling, setups and programming to include related attachments and accessories for the machine.

Student Learning Outcome:

Create a name plate with the CNC Router using MaterCam.

CRPNTRY 185 DIRECTED STUDY - CARPENTRY (1)

Lecture: 1 hour

This course allows students to pursue directed study in Carpentry on a contract basis under the direction of a supervising instructor. Students must be enrolled in at least one carpentry course to take this class.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a project based on a topic in Carpentry and related topics.

CRPNTRY 240 BUILDING CONSTRUCTION SPECIALTIES (4) CSU

Lecture: 2.5 hour(s); Lab: 4.5 hour(s)

This course is a continuation of Basic Construction, Students will complete framing operations involving floor, wall, ceiling and roof construction. In addition, this course goes into greater depth in the areas of rough in for the preparation of electrical, plumbing, heating and ventilation.

Student Learning Outcome:

Students will detail wall plates off architectural plans that includes layout for all holdowns, posts, windows, doors, channels, shear panels, studs and anchor bolts.

CRPNTRY 241 BLUEPRINT READING AND ESTIMATING (3)

Lecture: 3 hour(s)

Students will learn blueprint reading through the process of estimation. Material take offs, detail methods, labor calculations, profit, overhead and bid procedures will be examined.

Student Learning Outcome:

Prepare a takeoff estimate of materials using a set of architectural plans.

CRPNTRY 243 BUILDING ESTIMATING I (3)

Lecture: 3 hour(s)

This course introduces the process of construction estimation. Students will learn the estimation process of individual systems as well as the whole structure. Students complete building data sheets and materials price sheet. They will gain experience through a complete materials estimate of a structure.

Student Learning Outcome:

Students complete a material take-off for a construction project from blueprints.

CRPNTRY 247 BUILDING ESTIMATING II (3) CSU

Lecture: 3 hour(s)

Students complete a comprehensive residential estimation project including materials, labor, overheads costs and expenses. Students perform materials take off using detailed and unit methods. Students estimate concrete and rebar requirements, lumber needs for floor, wall and roof construction as well as interior and exterior finishing materials. Labor costs are also calculated for common construction jobs. At the end of the course students will complete a comprehensive estimate for a residential construction project.

Student Learning Outcome:

Prepare a takeoff estimate of materials using a set of architectural plans.

CRPNTRY 251 BUILDING CODES I: INTERNATIONAL RESIDENTIAL CODE (IRC) (3) CSU

Lecture: 3 hour(s)

This class will examine the most current version of the International Residential Code. Topics will include administration and planning, and the structure, logic and layout of the code. It will then take up relevant code sections for all phases of residential construction. Namely, foundation, floor, wall, roof/ceiling, electrical, plumbing and mechanical, lighting distribution and fixtures, appliance installation and swimming pools. Study materials will be aligned with the most current ICC publications.

Student Learning Outcome:

Student will provide the code section and installation locations for smoke detectors

CRPNTRY 252 BUILDING CODES II: INTERNATIONAL RESIDENTIAL CODE (IRC) (3) CSU

Lecture: 3 hour(s)

This course provides the most updated international building codes. Topics to be covered are: Administration, Use and Occupancy Classifications, types of Construction, General Heights and Areas, Fire and Smoke Protection features and Systems, Means of Egress, Accessibility, Detailed Occupancy Requirements, Exterior Wall Coverings, Roofs, and Foundations, Special Inspections, Concrete, Masonry and Wood, Interior Finishes, Interior Environment, Gypsum Board, Elevators, and Glazing.

Student Learning Outcome:

Student will provide code sections for Means of Egress code provisions.

CRPNTRY 285 DIRECTED STUDY - CARPENTRY (2)

Lecture: 2 hour(s)

This course allows students to pursue directed study in Carpentry on a contract basis under the direction of a supervising instructor. Students must be enrolled in at least one Carpentry course to take this class.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a project based on a topic in Carpentry and related topics.

CRPNTRY 385 DIRECTED STUDY - CARPENTRY (3)

Lecture: 3 hour(s)

This course allows students to pursue directed study in Carpentry on a contract basis under the direction of a supervising instructor. Students must be enrolled in at least one Carpentry course to take this class.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a project based on a topic in Carpentry and related topics.

CRPNTRY 941 COOPERATIVE EDUCATION - CARPENTRY (4)

Lecture: 4 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

CHEMICAL TECHNOLOGY

CHEM T 111 APPLIED CHEMISTRY I (5) CSU

Lecture: 3 hour(s); Lab: 6 hour(s)

This course is dedicated to students majoring specifically in chemical, process plant, biomanufacturing and biotechnology career options. Students will study the principles and concepts of chemistry and laboratory techniques including an introduction to physical methods of analysis involving the use of separation, equipment and instrumental methods used in the chemical, process plant and biotechnology industries.

Student Learning Outcome:

1. Students will identify chemical, process plant, bio-manufacturing industry skills/concepts and safety requirements 2. Students will perform dimensional analysis, density and temperature calculations 3.Students will identify physical and chemical properties and changes

CHEM T 113 APPLIED CHEMISTRY MATHEMATICS I (2)

Lecture: 2 hour(s)

This course will offer basic applications from mathematical operations to problem-solving strategies in the chemical industry required of chemical technicians working in the chemical industry.

Student Learning Outcome:

1. Student will apply basic mathematical skills to solve chemical laboratory technology problems. 2. Students will evaluate and determine the correct calculation(s) for a given mathematical problem 3. Student will calculate mathematical problems providing the correct significant figures as a result

CHEM T 121 APPLIED CHEMISTRY II (5) CSU

Lecture: 3 hour(s); Lab: 6 hour(s)

This course covers the principles as applied to aqueous solutions, energy and chemical reactions, modern atomic theory, chemical bonding, gases, chemical equilibrium, acids and bases, nuclear chemistry, and introduction to organic chemistry. Laboratory studies include qualitative and quantitative analysis of common anions and cations and introduction to instrumental analysis. The skills learned will be those required for employment in the waste water treatment, chemical, process operations, biotechnology and biomanufacturing career options.

Student Learning Outcome:

Students will demonstrate knowledge of chemical behavior in quantum theory. Student will demonstrate knowledge of principle energy levels. Student will demonstrate knowledge wavelengths and frequency concepts.

CHEM T 123 APPLIED CHEMISTRY MATHEMATICS II (2)

Lecture: 2 hour(s)

This course covers further applications of mathematical techniques in chemical technology including techniques used in chemistry, physics and technical mathematics. The emphasis includes further topics in units, concentration, graphs, equilibrium, thermodynamics, and oxidation-reduction and industry related methods.

Student Learning Outcome:

Student will discuss and explain the concept of average mass and explore how counting can be done by weighing Student will discuss and calculate solution preparation problems molarity and standard deviation Student will explain and calculate pH and pOH

CHEM T 131 INDUSTRIAL PROCESSES (3)

Lecture: 1 hour; Lab: 6 hour(s)

Instruction is given in the fundamental theories of chemical and physical processes used in various manufacturing industries. Also, instruction is given in operation of equipment including the introduction of concepts of quality control validation as it relates to manufacturing in regulated industries.

Student Learning Outcome:

Apply GLP and GMP techniques Perform the synthesis of lab samples Analyze unknown lab samples Perform and evaluate all lab procedures in a final team project Apply computer applications necessary for data acquisitions

CHEM T 132 QUANTITATIVE AND INSTRUMENTAL ANALYSIS I (5) CSU

Lecture: 3 hour(s); Lab: 6 hour(s)

This course is dedicated to the study of principles and concepts of Quantitative and Instrumental methods of analysis including techniques using gravimetric and titrimetric analysis. Instrumental analysis such as, Gas Chromatography, Infrared Chromatography, Atomic Absorption and others are offered.

Student Learning Outcome:

1. Apply GLP and techniques, perform the synthesis of lab samples, analyze unknown lab samples.

CHEM T 133 ORGANIC CHEMISTRY I (4) CSU

Lecture: 2 hour(s); Lab: 6 hour(s)

This course includes systematic study of hydrocarbons including nomenclature, physical and chemical properties, occurrences, synthesis, and reactions of alkanes, alkenes, and alkynes. Laboratory studies include distillations, liquid-liquid extractions, and chromatographic techniques and IR spectroscopy.

Student Learning Outcome:

The student will be able to recognize and name aliphatic hydrocarbons applying the IUPAC nomenclature rules.

CHEM T 140 MICROBIOLOGY LABORATORY TECHNIQUES FOR TECHNICIANS (1)

Lab: 3 hour(s)

This course studies techniques and procedures used regularly in microbiology laboratories. It includes laboratory safety and aseptic techniques, media preparation, handling and maintaining cultures and the use and care of lab equipment, especially microscopes. The course is designed specifically for chemical, process and biomanufacturing technicians.

Student Learning Outcome:

Demonstrate knowledge of lab safety techniques and standards and use them appropriately in the laboratory. Isolate and transfer pure cultures of bacteria under aseptic conditions. Demonstrate knowledge of bacteria and fungi commonly found in microbiology laboratories. Prepare and observe under brightfield microscope stained bacterial smear. Determine bacterial population density using standard plate count and turbidimetric techniques. Prepare different types of liquid and solid culture media. Prepare and properly store stock bacterial cultures. Evaluate effects of physical and chemical agents on microbial growth. Identify the scientific name of an unknown pure cultures of microbe using standard microbiological techniques.

CHEM T 141 BASIC EMPLOYMENT INFORMATION (1)

Lecture: 1 hour

Instruction covers safety precautions, professional ethics, health habits, responsibilities to the customer and management, personal appearance, employment trends and professional organizations. The course also includes writing resources and cover letters, and job search techniques.

Student Learning Outcome:

Student will compose a resume using current employment formats ¢Student will construct a cover letter and thank you note ¢Student will demonstrate the ability successfully interview for an employment opportunity ¢Student will create and present power point presentations covering employment criteria

CHEM T 142 QUANTITATIVE AND INSTRUMENTAL ANALYSIS II (5)

Lecture: 3 hour(s); Lab: 6 hour(s)

This course is a continuation of Quantitative and Instrumental Analysis I. It is an advanced course covering the theory and application of modern instrumentation and techniques for the analysis of chemical systems such as fuels, waste water, food and beverages, pharmaceuticals, metal etc. It also includes interpretative spectroscopy and computer-assigned experimentation.

Student Learning Outcome:

Apply GLP and techniques Perform the synthesis of lab samples Analyze unknown lab samples Evaluate basic flowcharts in instrumentation Evaluate and quantify the sample composition and concentration

CHEM T 143 ORGANIC CHEMISTRY II (4) CSU

Lecture: 2 hour(s); Lab: 6 hour(s)

This course addresses IUPAC nomenclature, physical and chemical properties, occurrences, synthesis, reactions and industrial applications of aldehydes and ketones, alcohols, ethers including cyclic and crown ethers, aromatic compounds, esters, amino acids, peptides, proteins, carbohydrates synthetic and natural polymers, polarimetry, IR,UV/VIS, NMR spectroscopy, and mass spectrometry.

Student Learning Outcome:

The student will be able to elucidate the structure of complex organic molecules by analyzing and interpreting the nmr spectrum of such compounds.

CHEM T 161 SPECIAL PROJECTS I (1)

Lab: 3 hour(s)

This course addresses the principles and instrumentation of gas chromatography (GC) with particular reference to Shimadzu GC-8A gas chromatograph.

Student Learning Outcome:

The student will be able to perform distillation analysis of ethyl acetate and n-butyl acetate mixture using the GC-8A gas chromatograph.

CHEM T 168 CHEMICAL QUALITY CONTROL I (2)

Lab: 6 hour(s)

This course provides Introduction to quantitative and qualitative analysis of common anions and cations in aqueous solution.

Student Learning Outcome:

The student will be able to assign oxidation states to individual atoms in molecules and ions and balance redox equations under acidic and basic conditions.

CHEMISTRY

CHEM 051 FUNDAMENTALS OF CHEMISTRY I (5) UC:CSU

Lecture: 4 hour(s); Lab: 3 hour(s)
Prerequisite: Mathematics 114 or Mathematics 115;

This course with laboratory emphasizes the principles of inorganic chemistry and introduces elementary organic chemistry. It is planned primarily for health science majors, as a preparatory course for higher-level chemistry courses, and for non-science majors requiring a one-semester course with laboratory. High school students may obtain both: high school and college credit for this course. UC/CSU systems limit Chem 51/ Chem 65 credit to one course.

Student Learning Outcome:

1. Students will apply basic chemistry concepts to solve problems using the scientific method: a) Categorize matter according to its physical state and according to its chemical composition b) Describe the atom in terms of subatomic particles and their properties c) Name inorganic compounds d) Classify, balance and perform calculations with chemical reactions e) Explain properties of matter in terms of electron configurations f) Calculate concentration of solutions g) Solve acid-base, redox, and radioactivity problems h) Recognize simple organic compounds 2. Students will perform quantitative experiments and relate experimental data to concepts learned in class

CHEM 070 INTRODUCTORY ORGANIC AND BIOCHEMISTRY (4) UC:CSU

Lecture: 3 hour(s); Lab: 3 hour(s)
Prerequisite: Chemistry 51 or Chemistry 65 or Chemistry 101

This course studies the structure, physical properties and nomenclature of organic compounds and biomolecules. Simple chemical reactions are introduced. Students use physical and chemical properties of compounds to characterize them in the laboratory. It is strongly recommended to take this course before taking chemistry 211. This course provides credit towards the Associate of Sciences degree in Chemistry

Student Learning Outcome:

1. Students will name small organic compounds; hydrocarbons, alcohols, ethers, thiols, aldehydes, ketones, carboxylic acids, esters, amines and amides 2. Students will describe the structure of small organic compounds. 3. Students will classify constitutional and stereoisomers 4. Students will describe structure and identify physical and chemical properties of carbohydrates, lipids, proteins and nucleic acids 5. Students will use the physical and chemical properties of compounds to characterize them in the laboratory.

CHEM 101 GENERAL CHEMISTRY I (5) UC:CSU

Lecture: 3 hour(s); Lab: 6 hour(s)
Prerequisite: Mathematics 125

In lectures students learn nomenclature, atomic structure, quantum theory, bonding theories and molecular geometry, chemical equations, stoichiometry, thermochemistry, solid, liquid and gaseous states and related forces, gas laws, solutions and colligative properties, periodic relationships, and acid base theories. Laboratory exercises are quantitative in nature and are related to the lecture topics. This is the first semester of a one-year course in chemistry intended for majors in the natural sciences (chemistry, biochemistry, biology, physics, pre-medicine), mathematics, and engineering.

Student Learning Outcome:

1. Students will apply fundamental principles of chemistry to identify problems, propose solutions and demonstrate concepts. a) Students will use the Scientific method to solve problems using the proper units, precision and significant figures. b) Interpret the law of conservation of mass c) Calculate molar mass of compounds and molarity of solutions d) Analyze atomic theory, subatomic particles and isotopes e) Translate a word equation into a chemical equation, balance it and use it for stoichiometric calculations. f) Analyze precipitation, acid base, oxidation-reduction, equations g) Illustrate kinetic theory of ideal gases h) Analyze the units of energy and express a thermochemical equation i) Illustrate the concept of enthalpy and enthalpy change j) Use quantum numbers to define electrons. k) Illustrate the building up principle with the periodic table relating periodic properties to electron configuration. l) Describe ionic and covalent bonds m) Use Lewis formulas to illustrate the concepts of resonance, the octet rule and formal charge n) Relate bond lengths and bond orders to bond energies. o) Describe phase diagrams and properties of the solid, liquid and gaseous states of matter and relate their properties to intermolecular forces. p) Express concentration of solutions and analyze colligative properties of solutions. 2. Students will perform experiments and draw conclusions form experimental data

CHEM 102 GENERAL CHEMISTRY II (5) UC:CSU

Lecture: 3 hour(s); Lab: 6 hour(s)
Prerequisite: Chemistry 101;

In lectures students receive the theory and application of chemical kinetics, general and aqueous equilibria, thermodynamics, electrochemistry, nuclear chemistry, descriptive chemistry, structure and bonding in transition metal complexes and carbon compounds. In the laboratory students put into practice what is learned in lecture to experiments in reaction kinetics, chemical qualitative analysis, chemical and spectroscopic quantitative analysis, titration techniques, and electrochemistry.

Student Learning Outcome:

1. Students will describe kinetic, equilibrium and redox concepts for inorganic reactions and apply radioactivity principles a) Relate rates of reactions to mechanisms a) Evaluate rates of reactions and their dependence on concentration and temperature b) Illustrate and evaluate dynamic equilibrium and effect of catalysts the effect of catalysis c) Interpret the Arrhenius, Brosnted-Lowry and Lewis concepts of acids and bases, analyze relative strength of acids and base and relationship of molecular structure to acid strength d) Define and determine the pH of solutions d) Describe and analyze acid base equilibria e) Assess the properties of salt solution and buffer solutions and perform acid base titrations f) Define the solubility product Ksp and apply it to calculate solubility of compounds g) State the first, second and third laws of thermodynamics and perform calculations for phase transitions and chemical changes h) Relate free energy to equilibrium constants and temperature i) Balance redox reactions and illustrate their applications. j) Define radioactivity, formulate nuclear equations and evaluate nuclear stability k) Identify, describe and interpret the properties of main-group elements, transition elements and coordination compounds 2. Students will perform experiments to illustrate these concepts following safety practices in the laboratory.

CHEM 185 DIRECTED STUDY - CHEMISTRY (1)

Lecture: 1 hour

This course allows students to pursue directed study in Chemistry on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The student will formulate a research project based on a specific chemistry topic, interpret the current chemical research literature on that topic and write a report about it.

CHEM 211 ORGANIC CHEMISTRY FOR SCIENCE MAJORS I (5) UC:CSU

Lecture: 3 hour(s); Lab: 6 hour(s)
Prerequisite: Chemistry 102

Structure, dynamics, equilibrium and nomenclature of organic compounds including conformational analysis, potential energy plots, hybridization, reaction mechanisms and molecular modeling. Students employ modern synthetic and chromatographic techniques. Guest speakers enhance the topics covered in class. This course is part of the transfer sequence for careers in the physical, biological, and health sciences and a requirement for the Associate of Sciences degree in Chemistry.

Student Learning Outcome:

1. Students will describe structure dynamics and equilibrium of organic compounds i.e. Hydrocarbons, haloalkanes, alcohols, thiols, ethers, sulfides and epoxides a) Describe bonding and structure of functional groups in organic compounds. b) Name them according to the IUPAC system. c) Relate their physical properties to structure. d) Inspect conformations of alkanes and cycloalkanes. e) Describe chirality, optical activity and inspect properties of stereoisomers. f) Evaluate acidity of organic compounds and illustrate the thermochemistry of acid-base reactions. g) Describe preparation and reactions of organic compounds including mechanisms, reaction intermediates and potential energy diagrams. h) Employ multi-step organic synthesis and rethrosynthesis to produce the functional groups learned in class 2. Students will employ modern synthetic and chromatographic techniques to characterize organic synthesis.

CHEM 212 ORGANIC CHEMISTRY FOR SCIENCE MAJORS II (5) UC:CSU

Lecture: 3 hour(s); Lab: 6 hour(s)
Prerequisite: Chemistry 211;

Continuing studies of organic molecules started in chemistry 211 with emphasis on carbonyl containing compounds, macromolecules and naturally occurring nitrogen and oxygen-containing compounds. Non-covalent interactions and catalyst. A mechanistic approach to reactions and a focus on multi-step synthesis is emphasized throughout the course. This course is part of the transfer sequence for careers in the physical, biological, and health sciences and a requirement for the Associate of Sciences degree in Chemistry.

Student Learning Outcome:

1. Students will describe structure dynamics and equilibrium of organic compounds; organolithium, organomagnesium compounds, diorganocopper reagent, carbenes, carbenoids, aldehydes, ketones, carboxylic acids, derivatives of carboxylic acids, dinenes, amines and benzene as well as other aromatic compounds. a) Describe bonding and structure of the functional groups in organic compounds. b) Name according to the IUPAC system. c) Relate physical properties to structure and inspect chirality. d) Apply spectroscopic techniques to characterize organic compounds. e) Describe preparation and reactions of organic compounds including mechanisms, reaction intermediates and potential energy diagrams. f) Examine stability of organic compounds g) Employ multi-step organic synthesis and rethrosynthesis to produce the functional groups learned in class 2. Students will employ modern synthetic, chromatographic and spectroscopic techniques to prepare and characterize them. 3. Students will perform multi-step synthesis and draw conclusions form experimental data.

CHEM 285 DIRECTED STUDY - CHEMISTRY (2) CSU

Lecture: 2 hour(s)

This course allows students to pursue directed study in Chemistry on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The student will formulate a research project based on a specific chemistry topic, interpret the current chemical research literature on that topic and write a report about it.

CHEM 385 DIRECTED STUDY - CHEMISTRY (3) CSU

Lecture: 3 hour(s)

This course allows students to pursue directed study in Chemistry on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The student will formulate a research project based on a specific chemistry topic, interpret the current chemical research literature on that topic and write a report about it.

CHILD DEVELOPMENT

CH DEV 001 CHILD GROWTH AND DEVELOPMENT (3) UC:CSU

Lecture: 3 hour(s)
Advisory: English 28

This course examines the major physical, psychosocial, and cognitive/ language developmental milestones for children, both typical and atypical, from conception through adolescence. There will be an emphasis on interactions between maturational processes and environmental factors. While studying developmental theory and investigative research methodologies, students will observe children, evaluate individual differences and analyze characteristics of development at various stages.

Student Learning Outcome:

1. Analyze major developmental milestones for children from conception through adolescence in the developmental domains and compare and contrast various theoretical frameworks that relate to the study of human development.

2. Examine the effects that social context have on children's development. These include but are not limited to cultural, economic, political, historical factors.

3. Differentiate between various theories that are related to children's development.

4. Collect research data using child observations, surveys, and/or interviews and analyze information according to various developmental theories.

5. Compare and contrast typical and atypical developmental characteristics at each stage.

6. Discuss the impacts that interaction between genetic and social/ environmental factors has on young children's development in physical, cognitive, and socio-emotional domains.

CH DEV 002 EARLY CHILDHOOD: PRINCIPLES AND PRACTICES (3) CSU

Lecture: 3 hour(s)
TB clearance required. Prerequisite: Child Development 1

An examination of the underlying theoretical principles of developmentally appropriate practices applied to programs, environments, emphasizing the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, creative and intellectual development for all children. This course includes a review of the historical roots of early childhood programs and the evolution of the professional practices promoting advocacy, ethics and professional identity.

Student Learning Outcome:

1. Articulate the best teaching and care practices in ECE field and the history of education, methods of delivery systems, various program types, philosophies, and ethical standards. 2. Develop a personal philosophy of teaching from a professional point of view based upon theoretical perspective. 3. Evaluate ECE settings, curriculum, and teaching strategies using indicators of quality early childhood practice that support all children and their families. 4. Discuss the value of play as a tool for developing skills, knowledge, dispositions, and strengthening relationships among young children. 5. Compare and contrast a variety of guidance and interactions strategies to increase children's social competence and promote a caring and responsive classroom community. 6. Analyze the correlation between observation, planning, implementation, and assessment in developing effective strategies and positive environment for learning and development.

CH DEV 007 INTRODUCTION TO CURRICULUM IN EARLY CHILDHOOD EDUCATION (3) CSU

Lecture: 3 hour(s)
Prerequisites: Child Development 1; Child Development 2

This course presents an overview of knowledge and skills related to providing appropriate curriculum and environments for young children from birth to age 6. Students will examine a teacher's role in supporting development and engagement for all young children. This course provides strategies for developmentally-appropriate practice based on observation and assessments across the curriculum, including 1) academic content areas, 2) play, art, and creativity, and 3) development of social-emotional, communication, and cognitive skills.

Student Learning Outcome:

Students will be able to: 1. Investigate and apply developmentally appropriate principles and learning strategies to positively influence all young children's development and acquisition of knowledge and skills.

2. Evaluate the teachers' role in providing best and promising practices in early childhood programs.

3. Compare and contrast play-based curriculum that supports children's cognitive, language, creative, physical and social/emotional development.

4. Design and implement curriculum based on observation and assessment to support play and learning using developmental, inclusive and anti-bias principles in collaboration with families to support all children.

CH DEV 008 CURRICULUM IN EARLY CHILDHOOD EDUCATION (3) CSU

Lecture: 3 hour(s)
Prerequisite: Child Development 1; Child Development 2 and Child Development 7

Students design and evaluate developmentally appropriate curriculum and environments for young children from birth to age 8. Based on the value of play, students demonstrate the teacher's role in applying theory to practice in supporting children's concept development. Preparing and assessing the implementation of curriculum will include but not be limited to: language and literacy, social studies, art and creativity, music and rhythm, perceptual motor development, mathematics, natural and physical sciences.

Student Learning Outcome:

Demonstrate and design the active implementation of an integrated curriculum.

CH DEV 010 HEALTH, SAFETY AND NUTRITION (3) CSU

Lecture: 3 hour(s)
Advisory: English 21Students are required to participate in and pass the American Red Cross Infant/Child CPR and First Aid Course

This course introduces the laws, regulations, standards, policies and procedures and early childhood curriculum related to child health, safety, and nutrition. The key components that ensure physical health, mental health and safety for both children and staff will be identified along with the importance of collaboration with families and health professionals. This course also focuses on integrating the concepts into everyday planning and program development for all children. Students are required to participate in and pass the American Red Cross Infant/Child CPR and First Aid course.

Student Learning Outcome:

1. Develop strategies to promote the mental and physical health of children and adults in a culturally and developmentally appropriate environment. 2. Demonstrate the understanding of risk factors in programs that affect children's health and safety. 3. Analyze and identify the nutritional needs of children at different developmental stages. 4. Explain the interrelationship of health, safety and nutrition and its connection to development. 5. Evaluate regulations, standards, and policies and procedures related to health, safety, and nutrition in support of young children, teachers and families; as well as identify the health, safety and environmental risks in children's programs. 6. Identify the required health and safety components in a quality early childhood program and the importance of collaboration with families and the community.

CH DEV 011 CHILD, FAMILY AND COMMUNITY (3) CSU

Lecture: 3 hour(s)
Advisory: English 21

An examination of the developing child in a societal context focusing on the interrelationship of family, school and community and emphasizes historical and socio-cultural factors. The processes of socialization and identity development will be highlighted, showing the importance of respectful, reciprocal relationships that support and empower families.

Student Learning Outcome:

1. Identify the major socializing agents and analyze the impact of home, school, peers, media and community on a child's development. 2. Examine the American educational and political policies and socioeconomic system as to how these factors affect both the development and interactions of children and their families.

3. Demonstrate understanding of research on social changes, transitions and challenges that confront children, families, schools and communities.

4. Compare and contrast strategies that involve all family members to develop respectful and equal relationships with their children and enhance their children's development and learning.

5. Inspect community resources and agencies that are available to assist children, families, and community.

6. Examine one's own self-identity, values, beliefs, and goals as related to family history, cultural backgrounds, and life experiences, and evaluate the effects of these factors have on children's relationships with families.

CH DEV 022 PRACTICUM IN CHILD DEVELOPMENT I (4) CSU

Lecture: 2 hour(s); Lab: 6 hour(s)
Prerequisite: Prerequisite: Child Development 1; and Child Development 2 and Child Development 7 and Child Development 8; and Child Development 11. Students are required to complete 90 hours at an approved field site. Must be available between 8:00 a.m. and noon

In this course the student will practice and demonstrate developmentally appropriate early childhood program planning and teaching competencies under the supervision of ECE/CD faculty and other qualified early education professionals. Students will utilize practical classroom experiences to make connections between theory and practice, develop professional behaviors, and build a comprehensive understanding of children and families. Child centered, play-oriented approaches to teaching, learning, and assessment; and knowledge of curriculum content areas will be emphasized as student teachers design, implement and evaluate experiences that promote positive development and learning for all young children.

Student Learning Outcome:

1. Integrate understandings of children characteristics and needs to develop healthy, safe, respectful, supportive and challenging learning environments for all children. 2. Evaluate the effectiveness of an early childhood environment, curriculum, parent involvement, and teaching strategies to improve teaching practices for all children. 3. Utilize the observation and assessment outcomes to design, implement, and evaluate curriculum activities and daily routines. 4. Demonstrate the abilities to apply a variety of effective approaches, strategies and techniques that support positive relationships with children and adults. 5. Critically reflect one's own teaching experiences to guide and improve collaborative practice.

CH DEV 023 PRACTICUM IN CHILD DEVELOPMENT II (4) CSU

Lecture: 2 hour(s); Lab: 6 hour(s)
Prerequisite: Child Development 22. Students are required to complete 90 hours at an approved field site. Must be available between 8:00 a.m. and noon

This course provides an advanced practicum experience. Students apply assessment strategies to plan, implement, and evaluate developmentally appropriate activities. Techniques that promote partnerships between teachers and families are developed. Educational philosophy statement, a resume and a professional portfolio are created. State law requires a TB test (Mantoux Test) or chest x-ray. In addition to the seminar class, students are required to complete a minimum of 90 hours at an APPROVED field site.

Student Learning Outcome:

Design, implement and evaluate curriculum activities based on observation and assessment of young children. Apply a wide array of effective approaches, strategies and tools in developing relationships with children and colleagues. Evaluate how teachers involve families in their children's development and learning. Critically assess one's own teaching experiences to guide and inform practice.

CH DEV 030 INFANT AND TODDLER STUDIES I (3) CSU

Lecture: 3 hour(s)
Prerequisite: Child Development 1

This course provides an in-depth study of cognitive/language, social/emotional and perceptual/motor developmental domains and milestones of infants from birth to 36 months. As well as, an overview of major theories including attachment, brain development, the value of play, early intervention and relationship-based care in the context of family systems: culture, home language, and traditions. Students will be introduced to the laws and regulations of safe healthy environments and the rights of all infants and toddlers including children at-risk for disabilities. Class instruction includes objective observations of infants and toddlers in diverse settings.

Student Learning Outcome:

Recognize major developmental milestones in infants and toddlers and explain the stages and characteristics of infants/toddlers' physical, cognitive and social and emotional development.

CH DEV 031 INFANT AND TODDLER STUDIES II (3) CSU

Lecture: 3 hour(s)
Prerequisite: Child Development 1 and Child Development 30

This course implements the principles of inclusive, respectful care-giving for infants and toddlers within a variety of program designs, routines and schedules. Topics cover typical and atypical development, principles of early intervention, design, implementation and assessment of developmentally appropriate curriculum and environment; health, safety and licensing issues. Coursework includes documentation of learning through observation, guidance towards self-regulation, family communications and community resources. Current research within the context of home language, culture and traditions will be addressed.

Student Learning Outcome:

Students will evaluate principles of respectful care focusing on routines and schedules.

CH DEV 034 OBSERVING AND RECORDING CHILDREN'S BEHAVIOR (3) CSU

Lecture: 3 hour(s)
Prerequisite: Child Development 1

This course focuses on the appropriate use of a variety of assessment and observation strategies to document child development, growth, behaviors, play and learning, and to join with families and professionals in promoting children's success. Recording strategies, rating systems, portfolios, and multiple assessment tools are explored. Child observations will be conducted and analyzed.

Student Learning Outcome:

1. Critically compare the purpose, value and use of formal and informal observation and assessment strategies and ethical implications within cultural and social contexts in early childhood settings. 2. Describe and evaluate the characteristics, strengths, and limitations of common observation methods and assessment tools with all children's developmental, cultural and linguistic characteristics. 3. Demonstrate systematic observation methods to provide data to assess the impact of the environment, interactions and curriculum on all domains of children's learning and development.

CH DEV 038 ADMINISTRATION & SUPERVISION OF EARLY CHILDHOOD PROGRAMS I (3) CSU

Lecture: 3 hour(s)
Prerequisites: Child Development 1; Child Development 2; Child Development 10; Child Development 11

This course examines administrative principles and practices for Early Childhood Programs. Topics covered include: licensing regulations, leadership skills, budget preparation and analysis, personnel management, parent involvement programs and community resources. Professionalism and quality standard are emphasized. Partially fulfills licensing requirement for the director.

Student Learning Outcome:

Students will incorporate licensing guidelines to design an early childhood space that meets the needs of children, staff members and parents within a reasonable budget.

CH DEV 039 ADMINISTRATION & SUPERVISION OF EARLY CHILDHOOD PROGRAMS II (3) CSU

Lecture: 3 hour(s)
Prerequisite: Child Development 38

This course provides training for administrators of Early Childhood Programs on a variety of topics pertaining to administration of early childhood programs. Topics include: state and federal regulations, computer applications for administration, grant and proposal development, advocacy, leadership skills and team management techniques, developing a comprehensive parent partnership, working with Desired Results, and legal issues. This course partially fulfills the licensing requirement for the director.

Student Learning Outcome:

Student will analyze his/her own administrative style and utilize management strategies that match individual's leadership style, evaluate his/her own ability and develop a timeline for a personal and professional development plan. Formulate strategies to create a positive climate and motivate the staff.

CH DEV 042 TEACHING IN A DIVERSE SOCIETY (3) CSU

Lecture: 3 hour(s)

This course will examine the development of social identities in diverse societies including theoretical and practical implications affecting young children, families, programs, teaching, education and schooling. Various classroom strategies will be explored emphasizing culturally relevant and linguistically appropriate anti-bias approaches supporting all children in becoming competent members of a diverse society. Course includes examination on issues related to social identity, stereotypes and bias, social and educational access, media and schooling. Course also involves self-reflection of one's own understanding of educational principles in integrating anti-goals in order to better inform teaching practices and/or program development.

Student Learning Outcome:

1. Compare and contrast the identity developmental theories and discuss the various impacts on young children's social identity. 2. Investigate different aspects of children's experience as members of families targeted by social bias, considering the significant role of education in reinforcing or contradicting such experiences. 3. Critically assess the components of linguistically and culturally relevant, inclusive, age-appropriate, anti-bias approaches in promoting optimum learning and development. 4. Analyze the impact of personal experiences and social identity on teaching effectiveness in various social contexts.

CH DEV 044 EARLY INTERVENTION FOR CHILDREN WITH SPECIAL NEEDS (3) CSU

Lecture: 3 hour(s)
Prerequisite: Child Development 1 & 30

This course is designed for students interested in specializing in or working with young children with special needs and their families. Instruction focuses on accommodating and adapting the physical environment, instructional strategies and curriculum to meet the needs of differently able children from birth through preschool.

Student Learning Outcome:

Students will recognize the needs of a family with a young exceptional child and propose an intervention approach that is appropriate for their needs.

CH DEV 045 PROGRAMS FOR CHILDREN WITH SPECIAL NEEDS (3) CSU

Lecture: 3 hour(s)
Prerequisite: Child Development 1, 2, & 44

This course is an overview of programs providing special education services for children with special needs focusing on preschool through school age. It will include a study of various programs, legislation, characteristics of exceptionalities and educational implications. Observation in schools will be required.

Student Learning Outcome:

Students will assess characteristics of a quality special education class/ program and services necessary for children with special needs.

CH DEV 046 SCHOOL AGE PROGRAMS I (3) CSU

Lecture: 3 hour(s)
Prerequisite: Child Development 1

The students will be introduced to the care of school age children. This course is designed for those currently working, or planning to work in before and after school child care. Students will develop age-appropriate curriculum, learn how to support the family and make use of community resources.

Student Learning Outcome:

Students will compare diverse models of school age care to assess how programs meet the needs of school age children. They will apply their understanding of developmental needs by preparing curriculum activities to support children's growth and development.

CH DEV 047 SCHOOL AGE PROGRAMS II (3) CSU

Lecture: 3 hour(s)
Prerequisite: Child Development 46

Introduction to before and after school age programs. Topics covered are guidance of child behavior, the child in context of the family, community and administration of programs. Hiring and supervision of staff, working with parents and marketing and advertising the school age program will be also covered.

Student Learning Outcome:

Students will learn how to evaluate a quality school age program

CH DEV 057 CHILDREN ETHNIC IDENTITY DEVELOPMENT AND AWARENESS (3) CSU

Lecture: 3 hour(s)
Prerequisite: Child Development 1

This course explores children's ethnic identity developmental process and their awareness of identity issues. Students will examine ethnic identity developmental stages, the impact of culture, ethnic traditions, values and beliefs on children, and the challenges of identity formation process that children encounter within multiple social and cultural contexts. Culturally sensitive assessment methods and intervention programs to support families from diverse backgrounds will also be discussed.

Student Learning Outcome:

1. Compare and contrast various theoretical frameworks that relate to the study of identity formation. 2. Apply various culturally sensitive strategies to teaching experiences.

CH DEV 065 ADULT SUPERVISION/EARLY CHILDHOOD MENTORING (2) CSU

Lecture: 2 hour(s)
Corequisite: Child Development 23 or Child Development 39

The class focuses on the principles and practices of supervision and evaluation of staff in Early Childhood Programs. Emphasis is placed on the role of experienced teachers who mentor or supervise new teachers and student teachers. This meets supervision requirement for the Child Development Permit.

Student Learning Outcome:

Students will be able to demonstrate ability to evaluate a preschool classroom based on developmentally appropriate guidelines and to facilitate positive interaction between adults in the center/classroom environment.

CH DEV 941 COOPERATIVE EDUCATION - CHILD DEVELOPMENT (4) CSU

Lecture: 4 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

COMMUNICATION STUDIES

COMM 101 PUBLIC SPEAKING (3) UC:CSU

Lecture: 3 hour(s)

This introductory speech course emphasizes techniques of public speaking including writing and delivery of speeches to inform and persuade. Students refine critical thinking, research, organizational, and time management skills. They learn to adapt a message to any audience and occasion

Student Learning Outcome:

1. 1. Student will draft and deliver in front of a live audience and well-organized speech: 2. Student will deliver both informative and persuasive speeches: 3. Students will identify and evaluate evidence in support of claims used in both informative and persuasive speeches.

COMMUNITY PLANNING/ ECONOMIC DEVELOPMENT

COMPLAN 001 INTRODUCTION TO COMMUNITY ECONOMIC DEVELOPMENT (3) CSU

Lecture: 3 hour(s)

This course is an introduction to the theory, history, and practice of community development. The course covers: neighborhood development and community building strategies; land use and real estate development; and business and labor force development strategies used to revitalize urban neighborhoods. Students will produce a neighborhood plan using e-planning tools including: asset maps, a housing plan and a workforce development plan. The course is also offered as three modules that run concurrently with the full course.

Student Learning Outcome:

Students will create a neighborhood revitalization plan that will include a needs assessment, a community engagement process and economic development strategy to increase jobs, income and assets.

COMPLAN 002 INTRODUCTION TO COMMUNITY ORGANIZING (3) CSU

Lecture: 3 hour(s)

This course focuses on community organizing efforts by people working together to improve their neighborhoods and cities. The course prepares students to become professional organizers, community developers, and effective citizen leaders. The course explores the history, theory, and different approaches to grassroots community organizing. Students will analyze the current context for organizing, the impact of social change theories, organizing strategies, tools and new methodologies used in community organizing.

Student Learning Outcome:

Students will develop a community organizing plan to address critical conditions in a low income community.

COMPLAN 003 AFFORDABLE HOUSING DEVELOPMENT (3) CSU

Lecture: 3 hour(s)

Develop real estate development skills needed to build multi-family affordable housing projects. Through project-based learning, you will recognize the stages of the development process; analyze the feasibility of a project, including neighborhood, site and financial analyses; and identify sources and uses of financing and project management, marketing and operations.

Student Learning Outcome:

Students will formulate an affordable housing plan targeting problems faced by low-income residents of the city.

COMPLAN 005 SECTOR DEVELOPMENT AND EMPLOYMENT STRATEGIES (3) CSU

Lecture: 3 hour(s)

This course will focus on how a strong understanding of industry sectors can be linked to viable job creation and employment strategies. Particular attention will be devoted to sector initiatives and training programs in the greater Los Angeles region.

Student Learning Outcome:

Students will examine and evaluate a workforce development plan in the community economic development sector.

COMPLAN 006 MANAGING NON-PROFIT AND PUBLIC ORGANIZATIONS (3) CSU

Lecture: 3 hour(s)

This course deals with the organizational opportunities and challenges faced by directors and managers of non-profit and public service organizations. Students will gain an understanding of the roles and accountabilities of non-profit directors and managers and learn to work effectively within such organizations by recognizing and applying knowledge about different governance structures and the functional domains common to most public benefit organizations including strategic and operational planning, fund development and community engagement.

Student Learning Outcome:

Students will create a nonprofit program plan to include: analysis oc immunity resources, fundamental actions, multiple strategies in forming nonprofit programs

COMPLAN 007 CONTEMPORARY ISSUES AND STRATEGIES IN POPULAR EDUCATION AND ORGANIZING (3) CSU

Lecture: 3 hour(s)

This course will explore current issues of land use, housing, workers' rights, environmental justice and the fight for jobs in Los Angeles by utilizing field research and direct interaction with local non-profit organizations working to make change in these sectors.

Student Learning Outcome:

Students will examine contemporary social justice issues and campaigns in order to formulate arguments to support the need for reform.

COMPLAN 009 COMMERCIAL REAL ESTATE DEVELOPMENT (3) CSU

Lecture: 3 hour(s)

This course will teach students how to develop commercial real estate projects with a specific focus on retail and inner city development. The introductory course builds skills and competencies in land development, developing financing, marketing and leasing of small and mid-size commercial projects. Through case studies, simulations and project-based learning, students recognize development strategies and tools used by public, private and non-profit organizations.

Student Learning Outcome:

Students will assess the commercial real estate needs of a low-income community and develop a commercial development strategy designed to stimulate the local economy and physically revitalize a designed targeted community.

COMPLAN 010 COMPREHENSIVE COMMUNITY VIOLENCE PREVENTION (3) CSU

Lecture: 3 hour(s)

The course provides students an overview of the larger issues of violence prevention and its impact on community development. The course prepares students for work in the field of community violence prevention.

Student Learning Outcome:

Students will create a community violence prevention plan to address the root causes of community violence through a community development lens.

COMPLAN 011 PROFESSIONAL DEVELOPMENT SKILLS/ISSUES IN COMMUNITY DEV (3) CSU

Lecture: 3 hour(s)

Students will learn to identify and understand a variety of personal, professional development strategies, writing and communication skills and industry networks/language used by professionals in community development corporations, community-organizing networks and community-based non-profit organizations.

Student Learning Outcome:

Students will develop a professional development plan that supports their employment in the Community and Economic Development field.

COMPLAN 012 FUNDRAISING BASICS FOR NONPROFIT ORGANIZATIONS (1) CSU

Lecture: 1 hour

This course provides students with a basic understanding of fundraising and grant development concepts, strategies and tools applicable to non-profit organizations.

Student Learning Outcome:

Students will formulate a fund development plan that is tailored to the needs of an organization.

COMPLAN 015 INTRODUCTION TO THE COMMUNITY DEVELOPMENT INDUSTRY & CAREERS (1) CSU

Lecture: 1 hour

Learn about the field of community development by exploring historical and current trends. Explore the range and scope of organizations working in the field, leadership, issues, community served and approaches to community based solutions.

Student Learning Outcome:

Students will describe a career pathway in the community development through a career development plan.

COMPLAN 017 LEADERSHIP DEVELOPMENT AND SKILL BUILDING (3)

Lecture: 3 hour(s)

In this course students will learn to define leadership models in which all members of society play pivotal roles in change. Students will demonstrate multicultural appreciation and have the confidence to see themselves as community change agents.

Student Learning Outcome:

Students will be able to develop a personal leadership development plan for their future.

COMPLAN 022 SOCIAL MEDIA, POWER AND CULTURE FOR COMMUNITY ORGANIZING AND CIVIC ENGAGEMENT (2) CSU

Lecture: 2 hour(s)

This course will cover effective media strategies for community organizing campaigns, effective messaging that reflects the values of the community and an introduction to using media tools such as social media, self-generated radio and press events.

Student Learning Outcome:

Students will compose a communications strategy plan that utilizes digital and social media in a political or community organizing campaign.

COMPLAN 030 MARKET RESEARCH TOOLS FOR THE ECONOMIC DEVELOPMENT PROCESS (3) CSU

Lecture: 3 hour(s)

This course is specifically designed for professionals in community economic development organizations that provide technical assistance to small businesses. This hands-on course will provide professionals with the tools needed to assess client needs and develop and implement effective market research and marketing plans for small businesses. This is a hybrid course, utilizing a combination of in-class and on-line/web-based instruction. The content of this course is geared towards individuals with 2-3 years of professional experience and whose organizations provide assistance to small businesses.

Student Learning Outcome:

Students will be able to develop a community engagement marketing plan for small businesses to reach the community.

COMPLAN 032 COMMUNITY BUILDING PRINCIPLES AND STRATEGIES (1) CSU

Lecture: 1 hour

This course provides students with a basic understanding of community building principles, strategies and tools for community and economic development.

Student Learning Outcome:

Students will be able to formulate a plan based on their understanding of Community Building principles, steps in the Community Building process, Interpret community needs and assets, analyze social issues via multiple methods, and apply social analysis to decision-making methods to create a community building plan.

COMPLAN 033 COMMUNITY ENGAGEMENT PRINCIPLES AND STRATEGIES (1)

Lecture: 1 hour

This course provides students with a basic understanding of community engagement principles, strategies and tools for community and economic development.

Student Learning Outcome:

Students will be able to formulate a community engagement plan.

COMPLAN 035 HEALTH LEADERSHIP AND COMMUNITY DEVELOPMENT (3) CSU

Lecture: 3 hour(s)

This course provides students with a basic understanding of the health disparities and conditions affecting low-income, inner-city communities and the leadership skills required to improve them.

Student Learning Outcome:

Students will be able to a Formulate plan to improve public health systems that affect health determinants of low income inner city neighborhoods.

COMPLAN 036 INTRODUCTION TO COMMUNITY BASED RESEARCH AND ORGANIZING METHODS (3) CSU

Lecture: 3 hour(s)

This course provides students with a basic understanding of community-based research principles, tools and strategies. The course is taught in a training/workshop format where students will work in small groups to apply classroom lessons to investigate local community issues, such as transportation, environment and economic health. Topics covered include participatory action research theory and methodology, history of Los Angeles, mobility issues in urban settings, sources and impacts of pollution and income and wealth inequality.

Student Learning Outcome:

To conduct a participatory action research survey targeting a specific community.

COMPLAN 038 DEVELOPING SOCIAL NETWORKS FOR COMMUNITY BUILDING (1) CSU

Lecture: 1 hour

This course examines digital and online efforts of community organizations to build community leadership and civic engagement. Students will focus on how technological applications may provide more effective and efficient pathways for community organizations to communicate with their stakeholders and reach their strategic goals and manage communications' efforts in a digital world.

Student Learning Outcome:

Students will formulate a digital relationship building plan.

COMPLAN 040 NON-PROFIT PROGRAM DESIGN AND DEVELOPMENT (2)

Lecture: 2 hour(s)

This course guides students to design and develop non-profit programs that are highly integrated into a non-profit service organization's mission, vision and values. Topics include identifying conditions, research and problem analysis, program goal development, outcome creation, implementation strategies and evaluation of impact.

Student Learning Outcome:

Students will be able to create a non-profit logic model to serve community serving programs targeting problems facing low-income residents.

COMPLAN 042 SUSTAINING SOCIAL JUSTICE CAMPAIGN VICTORIES AND ORGANIZATION (1)

Lecture: 1 hour

This course will introduce students to current models for sustaining a social justice organization including evaluating the non-profit, social entrepreneurship and self-help models to support community revitalization and empowerment.

Student Learning Outcome:

* Identify and compare three different types of social movement organizational models * Compare and contrast the opportunities, challenges and successes of these models. * Identify funding and sustainability opportunities for various organizations fitting the various models.

COMPLAN 065 COMMUNITY-BASED HEALTH POLICY ADVOCACY (3)

Lecture: 3 hour(s)

This course will provide a foundational basis for skills to engage the community in grassroots health promotion and policy advocacy.

Student Learning Outcome:

Students will formulate a Policy Analysis Memo that addresses a social determinant of health.

COMPLAN 100 HISTORY OF COMMUNITY DEVELOPMENT IN LOS ANGELES (2) CSU

Lecture: 2 hour(s)

History of Community Development in Los Angeles explores the historic development of Los Angeles from the early settlements to the rise of industrialization, neighborhood development, demographic transitions and the intersection between race, class, politics and power.

Student Learning Outcome:

Students will compose an equity solution and plan that currently affects a Los Angeles neighborhood.

COMPLAN 101 HISTORY OF SOCIAL JUSTICE MOVEMENT THEORY, IDEOLOGY AND PRACTICE IN AMERICA (2) CSU

Lecture: 2 hour(s)

The course provides students with a historical foundation of social movements based in the United States. Students will analyze the guiding principles and work of key organizations that have fought for justice along intersectional issues of race, class and gender and will apply theories to projects that seek to solve current day problems.

Student Learning Outcome:

Students will compose an equity solution that addresses a current social justice issue that incorporates equity building concepts.

COMPLAN 102 CULTIVATING CONSCIOUSNESS: REFLECTION OF THE SELF IN COMMUNITY AS AN ORGANIZER (1)

Lecture: 1 hour

Community organizers will explore issues of race, class and privilege and its impact on the self and communities. Students will learn skills and knowledge related to group dynamics, sustainability, self-analysis and macro and micro issues related to the role of community organizers.

Student Learning Outcome:

Students will identify an indicator of racism and create a policy recommendation for addressing inequities in communities of color.

COMPLAN 105 INTERNATIONAL MODELS OF COMMUNITY ORGANIZING (1)

Lecture: 1 hour

Students will learn about international models of community organizing and the connection between local and international issues.

Student Learning Outcome:

* Understand the impact of globalization and neoliberalism on local and national systems and economies. * Illustrate the contribution of organizing efforts and the United Nations in rebuilding communities all over the world. * Distinguish between strategies, tools and systems in international organizing efforts.

COMPLAN 106 ELECTIONS, COMMUNITY, POWER AND SYSTEMS REFORM IN COMMUNITY DEVELOPMENT (1)

Lecture: 1 hour

Students will learn about local and national efforts for elections and systems reform for social change including evaluating successful electoral campaigns

Student Learning Outcome:

* Compare strengths and challenges in utilizing electoral and system reform campaigns especially in the state of California. * Analyze history of electoral campaigns and their impact on positive social change. * Identify key components of developing a successful movement-building electoral campaign.

COMPLAN 200 STRATEGIC PLANNING & MANAGEMENT TRAINING FOR ECONOMIC DEVELOPMENT (3)

Lecture: 3 hour(s)

This course is focused on the fundamentals of strategic and business planning for organizational staff and will provide tools and opportunities to practice for the organizations.

Student Learning Outcome:

Students will formulate an organizational strategic plan to address critical conditions in a low income community.

COMPLAN 201 FINANCIAL MANAGEMENT ASSISTANCE FOR SMALL BUSINESS FOR ECONOMIC DEVELOPMENT PROFESSIONAL (3)

Lecture: 3 hour(s)

This course is focused on the fundamentals of financial management for nonprofit staff and will provide tools and opportunities to practice for the organizations.

Student Learning Outcome:

Students will formulate a financial management plan that will sustain a nonprofit organization.

COMPLAN 202 EFFECTIVE HUMAN RESOURCES MANAGEMENT FOR SMALL BUSINESS ASSISTANCE (3)

Lecture: 3 hour(s)

This course examines the evolving human resources function within today's nonprofit organizations.

Student Learning Outcome:

Students will formulate a human resources management plan.

COMPLAN 203 MARKETING AND COMMUNICATIONS PLANNING FOR BUSINESS DEVELOPMENT (3)

Lecture: 3 hour(s)

Fundamentals of communications and marketing planning for nonprofit organizational staff. Course will provide tools and opportunities to practice.

Student Learning Outcome:

Students will formulate a one year PR plan for a nonprofit organization.

COMPUTER APPLICATIONS OFFICE TECHNOLOGIES

CAOT 001 COMPUTER KEYBOARDING AND DOCUMENT APPLICATIONS I (3) CSU

Lecture: 2 hour(s); Lab: 3 hour(s)

Fundamentals of keyboarding and letter writing.

Student Learning Outcome:

Students will be able to touch type the keyboard with speed and accuracy at 25-40 words per minute. Students will create simple reports and block style letters.

CAOT 002 COMPUTER KEYBOARDING AND DOCUMENT APPLICATIONS II (3) CSU

Lecture: 2 hour(s); Lab: 3 hour(s)

Increase computer keyboarding skills and improve business and legal document development in MS Word.

Student Learning Outcome:

Students will create a formal report using advanced word-processing commands and features. Students are expected to type a minimum of 50 words-per-minute (wpm).

CAOT 007 MACHINE TRANSCRIPTION (3)

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisory: CAOT 1 & 31

This course is designed to provide instruction in the use of modern language of dictating and transcribing professional documents using current transcribing software. Emphasis is placed on using effective dictation and transcription techniques when composing original documents, employing acceptable formats, and transcribing business correspondence and reports in final form. Students will review English fundamentals, strengthen keyboarding and proofreading skills.

Student Learning Outcome:

Students will transcribe "Block Letter" and Modified Block letters with mixed punctuations, demonstrating correct transcription techniques. Students will transcribe financial, bank, and insurance forms through transcribing and dictation. Students will transcribe a two-page business letter and address an envelope from a taped dictation.

CAOT 020 MEDICAL OFFICE PROCEDURES (5)

Lecture: 5 hour(s)

Student will become proficient in keying medical correspondence, case histories, insurance forms, and reports. Telephone techniques, medical record keeping, filing and internet activities are taught. Students will learn to perform the duties of the administrative medical assistant under realistic conditions requiring them to organize work and set priorities.

Student Learning Outcome:

When provided with a medical office scenario, the student will assess the situation and describe what actions in writing they would take to serve the client(s) and evaluate the effectiveness of the services provided.

CAOT 030 OFFICE PROCEDURES (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisory: CAOT 1

This course provides skills needed to meet the challenges of the constantly changing workforce. It emphasizes the importance of developing an effective professional image, appropriate self-management, and the importance of working successfully in teams. It stresses development of essential administrative professional skills including written and verbal communications, global communications, paper and electronic records management, personal finance and investment strategies, event planning, travel arrangements, workplace mail and copying, and job search and advancement. Emphasis is also placed on the development of soft skills such as etiquette, self-management, teamwork, ethics, leadership, and customer service.

Student Learning Outcome:

Students will apply knowledge in office procedures and techniques for entry level positions in business offices. Students will write an indirect letter, assuming the role of an administrative assistant in a mock business.

CAOT 031 BUSINESS ENGLISH (3) CSU

Lecture: 3 hour(s)

This course provides language fundamentals needed to communicate effectively in today's workplace. These fundamentals include grammar, usage, punctuation, capitalization, number style, proofreading, and spelling. It develops business vocabulary as well as English skills necessary for business industry. Because business people must express their ideas clearly and correctly, language fundamentals are critical.

Student Learning Outcome:

Students will construct a well-formatted business letter utilizing standard English grammar and punctuation. Student will create a procedures manual as a class project.

CAOT 033 RECORDS MANAGEMENT AND FILING (2)

Lecture: 1 hour; Lab: 2 hour(s)

This course will provide an overview of the field of records management; alphabetic, subject, numeric, and geographic storage and retrieval systems; records management technology; and records control. Class includes records management theory using Microsoft Access.

Student Learning Outcome:

Complete a Records Management Simulation showing competence in alphabetic, subject consecutive numeric, terminal-digit numeric, and geographic filing systems.

CAOT 034 BUSINESS TERMINOLOGY (2)

Lecture: 2 hour(s)
Advisory: English 68

The course is designed to develop spelling ability and vocabulary enrichment with application for business use. It develops an understanding of common business and technology terms, as well as emphasizing vocabulary development and expansion.

Student Learning Outcome:

Students will differentiate between similar words that sound alike but are spelled differently and have different meanings. Students will compose and edit text that correctly incorporate common business and technology terms as well as new general vocabulary. Students will understand common prefixes, suffixes, and roots, which will assist students in decipher challenging words that are included in business courses.

CAOT 035 CONCEPTS IN INFORMATION SYSTEMS (3) CSU

Lecture: 3 hour(s)

This course provides an introduction to the basic concepts of microcomputers and information systems with the notion of understanding computer components. Understanding computer components includes application software, system software, input/output devices, communications, files and databases.

Student Learning Outcome:

Students will understand how to communicate by using web resources. Students will understand how to operate system and application software.

CAOT 044 MEDICAL TERMINOLOGY (3) CSU

Lecture: 3 hour(s)

Students develop an understanding of medical terminology through a study of word roots, prefixes, and suffixes and body systems. Students' emphasis is also given to spelling, pronunciation, and definitions.

Student Learning Outcome:

1. The student will be able to, using the proper terminology, identify and summarize the body systems overview structures, related combining forms, and functions most important to that system.

CAOT 046 MEDICAL TRANSCRIPTION (3)

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisory: CAOT 2, 31, & 44

Students will transcribe medical office and hospital dictation using transcribing software. Students will develops appropriate formats for transcribing medical reports; and specialized rules of grammar and punctuation peculiar to dictated medical reports. Students will be welled versed in correct transcription procedures and in transcribing medical materials. Production is the beginning of recorded material stressing terminology from medical reports, diagnoses, and case histories. Correct spelling of medical terms are critical in learning this course.

Student Learning Outcome:

Students will recognize medical Latin root terms and phrases. Students will transcribe medical reports.

CAOT 082 MICROCOMPUTER SOFTWARE SURVEY IN THE OFFICE (3) CSU

Lecture: 2 hour(s); Lab: 3 hour(s)

This course is an introduction to office information systems and computer literacy by incorporating group discussions, research, and hands-on-experience in a variety of Windows applications. The software used in this course includes word processing, spreadsheets, databases, communications, graphics and operating systems, scheduling, and the Internet.

Student Learning Outcome:

Students will be able to create a resume with associated cover letter, envelope, and a web page with frames and themes. Students will be able to design and modify the structure of, create and add records to an Access database, and then to use it to generate reports. Students will be able to integrate Word, PowerPoint, Excel and Access into a real business model.

CAOT 084 MICROCOMPUTER OFFICE APPLICATIONS: WORD PROCESSING (3) CSU

Lecture: 2 hour(s); Lab: 3 hour(s)
Advisory: CAOT 1

This course provides instructions on Microsoft Word applications using basic and advanced commands to create, format, edit, save, and print documents including letters, tables, reports, and merge documents. The application also utilizes publishing features that includes creating newsletters, brochures, fliers, and resumes on the web and through cloud computing.

Student Learning Outcome:

Students will demonstrate knowledge of word-processing terminology and the comprehensive capabilities of Microsoft Word. Students will integrate word and excel by linking a excel worksheet to a word document using charts and edit link objects.

CAOT 085 MICROCOMPUTER OFFICE APPLICATIONS: SPREADSHEET (3) CSU

Lecture: 1 hour; Lab: 4 hour(s)

This course prepares students to apply practical business analysis concepts and techniques using the Microsoft Excel spreadsheet. Students learn to create professional and powerful worksheets with emphasis of What-if-analysis and business functions; complex problem-solving; auditing, scenario manager; data validation; importing external data; Web queries; creating templates; consolidating workbooks and/or worksheets; goal seeking; and integration features. The business applications include those used by office employees, accountants, management, and marketing personnel.

Student Learning Outcome:

Students will be able to calculate formulas on large worksheets.

CAOT 086 MICROCOMPUTER OFFICE APPLICATIONS: DATABASE (3) CSU

Lecture: 2 hour(s); Lab: 3 hour(s)

This course provides instructions on office database applications using a relational database program, such as, Microsoft Access. Covers records design, file creation and maintenance, and data manipulation and presentation. Emphasizes office applications such as records for personnel, inventory, and sales. Integrates a word processing program to produce automated mailings.

Student Learning Outcome:

Students will create working databases using Access 2007 professional use. Students will produce queries by setting criteria in professional databases. Student acquire the ability to maintain databases for professional use.

CAOT 088 MICROCOMPUTER OFFICE APPLICATIONS: DESKTOP PUBLISHING (3) CSU

Lecture: 2 hour(s); Lab: 3 hour(s)

This course provides hands-on training using a personal computer, a printer and desktop publishing software. Includes producing camera ready, near typeset quality publications, newsletters, tri-fold brochures, business information sets, merging publication data, creating an interactive websites and linking and embedding objects.

Student Learning Outcome:

Students will produce a variety of professional looking business publications, such as, newsletters, flyers, brochures, business cards, letterhead, event programs, and a wide range of other business documents.

CAOT 093 LEGAL DOCUMENT PRODUCTION (2)

Lecture: 2 hour(s)
Advisory: CAOT 84

This course prepares students to produce legal documents within the law firm setting, including briefs, memos, pleadings and all other legal documents. Recommended for paralegal students and required for legal administrative assistants.

Student Learning Outcome:

Students will have the ability to work with a variety of legal templates to key documents, such as, comprehensive legal documents for the courts, wills and trusts and to key many different contracts.

CAOT 098 MICROCOMPUTER OFFICE APPLICATIONS: DISCOVERING COMPUTERS: DIGITAL LITERACY (3)

Lecture: 2 hour(s); Lab: 3 hour(s)

This course is designed to prepare students to operate a computer in the Windows environment. This course covers elements of Windows including: Windows operation, disk and file management, modification and customization of the Windows environment, and application of Windows accessories. This class requires both on campus and online work.

Student Learning Outcome:

Students will be able to demonstrate their digital literacy in reference to smart technology, network systems, security, ethics and computer privacy.

CAOT 101 HANDS-ON INTERNET (1)

Lecture: 0.5 hour(s); Lab: 1.5 hour(s)

This course provides hands-on introduction to the World Wide Web and its components with emphasis on using traditional Internet services, downloading programs, sharing files, using e-mail, extending browser capabilities and increasing Web security.

Student Learning Outcome:

Students will understand how the Internet is used in a technological environment. Student will understand the linear nature of the Back and Forward list.

COMPUTER INFORMATION SYSTEMS

CO INFO 011 NETWORK SECURITY FUNDAMENTALS (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)

This course provides instruction and hands-on training in the following computer information systems concepts: Basic security principles, methods of establishing security baselines, and the most recent attack and defense techniques and technologies. It will also help prepare for CompTIA's examination and professional security certification.

Student Learning Outcome:

Student Learning Outcomes (SLO) Students will be able to explain basic security measures for networks, servers and workstations. Students will also be able to describe information security in more details and able to understand techniques to protect workstations, servers and networks from malware and various attacks. Students are expected to set appropriate securities for network information systems. Students are expected to secure data and understand data privacy and data integrity. Students are expected to identify challenges for information security management. Students are expected to comprehend various cryptographic standards in the information security industry

CO INFO 012 WEB SECURITY (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisory: CO INFO 701

This course is designed to educate users in the technologies, terms, and processes related to Internet Security. Methods for testing security and implementing proper defense measures are covered for both Linux and Windows Operating Systems.

Student Learning Outcome:

Understand and describe Web security concepts including, software and network vulnerabilities, security risks, various types of attacks and counter measurements against them, encryption algorithms, intrusion detection, and benefits and legal concerns of security testing.

CO INFO 035 MULTIMEDIA PRESENTATIONS FOR THE INTERNET I (3) CSU

Lecture: 1.5 hour(s); Lab: 3 hour(s)

This course examines the power of using the Internet as a presentation tool and includes Internet History, simple document conversion for the World Wide Web, use of FrontPage, PowerPoint and Producer. Student will prepare presentations for the Internet by assembling ready-made digital audio, video, and images.

Student Learning Outcome:

Students in this course will demonstrate the ability to use multimedia elements to organize, design, and develop and procedure a multimedia project for the Internet. Organizing, designing, and producing multimedia projects.

CO INFO 040 BEGINNING LEVEL PROGRAMMING/COMPUTER GAMES (3)

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisory: Computer Information Systems 701

This course will provide students with a basic understanding of how a game 'idea' is transformed to a marketable product, while educating them on the roles and duties of a game development team and the practices exercised within the game development industry. This course is an in-depth study of level plans for computer video games.

Student Learning Outcome:

Students will examine and critically discuss the various levels of computer game programming. Students will use critical thinking skills to gather, identify, analyze, synthesize information, and evaluate problems and solutions. In the laboratory students will create computer game programs and debug any related compiler errors.

CO INFO 042 VIDEO GAME PROGRAMMING I (3)

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisory: CO INFO 40 or 700

This hands-on course teaches the technical skills behind 3D game programming, using the latest version of Torque from GarageGames, and provides the very best tools available to the game maker. Students will gain practical experience needed to create their own games. As students create a first person shooter, the class will cover the techniques behind the programming, textures, and models that go into successful game creation. Students will cover the Torque Engine and will learn how to integrate sound and music into their games.

Student Learning Outcome:

Student will design algorithm, create and test 3D game applications using gaming software such as GarageGames or BlitzMax.

CO INFO 700 COMPUTER CONCEPTS (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisory: Mathematics 105 and English 21;

This course provides an overview of Information Technology concepts that explore the aspects of computer hardware and software, operating systems and networking, programming, and the Internet. Class lectures cover prevailing industry terminologies and the latest breakthroughs in the field of Information Technology that span the convergent branches of hardware, software, and the Internet – as evident in today's social media wherein online human interaction is mediated by advanced hardware/software technologies, and the so-called 'Internet of Things' where all digital devices known to humankind are connected – and how they affect modern society. This course is designed for students with minimal or no previous computer background and those who need to refresh their knowledge with the latest terms and trends in Information Technology.

Student Learning Outcome:

Demonstrate, discuss and illustrate knowledge of essential textbook Information Technology concepts from the hardware/software components and programming and the system development cycle to the Internet, E-mail, and social media.

CO INFO 701 INTRODUCTION TO COMPUTERS AND THEIR USES (3) UC:CSU

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisory: English 21; Mathematics 105;

The students will be introduced to computer applications using Microsoft Office. Word, Excel, Access are covered. Also, the students will learn to integrate different applications, and understand the fundamentals of the Windows operating system.

Student Learning Outcome:

Use the most common business systems - text processing, spreadsheets, database systems - and the basic functionalists of the operating system.

CO INFO 709 VISUAL BASIC PROGRAMMING (3) UC:CSU

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisory: Computer Information Systems 700 or 701

The primary topic of this class is the structure and methods of the Visual Basic programming system. This system is widely used to create computer applications that include interaction with a user, and is called object-oriented programming.

Student Learning Outcome:

Student will explain and use the syntax and grammar of the Visual Basic programming system to create programs that are representative of commonly used business and engineering procedures.

CO INFO 733 MICROCOMPUTER DATABASE PROGRAMMING (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisory: CO INFO 701

A complete presentation of database management using Access, including database design, queries, macros, toolbars, VBA and SQL. Also includes advanced work in Excel, use of the Internet in these products.

Student Learning Outcome:

Create and customize advanced database objects to improve the accuracy for analyzing data, and simplify using data and data analysis for the end-user.

CO INFO 734 OPERATING SYSTEMS (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)

This course provides students a solid foundation in the basics of the open-source Linux operating system that currently powers a majority of network servers the world over due to its robust features from security to efficiency, reliability, and its modest cost-of-ownership. Unix/Linux powers a greater segment of the Internet than Microsoft. Topics included are An Overview of the Linux Architecture, The Kernel and Shell, File System, Users and Groups Management, Permission and Ownership Management, Services and Processes Management. Students gain system-level experience through problem-solving hands-on lab exercises at the command line and in the graphical user interface.

Student Learning Outcome:

Identify and describe the essential components of the Linux system from its architecture to its constituent administrative level functions and interfaces. Apply and demonstrate fundamental concepts in graphical user and command line interface operation, and associated concepts in system and network security administration in a systematic manner. Install and deploy a Linux system. Apply and demonstrate concepts in system and network security administration.

CO INFO 739 PROGRAMMING IN C++ (3) UC:CSU

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisory: Computer Information Systems 701;

This class provides an introduction to the use of the C++ programming system. It emphasizes the syntax and grammar of its coding language. The method of instruction is the use of the system to implement computer application projects using the traditional programming structures of sequence, selection, and loops, use of functions, arrays and strings and how different data types work.

Student Learning Outcome:

Use the syntax and grammar of the C++ programming language to create programs that are representative of commonly used business and engineering procedures.

CO INFO 741 PROGRAMMING IN C# (3) UC:CSU

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisory: Computer Information Systems 701

This class provides an overview of computer programming in C# (C Sharp). It emphasizes the structure and methods of object oriented programming. This consists of form design, the properties lists, and the syntax and grammar of the code language. The class also stresses problem solving methods, development of algorithms, the programming structures of sequence, selection, and loops, use of functions, arrays and strings and how different data types work.

Student Learning Outcome:

Student will design and create applications, and solve programming problems using object-oriented C# programming language's concepts and tools.

CO INFO 742 WEB DEVELOPMENT USING PHP-MYSQL (3)

Lecture: 3 hour(s)
Advisory: Computer Information Systems 701;

This class provides an intermediate-level course in E-commerce using the PHP scripting language and the MySQL database platform to develop robust and secure dynamic websites with special emphasis on object-oriented programming and the application of real-world website features such as Secure Socket Layer (SSL), shopping carts, and payment systems.

Student Learning Outcome:

Student will learn the fundamentals of website development and E-commerce using PHP-MySQL.

CO INFO 743 OBJECT-ORIENTED PROGRAMMING IN C++ (3) UC:CSU

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisory: CO INFO 739

This course develops an understanding of Object-Oriented programming. It includes Object-oriented analysis and design. Major topics include classes, constructor, destructor, accessor and mutator functions, overloaded functions and operators, inheritance, and polymorphism.

Student Learning Outcome:

Student will design and create applications, and solve programming problems using object-oriented C++ programming language's concepts and tools.

CO INFO 750 DREAMWEAVER CONCEPTS AND TECHNIQUES (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisory: CO INFO 757

The course covers concepts and techniques of the Dreamweaver system. It consists of projects that provide experience in the methods used to produce and modify documents for the World Wide Web.

Student Learning Outcome:

Utilize Web development concepts, and use Dreamweaver to create and enhance websites and webpages.

CO INFO 757 XHTML PROGRAMMING AND APPLICATIONS (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisory: CO INFO 700 or 701

The course covers the fundamental operations of the eXtensible HyperText Markup Language (XHTML) system. It consists of projects that provide experience in the methods used to produce and modify documents for the World Wide Web.

Student Learning Outcome:

Student will design and evaluate Websites, and include the most recent multimedia elements, using XHTML markup language and its latest elements along with CSS.

CO INFO 762 WEB SCRIPTING (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisory: CO INFO 757

This class provides an introduction to the use of the Java Script programming system. It emphasizes the syntax and grammar of its coding language and it is embedded into the Web page structure. The method of instruction is projects which include the design and implementation of calculations and related actions into a Web page. .

Student Learning Outcome:

Use the syntax of JavaScript programming system to create client-side scripts to interact with the user, control the browser, and alter the displayed document content.

CO INFO 770 LOCAL AREA NETWORK ADMINISTRATION (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)

This course will prepare students for a challenging career in Information Technology with a focus in Local Area Network Administration. Students will develop skills to administer and support data communication hardware such as, file servers, printers and other related peripheral input/output devices, and provide technical direction to lower level network technicians. Server-based network, setup file and print resources, network infrastructure, monitor and troubleshoot services running over the network.

Student Learning Outcome:

After the completion of this course students will be able to: 1) Develop a network proposal that will accommodate the needs of a small business. 2) Create a fully functional network using network simulation software.

CO INFO 771 LOCAL AREA NETWORK TECHNICAL SUPPORT (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisory: Computer Information Systems 701;

This course will provide students with a comprehensive understanding of Local Area Network (LAN) topologies; and with the skills necessary to install, configure, customize, and troubleshoot Ethernet and Wireless computer networks. This course will prepare students for the newest 2010 CompTIA Network+ N10-004 examination.

Student Learning Outcome:

Students will demonstrate technical skills that meet industry and/or employment standards. Students will use critical thinking skills to gather, identify, analyze, synthesize information, and evaluate problems and solutions.

CO INFO 787 NETWORK ESSENTIALS (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)
Prerequisite: Computer Information Systems 701;

The purpose of this course is to provide a baseline level of knowledge for success in industry and preparation for networking certifications. Students are exposed to new industry topics and get hands on experience networking the lab and configuring the network. Local area and Wide area networks are covered.

Student Learning Outcome:

Student Learning Outcomes (SLO) Students will be able to explain LAN and WAN networking concept and terminology. Students will be able to explain internetwork for networks, servers and workstations. Students will also be able to describe OSI model in details and able to understand interoperability of level of OSI model. Students will be able to explain techniques to protect workstations, servers and networks.

CO INFO 790 PROGRAMMING IN JAVA (3) UC:CSU

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisory: Computer Information Systems 709 or Computer Information Systems 739;

This course covers the fundamental operations of the Java programming system. It consists of projects that provide experience in the methods used to create Java applications and applet that will run in Internet web pages. Also to create GUI user interface screens.

Student Learning Outcome:

Students are expected to be able create Java Application programs

COOPERATIVE EDUCATION

COOP ED 195 WORK EXPERIENCE - GENERAL I (1) B RPT 3 CSU

Lecture: 1 hour

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Students must be employed or volunteering/interning in order to participate in program. During the fall and spring semesters, students shall be enrolled in at least one additional course in a U.S. regionally accredited institution.

Student Learning Outcome:

Develop learning objectives related to educational/occupational goals to be accomplished on the job.

COOP ED 295 WORK EXPERIENCE - GENERAL I (2) B RPT 2 CSU

Lecture: 2 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Students must be employed or volunteering/interning in order to participate in program. During the fall and spring semesters, students shall be enrolled in at least one additional course in a U.S. regionally accredited institution.

Student Learning Outcome:

Develop learning objectives related to educational/occupational goals to be accomplished on the job.

COOP ED 395 WORK EXPERIENCE - GENERAL I (3) CSU RPT 1

Lecture: 3 hour(s)

General Cooperative Education is a work experience program involving the employer, the student-employee, and the college to insure that the student receives on the job training and unit credit for work experience. Work experience requires that the student be employed in a paid or unpaid position and need not be related to the students educational goals.

Student Learning Outcome:

Develop learning objectives related to educational/occupational goals to be accomplished on the job.

COSMETOLOGY

CSMTLGY 035 SKIN THERAPY I (6) NDA

Lecture: 3 hour(s); Lab: 9 hour(s)

Students will be introduced to disinfection and sanitation procedures, basic facial manipulations, proper cleansing, toning and moisturizing applications, masks and pack techniques and operational procedures for using facial machines.

Student Learning Outcome:

The student will be able to demonstrate sanitation and disinfection, client draping, skin analysis, cleansing, massage and plain facial techniques.

CSMTLGY 036 SKIN THERAPY II (6) NDA

Lecture: 3 hour(s); Lab: 9 hour(s)
Prerequisite: Cosmetology 35

Students will be introduced to waxing services, makeup applications, desincrustation, iontophoresis, light therapy and high frequency treatments. Skin analysis equipment, facial and body machines, airbrushing machines and hair removal techniques will be employed.

Student Learning Outcome:

The student will be able to demonstrate sanitation procedures while performing basic facial manipulations, proper cleanings, toning and moisturizing applications, masks and pack techniques and operational procedures for utilizing the facial machine.

CSMTLGY 037 SKIN THERAPY III (6) NDA

Lecture: 3 hour(s); Lab: 9 hour(s)
Prerequisite: Cosmetology 36;

Students will be introduced to hand and foot treatments, body scrubs, wraps, reflexology and massage treatments. Aromatherapy treatments will be employed.

Student Learning Outcome:

Students will perform hand and foot treatments utilizing reflexology. Students will demonstrate body scrubs, wraps, massage and aromatherapy treatments.

CSMTLGY 038 SKIN THERAPY IV (6) NDA

Lecture: 3 hour(s); Lab: 9 hour(s)
Prerequisite: Cosmetology 37;

Students will be introduced to clinic floor practicum, advanced facial and makeup applications, arching and waxing services and body treatments. Mock state board procedures for licensure will be employed.

Student Learning Outcome:

Students will be able to perform all skin therapy services such as facials, advanced makeup application, arching, waxing and body treatments.

CSMTLGY 111 FRESHMAN COSMETOLOGY (6)

Lecture: 3 hour(s); Lab: 9 hour(s)

The course covers basic manipulative skills and proper application of shampooing, scalp treatments, finger waving, curl construction, hair design, haircutting, and manicuring. Basic lecture and theory include topics on bacteriology, trichology, decontamination.

Student Learning Outcome:

Student will perform basic hair design concepts. Students will demonstrate a plain manicure. Students will perform hair sculpting procedures and identify and practice industry safety and sanitation standards.

CSMTLGY 112 JUNIOR SALON I (6)

Lecture: 3 hour(s); Lab: 9 hour(s)
Prerequisite: Cosmetology 111;

The course covers basic applications of skin care and facial massage manipulations, permanent waving, haircutting techniques, and all phases of thermal texture hair designing. Theories related to all areas mentioned above are also discussed.

Student Learning Outcome:

Students demonstrate the proper procedures for cleansing, toning and moisturizing the skin, massage manipulations, eyebrow arching and basic makeup application. Students will demonstrate procedures for sectioning and wrapping a permanent wave.

CSMTLGY 121 JUNIOR SALON II (6)

Lecture: 3 hour(s); Lab: 9 hour(s)
Prerequisite: Cosmetology 112;

The students are exposed to intermediate instruction in permanent waving, chemical straightening, thermal straightening and curling, skin and hair care, with instruction on the use of facials, hair cutting and nail care. Theories that are related to all areas mentioned above will be discussed.

Student Learning Outcome:

Student will demonstrate the proper procedures for waxing facial areas, applying masks, packs, scrubs and dermal lights for different skin types. Students will perform thermal texture procedures utilizing the pressing comb, oven, Marcel and electrical irons.

CSMTLGY 122 JUNIOR SALON III (6)

Lecture: 3 hour(s); Lab: 9 hour(s)
Prerequisite: Cosmetology 121;

The students are instructed in advanced permanent waving, soft permanent wave, chemical straightening, thermal straightening and curling, hair cutting, and electricity. Theories related to the above mentioned subjects will be discussed.

Student Learning Outcome:

Students will perform permanent waving, soft permanent waving and chemical straightening techniques as well as advanced cold waving. Students will demonstrate facial techniques using chemical compounds and electrical modalities.

CSMTLGY 131 TINTING I (6)

Lecture: 3 hour(s); Lab: 9 hour(s)
Prerequisite: Cosmetology 112;

The course covers basic, intermediate and advanced hair coloring, bleaching, toning, highlighting, frosting and color correction techniques. A variety of artificial nail procedures will be demonstrated. Theories to the above mentioned subjects will be discussed.

Student Learning Outcome:

The students will apply the law of color in identifying and demonstrating the applications of basic and intermediate hair coloring, bleaching, and toning techniques.

CSMTLGY 132 TINTING II (6)

Lecture: 3 hour(s); Lab: 9 hour(s)
Prerequisite: Cosmetology 131;

The course covers all aspects of hair coloring, bleaching, toning, 'special effect' highlighting, foiling, cap frosting and color correction. Additional subjects are: haircutting, thermal and wet hair styling, and the study and applications of artificial nail products. Theories related to the above mentioned subjects will be discussed.

Student Learning Outcome:

Students will analyze, discuss, and demonstrate the procedures for a variety of hair coloring/bleaching applications. Students will demonstrate a variety of artificial nail applications.

CSMTLGY 141 SENIOR SALON I (6)

Lecture: 3 hour(s); Lab: 9 hour(s)
Prerequisite: Cosmetology 122 & 132

The course reviews all areas of cosmetology, rules, regulations and State Board requirements for licensing. Students will perform client services, conduct consultations, record services, track client appointments and tickets. Theories that are related to all areas mentioned above will be discussed.

Student Learning Outcome:

Students will complete all final preparations and procedures for customer service and licensure of the Cosmetology State Board Examination in haircutting, hair designing, chemical services, hair coloring and skin care.

CSMTLGY 142 SENIOR SALON II (6)

Lecture: 3 hour(s); Lab: 9 hour(s)
Prerequisite: Cosmetology 141;

The student will be introduced to clinic floor practicum and advanced client services. Mock State Board procedures for licensure will be employed. Business practices include: client services, effective communication, job search skills, networking, strategies for building a clientele, selling techniques, starting and operating a business.

Student Learning Outcome:

Student will model industry standard business practices including customer rapport, service planning, professional communication, client retention, referrals, marketing and cooperation with co-workers. Student will review individual competency requirements, both skill and theory, and by passing a mock examination, student will demonstrate readiness to pass the state certification exam.

CSMTLGY 210 INTRODUCTION TO HAIR COLORING (3)

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)
Prerequisite: Cosmetology 112;

Students are offered an introduction to basic hair coloring categories, applications and bleaching techniques. In addition, the course will concentrate on hair cutting, hair styling, and permanent waving procedures.

Student Learning Outcome:

Students will be able to apply temporary and semi-permanent hair coloring and perform highlighting techniques using foils.

CSMTLGY 211 INTERMEDIATE HAIR COLORING AND STYLING (3)

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)
Prerequisite: Cosmetology 112;

Students are offered an introduction to intermediate hair coloring, bleaching and toning applications and techniques. In addition, the course will concentrate on hair cutting, hair styling, and skin care procedures.

Student Learning Outcome:

Students will be able to identify and demonstrate the skills required for mixing and applying demi-permanent, permanent hair coloring and bleaching compounds.

CSMTLGY 214 ADVANCED HAIR COLORING AND STYLING (3)

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)
Prerequisite: Cosmetology 112;

Students are offered instruction in permanent hair coloring applications, color correction techniques, zonal and block highlighting effects. In addition, the course will concentrate on hair cutting, thermal hair styling, long hair designing and nail technology.

Student Learning Outcome:

Students will be able to identify and demonstrate the skills required for special effects applications of hair color and bleach, while employing color correction techniques needed for industry.

CSMTLGY 215 CONTEMPORARY STYLING TECHNIQUES (3)

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)
Prerequisite: Cosmetology 112;

Students receive instruction in advanced hair designing, hair coloring, hair sculpting, and chemical texture services.

Student Learning Outcome:

Students will be able to analyze and create contemporary hair designs utilizing wet and thermal styling techniques meeting industry standards.

COUNSELING

COUNSEL 001 INTRODUCTION TO COLLEGE (1) CSU

Lecture: 1 hour

This course is designed to provide students with skills needed to succeed in college. Emphasis is placed on college policies and procedures, campus services and resources, study skills, time management and developing a student educational plan (SEP) to meet those goals. Additional topics include: Certificate, associate degree requirements, and transfer admission requirements.

Student Learning Outcome:

Content mastery: Utilize knowledge of basic college policies & terms, types of degrees and programs, systems of higher education, useful print and electronic media resources and campus resources in various assignments Information competency and planning skills: Prepare an educational plan that shows evidence of ability to use catalog, websites and printed materials for transfer or non-transfer goals Self-management: Demonstrate student professionalism and solve typical student problems by using strategies and behaviors necessary for academic success in college

COUNSEL 002 INTERPERSONAL RELATIONSHIPS (1) 3 CSU

Lecture: 1 hour

This course enhances interpersonal skills for building effective communication for personal and professional growth. It utilizes group dynamics by enhancing self-esteem through self-awareness, acceptance, ability to listen and workplace habits. An honest appraisal of individual strengths and weaknesses is made in an effort to help remove barriers to social and academic growth to assist in action plans for personal and educational goals.

Student Learning Outcome:

1. Students will identify their personality preference and communication patterns based on the Myers Briggs Test Inventory (MBTI). 2. Students will identify social barriers (e.g. cultural, economical) to effective interpersonal relationship as well as strategies to overcome those barriers. 3. Students learn to achieve and maintain a balance in their work, school, and personal time. 4. Students will create an action plan for goals including creating or adjusting an Student Education Plan (SEP)

COUNSEL 004 CAREER PLANNING (1) CSU

Lecture: 1 hour

This is a career planning course designed to assist the student in selecting an appropriate career goal by introducing critical strategies, and information which is essential in selecting a career. The main areas covered in this course are self-assessment, problem solving, discovering your strengths and weaknesses, and understanding your personality style. Some tools which will be used to help identify the areas of concern are the Myers Briggs and the COPES. Students will also learn how to prepare a functional and chronological resume, as well as a standard cover letter.

Student Learning Outcome:

1. Student will explain specific characteristics of at least one career they are interested in. 2. Student will prepare a resume which is appropriate to their skills, education level, abilities, and work history. 3. Student will identify the appropriate courses required for his or her career goal.

COUNSEL 005 COLLEGE SURVIVAL (2) 1 CSU

Lecture: 2 hour(s)

This course provides the students with information enabling him/her to succeed or survive in college program. Emphasis will be placed on development of making informed decisions, study skills, productive time management, financial planning, an understanding of college terminology and utilization of college support services.

Student Learning Outcome:

Students will be able to identify information sources and services on campus that they need to meet their academic goals. Students will define personal attributes needed for college success through learning style, time management and goal setting Identify requirements for associate degree, certificate, and transfer option Students will be able to create a comprehensive Student Education Plan (SEP) to meet their educational goal.

COUNSEL 020 POST-SECONDARY EDUCATION: THE SCOPE OF CAREER PLANNING (3) UC:CSU

Lecture: 3 hour(s)

This course introduces students to the role of higher education in society and to their role as students. Students explore personal attributes needed for college success, critical thinking and effective study strategies, relating to others in a diverse world, the career planning and decision making process, and transfer and educational planning. This course will also provide students with an overview of campus resources and policies.

Student Learning Outcome:

Choose effective study strategies and apply these strategies to educational and workplace settings. Examine health issues such as stress, nutrition, and exercise that affect lifelong well-being. Create effective strategies for managing time and achieving lifelong goals. Define a career and describe the process and skills that are necessary for successful planning. Learn effective decision making and goal setting techniques in order to develop an educational goal.

COUNSEL 020E POST-SECONDARY EDUCATION: COLLEGE SUCCESS (1) B

Lecture: 1 hour

College Success is a course designed to increase the opportunity for success in college by assisting the student in obtaining skills necessary to reach his/her educational objectives. Topics in this course include information about college catalog, success, self-esteem, values and beliefs, study skills, communication skills, and healthy lifestyles.

Student Learning Outcome:

Choose effective study strategies and apply these strategies to educational and workplace settings. Examine health issues such as stress, nutrition, and exercise that affect lifelong well-being. Create effective strategies for managing time and achieving lifelong goals. Learn effective decision making and goal setting techniques in order to develop an educational goal.

COUNSEL 022 THE TRANSFER PROCESS (1) 1 UC:CSU

Lecture: 1 hour

This course is an introduction to the transfer process. It is designed to enable students to become active participants in planning their long-term educational and career goals and will provide students with an understanding of the process and the requirements for transferring to a four-year college or university. The course will consist of lecture, use of internet resources, guest speakers and student assignments.

Student Learning Outcome:

Student will define and compare transfer systems and requirements to four-year colleges/universities. Students will differentiate between UC, CSU, and private general education checklist. Student will explore the Internet, visit campuses, and create a transfer plan that will meet the requirements for transfer to the desired major and school/s

CULINARY ARTS

CLN ART 111 CULINARY ARTS ORIENTATION I (4) CSU

Lecture: 2 hour(s); Lab: 6 hour(s)
Prerequisite: Culinary Arts 112; Corequisite: Culinary Arts 112

With a combination of lecture and lab practice, the students are introduced to the world of commercial food production. Students are introduced to culinary theories and develop skills in knife handling, ingredient identification, small and large equipment use, weights and measures, recipe development and cooking fundamentals

Student Learning Outcome:

Students will define basic culinary terminology, identify cooking processes and techniques, and evaluate completed products Define Cooking processes and techniques Prepare food items according to demonstration standards Evaluate food items and revise finished products as needed

CLN ART 112 SANITATION AND SAFETY (2) CSU RPT 3

Lecture: 2 hour(s)
Corequisite: Culinary Arts 111

This class discusses sanitation and safety as it applies to the restaurant industry; HACCP protocol, preventing food borne outbreaks, introduction to microbiology and establishing 'flow of food systems' will be covered, federal, state and local legislation and employee training. National Restaurant Association Serve Safe Test will be given at conclusion of this class.

Student Learning Outcome:

Recognize proper hygiene and sanitation standards Apply HACCP (Hazard Analysis Critical Control Points) protocol in a professional foodservice facility Score a 75 % or higher on a National Restaurant Association food-handlers test

CLN ART 120 FRONT OF HOUSE/DINING SERVICES (4)

Lecture: 2 hour(s); Lab: 6 hour(s)

Front of house topics pertinent to restaurant & hospitality management, dining room management, service, staffing, use of POS system, money management, stewarding. Serve Safe "Alcohol" test will be administered at the conclusion of the course.

Student Learning Outcome:

Practice proper front of the house operations as it pertains to the food service industry Describe customer relations and service as performed in a culturally diverse arena Appraise effective service as it relates to the Hospitality industry Recognize, identify and assess guidelines of the safe, sale and service of Alcohol

CLN ART 121 GARDE MANGER I - BAKING (6) CSU

Lecture: 3.75 hour(s); Lab: 6.75 hour(s)
Prerequisite: Cul Art 111 & 112

Introduction to Garde Manger and Baking. Introduction to basic garde manger, salads, cold sauces and salad dressings dressing, baking principles including yeast and sweet doughs, laminated doughs, mixing methods, and decorating.

Student Learning Outcome:

1. Be able to identify cold kitchen & bakery operations & procedures. 2. Demonstrate recipes and preparation. 3. Evaluate completed assignments and adjust as needed.

CLN ART 122 GARDE MANGER II - CHARCUTEIRE (6) CSU

Lecture: 3.75 hour(s); Lab: 6.75 hour(s)
Prerequisite: Culinary Arts 111 and Culinary Arts 112;

Students will become proficient in the historical features of the grade manger stations including planning and preparation of cold soups, hors d' oeuvres, appetizers, canape, mousse, timbale, cold sauces, relishes, force-meat, galantine, terrine, pate en croute components. Preparation and usages of specialty meats, sweetbreads, and sausage will be defined; gelee, aspic, chaud froid, glazing, marinating, curing will be practiced: and buffet presentation, the display of carved fruit and vegetable garnishes and centerpieces will be studied. Projects will include international cuisine, salt dough sculpting and ice carving.

Student Learning Outcome:

Students will define and identify classic Garde Manger items, design menu items, and evaluate and access finished products

CLN ART 131 CULINARY ARTS - BREAKFAST I (6) CSU

Lecture: 3.75 hour(s); Lab: 6.75 hour(s)
Prerequisite: Culinary Arts 111; Culinary Arts 112;

Students are introduced to a la minute breakfast cookery, hot sandwiches, culinary management and supervision. Upon completion the students will be able to identify and safely use the tools and equipment used in breakfast cookery as well as egg cookery, breakfast meats, cereals, beverages, hot sandwiches, ala minute preparation, brunch items, pancakes, and waffles. Other areas covered include portion control, inventory pars, weights and measures, labor and cost control. Management, supervision, leadership, customer relations, communication, and teamwork and time management methods are introduced, discussed and practiced. Effective evaluation, discipline and delegation methods are outlined. Computerized food and labor cost and inventory controls are presented and practiced

Student Learning Outcome:

Describe a la minute cookery, management applications, and cycle menu procedures Practice and employ a la minute and cycle menu protocol in a fast paced food service facility Compare and contrast a la minute and various management styles

CLN ART 132 CULINARY ARTS - ENTREMETIER SAUCIER (6) CSU

Lecture: 3.75 hour(s); Lab: 6.75 hour(s)
Prerequisite: Culinary Arts 111; Culinary Arts 112;

Students will examine and prepare the theory and production techniques involved in the preparation of stocks, soups, sauces, starches, and vegetables in a classical and contemporary cooking approach. Students will develop a practical understanding of the role and application of sauce pairing with the center of the plate, vegetables, starches, and dessert items.

Student Learning Outcome:

Students will identify class stock, soups, sauces, vegetable and starch cookery. Prepare and assess completed product.

CLN ART 141 BUTCHERY/CENTER OF THE PLATE AND QUANTITY FOOD COOKERY (6) CSU

Lecture: 3.75 hour(s); Lab: 6.75 hour(s)
Prerequisite: Culinary Arts 111; Culinary Arts 131; Culinary Arts 132; Culinary Arts 121,
Culinary Arts 122 and Culinary Arts 112;

This course covers quantity and quality food production of meats, fish, and poultry. Students will practice center of the plate food preparation, meat identification and fabrication with an emphasis on portion control, sauce pairing and accompaniment compatibility. Students will discuss, compare and prepare various international foods.

Student Learning Outcome:

Students will define and practice advanced culinary skills and techniques.

CLN ART 142 ADVANCED RESTAURANT PRACTICES II MENU PLANNING AND PURCHASING, SUPERVISION AND TRAINING (6) CSU

Lecture: 3.75 hour(s); Lab: 6.75 hour(s)
Prerequisite: Culinary Arts 111; Culinary Arts 112;

This course covers menu planning and purchasing for the restaurant, cafeteria, banquet and specialty restaurant settings. Fundamentals of storeroom operations, including ordering, receiving, storage controls, pars and inventory controls will be identified and best practices studied. Supervision and Training of the food service worker will be discussed and practiced.

Student Learning Outcome:

Discuss food purchasing, receiving, and facility supervision Distinguish various supervisory techniques and inventory applications Evaluate systems and assess for change

CLN ART 170 CULINARY NUTRITION (2) CSU

Lecture: 2 hour(s)

This course provides a quick overview of applied culinary nutrition. Recipe and menu development including ingredient selection and cooking techniques will be discussed. Special diet (low fat, low sodium, diabetic, and caloric intake) will be discussed. Appropriate for food service professionals who would like to work as personal chefs, with sports teams, at spas and resorts, major hospital chains, entertainment or transportation industries or in health care.

Student Learning Outcome:

Student will identify micro and macro nutrients Design and analyze recipes and menus per nutrient content Select ingredients that meet particular nutritional requirements.

CLN ART 235 MENU PLANNING AND PURCHASING (4) CSU

Lecture: 3 hour(s); Lab: 3 hour(s)
Prerequisites: Culinary Arts 111; Culinary Arts 112

Advanced course in menu planning and purchasing using the menu as a tool for ordering, selection and procurement of food and beverage items. Menu, labor, and facility computer generated cost analysis and percentages will be addressed.

Student Learning Outcome:

*Define Menu development for a professional food service facility *Recognize ordering and costing procedures based on menu offered * Compose a flow of food and sale price (door to table) based on the menu, menu item, and food cost * Evaluate system and make changes based on outcome

CLN ART 240 RESTAURANT SUPERVISION AND TRAINING (2) CSU

Lecture: 2 hour(s)
Prerequisite: Culinary Arts 111; Culinary Arts 112;

Students are introduced to human resource management and supervision techniques. Students will identify the recruiting process, communication skills, leadership styles, legal issues in the workforce, employee motivation and discipline.

Student Learning Outcome:

Identify the supervisors role as a leader in a restaurant management situation Discuss the various supervisor obligation in a food service establishment Evaluate supervisors ability to make changes for their employees and themselves

CLN ART 941 COOPERATIVE EDUCATION - CULINARY ARTS (4) CSU

Lecture: 4 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

DIESEL AND RELATED TECHNOLOGY

DIESLTK 112 DIESEL ENGINE AND ELECTRICAL FUNDAMENTALS (11)

Lecture: 6 hour(s); Lab: 15 hour(s)

This course is designed to cover the theory and operation of diesel engine components, shop safety, tools, fastening devices, use of measuring instruments, and electrical systems. The student should develop, hands-on skills, manual dexterity skills, critical thinking skills and basic employment skills.

Student Learning Outcome:

Student should be able to explain the basic principles of operation of any diesel engine and sub-assemblies Student should be able to explain and test the basic principles of operation of the electrical system, charging system, starting system, and the use of a VOM

DIESLTK 112A DIESEL ENGINE FUNDAMENTALS (6)

Lecture: 3 hour(s); Lab: 7.5 hour(s)

This course is designed to cover the theory and operation of diesel engine components and supporting systems, shop safety, tools, fastening devices, and use of measuring instruments.

Student Learning Outcome:

Student should be able to explain the basic principles of operation of any diesel engine and sub-assemblies.

DIESLTK 112B ELECTRICAL FUNDAMENTALS (6) CSU

Lecture: 3 hour(s); Lab: 7.5 hour(s)

This course is designed to cover the theory and operation of electrical fundamentals. The student should develop, hands-on skills, manual dexterity skills, critical thinking skills on electrical parts and systems.

Student Learning Outcome:

Student should be able to explain and test the basic principles of operation of the electrical system, charging system, starting system, and the use of a VOM

DIESLTK 122 DIESEL FUEL INJECTION SYSTEMS & BASIC HYDRAULICS AND AIR CONDITIONING (11) CSU

Lecture: 6 hour(s); Lab: 15 hour(s)

This course covers the principles of fuel injection systems. Emphasis is placed on the proper construction, operation, dis-assembly, diagnosis, reassembly, testing and calibrating of different type of pumps and fuel injectors. Various models will be examined, including electronic systems.

Student Learning Outcome:

Students will demonstrate how different types of injectors work. Students will diagnose and repair an air conditioning system.

DIESLTK 122A DIESEL FUEL INJECTION SYSTEMS (6) CSU

Lecture: 3 hour(s); Lab: 7.5 hour(s)

This course covers the principles of fuel injection systems. Emphasis is placed on the proper construction, operation, dis-assembly, diagnosis, reassembly, testing and calibrating of different type of pumps and fuel injectors.

Student Learning Outcome:

Students will demonstrate how different types of injectors work.

DIESLTK 122B BASIC HYDRAULICS AND AIR CONDITIONING SYSTEMS (6) CSU

Lecture: 3 hour(s); Lab: 7.5 hour(s)

This course will cover electronic fuel systems, including electronically controlled fuel pumps and injectors. Practical application by hands on exercises consisting of dis-assembly and assembly, calibration testing and troubleshooting.

Student Learning Outcome:

Students will diagnose and repair an air conditioning system.

DIESLTK 132 HEAVY DUTY DRIVE TRAIN & AIR BRAKE SYSTEMS (11)

Lecture: 6 hour(s); Lab: 15 hour(s)
Prerequisites: DIESLTK 112 and 122

This course will cover the operating principles and repair of heavy duty clutches, transmissions, drive shafts, and differentials. In addition, students will also learn the operation and repair of air systems, foundation brakes, and anti-lock brake systems.

Student Learning Outcome:

Student will be able to perform various tasks of transmission and clutch maintenance. Student will use various OEM software to diagnose anti-lock brake systems.

DIESLTK 132A HEAVY DUTY DRIVE TRAIN (6)

Lecture: 3 hour(s); Lab: 7.5 hour(s)

This course will cover the operating principles and repair of heavy duty clutches, transmissions, drive shafts, and differentials.

Student Learning Outcome:

Student will be able to perform various tasks of transmission and clutch maintenance.

DIESLTK 132B AIR BRAKE SYSTEMS (6)

Lecture: 3 hour(s); Lab: 7.5 hour(s)

This course will cover the operation and repair of air systems, foundation brakes, and anti-lock brake systems.

Student Learning Outcome:

Student will use various OEM software to diagnose anti-lock brake systems.

DIESLTK 142 DIESEL ENGINE OVERHAUL & ELECTRONIC ENGINE CONTROLS (11)

Lecture: 6 hour(s); Lab: 15 hour(s)
Prerequisite: Diesel and Related Technology 112; and Diesel and Related Technology 122;

This course covers diesel engine overhaul principles including disassembly, inspection, and reassembly as part of overhauling a diesel engine. The operation of electronic engine controls will also be covered with an emphasis on using OEM diagnostic software in the troubleshooting of a diesel engine.

Student Learning Outcome:

Student will be able to perform various tasks of an engine overhaul Student will use various OEM software to diagnose electronic engine controls

DIESLTK 142A DIESEL ENGINE OVERHAUL (6)

Lecture: 3 hour(s); Lab: 7.5 hour(s)

This course covers diesel engine overhaul principles including disassembly, inspection, and reassembly as part of overhauling a diesel engine.

Student Learning Outcome:

Student will be able to perform various tasks of an engine overhaul

DIESLTK 142B ELECTRONIC ENGINE CONTROLS (6)

Lecture: 3 hour(s); Lab: 7.5 hour(s)

The operation of electronic engine controls will be covered with an emphasis on using OEM diagnostic software in the troubleshooting of a diesel engines.

Student Learning Outcome:

Student will be able to utilize various OEM software to diagnose electronic engine controls

DIESLTK 185 DIRECTED STUDY - DIESEL AND RELATED TECHNOLOGY (1)

Lecture: 1 hour

This course allows students to pursue a directed study in Diesel and Related Technology on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in diesel and related technology.

DIESLTK 265 COMPRESSED NATURAL GAS (CNG), LIQUEFIED NATURAL GAS (LNG) FUEL & ELECTRONIC CONTROLS (4)

Lecture: 3 hour(s); Lab: 3 hour(s)

This course provides an introduction to Compressed Natural Gas (CNG) and Liquefied Natural Gas (LNG) fuel safety and handling, CNG/LNG fuel system layout, ignition systems, and the electronic controls that support the use of this alternative fuel.

Student Learning Outcome:

Student will identify CNG/LNG components and explain their function. Student will diagnose CNG/LNG electronic controls using manufacturer diagnostic software.

DIESLTK 285 DIRECTED STUDY - DIESEL AND RELATED TECHNOLOGY (2)

Lecture: 2 hour(s)

This course allows students to pursue a directed study in Diesel and Related Technology on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in diesel and related technology.

DIESLTK 301 INTRODUCTION TO ALTERNATIVE FUELS & HYBRID VEHICLE TECHNOLOGY (1) CSU

Lecture: 1 hour

This course provides an introduction to various alternative fuel technologies being used in the automotive and heavy-duty diesel fields. Covers description and basic operation of Bio-diesel, Compressed Natural Gas (CNG), Liquefied Natural Gas (LNG), Fuel Cell and hybrid vehicle technologies.

Student Learning Outcome:

Student will be able to explain the differences between regular diesel and bio-diesel fuels. Student will understand the differences between Compressed Natural Gas (CNG) and Liquefied Natural Gas (LNG

DIESLTK 302 HYBRID AND PLUG-IN ELECTRIC VEHICLE (6) CSU

Lecture: 3.5 hour(s); Lab: 5 hour(s)

This course covers hybrid vehicle system fundamentals including hybrid vehicle safety, special tools, different hybrid system configurations, high voltage battery construction and maintenance, de-power procedures and basic service.

Student Learning Outcome:

The student will repair hybrid and electric vehicles using specialty tools and equipment in accordance with industry standards.

DIESLTK 303 ADVANCED HYBRID AND PLUG-IN ELECTRIC VEHICLES (5) CSU

Lecture: 2 hour(s); Lab: 6 hour(s)

This course covers advanced hybrid vehicle system diagnostics and replacement of hybrid and plug-in electric components such as high voltage battery, electric motor, capacitors, etc. Troubleshooting of gasoline/diesel engine will also be covered.

Student Learning Outcome:

The student will perform complex hybrid and plug-in electric vehicle troubleshooting using manufacturer diagnostic software, schematics, and specialty tools designed for hybrid and electric vehicle repair.

DIESLTK 385 DIRECTED STUDY - DIESEL AND RELATED TECHNOLOGY (3)

Lecture: 1 hour; Lab: 6 hour(s)

This course allows students to pursue a directed study in Diesel and Related Technology on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in diesel and related technology. The student will assemble a fully functioning laboratory mockup based on the research determined by the contract between the instructor and student.

DIESLTK 941 COOPERATIVE EDUCATION - DIESEL AND RELATED TECHNOLOGY (4)

Lecture: 4 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

DIGITAL MEDIA

DIGLMD 100 INTRODUCTION TO DIGITAL VIDEO (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)

Students are introduced to the process and tools of non-linear video editing. Basic skills will be developed in editing techniques, media file formats, basic audio editing, compression types, industry terminology, development of basic still and motion graphics, and understanding key concepts of shooting for digital systems. Students will produce short video sequences that are appropriately compressed for delivery via web/Internet and various digital media.

Student Learning Outcome:

Students will be able to produce short video sequences that are appropriately compressed for delivery via web/internet and various digital media formats according to industry standards.

DIGLMD 101 FUNDAMENTALS OF DIGITAL MEDIA (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)

Students will survey a range of mass media fields operating today with a particular attention to the development of media in modern history. From the history of print media through radio and television up to the internet age, students will engage in analysis of the ever-changing adaptations of mass media as it relates to globalization, politics, entertainment and consumerism.

Student Learning Outcome:

Students will understand and be able to identify a variety of digital media tools and technologies. Students will be able to create and share digital media content through multiple platforms.

DIGLMD 103 FUNDAMENTAL OF DIGITAL AUDIO (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)

Students are introduced to the principles and process of digital audio recording and reproduction. Topics include such aspects as sound design, acoustics, Dolby surround sound, microphones, mixers, outboard gear, signal flow, and recording and editing audio. Further exploration will involve analog over digital formats and destructive over non-destructive editing.

Student Learning Outcome:

Students will be able to demonstrate sound recording, editing and design skills that meet industry standards.

DIGLMD 104 DIGITAL MEDIA ENTREPRENEURSHIP (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)

Students will develop an understanding of digital media entrepreneurship and how emerging technologies are changing the economics of the new media landscape. Students will pitch start-up projects and develop unique digital media business proposals to demonstrate their understanding of digital media entrepreneurship principles.

Student Learning Outcome:

Students will develop a comprehensive business plan for an entrepreneurial Digital Media concept that reflects industry best practices.

DIGLMD 105 VISUAL STORYTELLING: FILM AND VIDEO (3) RPT 1

Lecture: 3 hour(s)

Students will analyze the core principles of visual design, particularly as they relate to narrative and interactive digital media. Students will then apply those principles to the production of digital media projects.

Student Learning Outcome:

Students will understand the seven basic visual components and will be able to apply complex principles of design toward analyzing and creating visual structures for digital media projects.

DIGLMD 106 ESSENTIALS FOR LIVE AUDIO (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisory: DIGLMD 100

Students will learn about the equipment involved in live events, concepts of sound waves and acoustics, how to setup for various event sizes and configurations, and best practices in mixing for live audio.

Student Learning Outcome:

Students will be able to setup a sound system using a mixer board and PA system for various situations.

DIGLMD 107 DIGITAL AUDIO STUDIO RECORDING (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)
Prerequisite: DIGLMD 100

Students will learn recording techniques of a modern studio and understand the role of the engineer. The course covers modern digital audio workstations using a mixer board to record multiple audio tracks simultaneously, as well as mixing recorded audio for audio balancing.

Student Learning Outcome:

Students will be able to produce a digital recording of audio through a Soundboard using multiple tracks and channels with appropriate levels and adjustments. Students will be able to mix music appropriately and master a collection of founds to ensure continuity.

DIGLMD 110 VISUAL EFFECTS AND MOTION GRAPHICS (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)

Students will learn the craft of video production through hands-on producing of short digital video projects. Over the duration of the course, the students will discover planning, pre-producing, shooting, and post-production of short projects. Projects will emphasize resourcefulness, collaboration and group discourse and introduce students to the technical and creative crafts of shooting and directing digital video.

Student Learning Outcome:

Student will be able to create sophisticated title sequence animations, visual effects and motion graphics for a variety of media using Adobe After Effects.

DIGLMD 115 VIDEO EDITING (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)

Students will engage in film and video editing techniques on a non-linear editing platform. A series of video editing projects will explore technical non-linear editing system skills and editing tools in the service of storytelling craft. Topics covered include theme, structure, continuity, rhythm, flow, suspense, and dramatic irony.

Student Learning Outcome:

Students will be able to use industry standard, non-linear editing systems to effectively cut a video project that demonstrates their understanding of professional standards for editorial techniques and their understanding of the narrative editing process.

DIGLMD 116 INTRODUCTION TO WEB PAGE DESIGN (3) B

Lecture: 2 hour(s); Lab: 2 hour(s)

Students will learn the fundamental elements of websites, theories of web design, and how to develop a basic website.

Student Learning Outcome:

Students will be able to develop a website with multiple pages with a consistent layout using an external style sheet.

DIGLMD 117 INTERMEDIATE WEB PAGE DESIGN (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)

Students will learn the advanced elements of developing an interactive website, dynamic concepts of web design, how to create an image gallery, and implementing a different style sheet for different devices and outputs in a flexible layout.

Student Learning Outcome:

Students will be able to develop a website including an image gallery with a floating layout that will be able to change per output/device and retain the compositional layout.

DIGLMD 118 IMAGE MANIPULATION FOR MULTIMEDIA (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)

Students will explore concepts and processes to enhance and alter images to develop more compelling compositions for multiple modalities in various formats. Course covers advanced Adobe Photoshop techniques that include the use of alpha channels, layers effects, and animation, as well as format changes for the various media types and aspect ratios.

Student Learning Outcome:

Students will be able to generate quality photo manipulated compositions, utilizing multiple techniques and palettes in Adobe Photoshop. Students will be able to optimize for various media types of differing dimensions while maintaining the intended compositional style and readability.

DIGLMD 150 INTRODUCTION TO MOBILE APPLICATIONS (3)

Lecture: 2 hour(s); Lab: 2 hour(s)
Prerequisite: VISCOM 103

Students will develop an understanding of the core principles necessary to design and create mobile applications. Course covers pre-production, interface design, asset behavior and user experience.

Student Learning Outcome:

Student will design and create a fully functional mobile application including file and asset management.

DIGLMD 151 INTRODUCTION TO INTERFACE DESIGN (3)

Lecture: 2 hour(s); Lab: 2 hour(s)
Prerequisite: VISCOM 103

Students will develop an understanding of the core principles necessary to design successful and dynamic Graphical User Interfaces. Course covers the essentials of visual design: color theory, layout and composition, as well as interface behavior and user experience.

Student Learning Outcome:

Student will concept and design a number of visual graphical interfaces.

DIGLMD 152 DIGITAL ART (3)

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisories: VISUAL COMMUNICATIONS 103

Students will develop an understanding of the core principles of digital art and design. Course covers the essentials of digital visual design using Photoshop and Illustrator: color theory, composition, software tools, photo manipulation and image creation.

Student Learning Outcome:

Student will use industry software to create visual assets for games and mobile applications.

DIGLMD 153 2D DIGITAL ANIMATION (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisories: VISUAL COMMUNICATIONS 103

Students will develop an understanding of the core principles of digital 2D animation. Course covers the essentials of animation using Flash: drawing, key framing, betweening, and exporting animation.

Student Learning Outcome:

Student create an animated short using industry standard software.

DIGLMD 155 MOBILE APPLICATION PRODUCTION (3)

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisories: VISUAL COMMUNICATIONS 103

Students will develop and build a completed mobile application. Course covers pre-production, interface design, asset behavior, user experience, and publication of a finished mobile application.

Student Learning Outcome:

Students will develop and build a completed mobile application.

DIGLMD 199 DIGITAL MEDIA LAB (1)

Lab: 2 hour(s)

This is an open lab to offer students access to professional creative applications such as Adobe Illustrator, Flash, Dreamworks, AfterEffects, Photoshop, Premiere, and Soundbooth, and Apple Final Cut Pro, as well as video production equipment to complete coursework in the Digital Media program.

Student Learning Outcome:

The outcome will vary depending on the needs of the student. The student will complete digital media related projects based on course projects.

DRAFTING

DRAFT 010 CADD FOR SUSTAINABLE LANDSCAPE DESIGN (4)

Lecture: 3 hour(s); Lab: 3 hour(s)

Computer Aided Design/Drafting (CADD) applications and Building Information Modeling (BIM) specific to landscape professionals. Includes introduction to CADD skills, block functions, Internet applications, three-dimensional design, presentation drawings, building systems, working drawings, and working drawing coordination.

Student Learning Outcome:

Develop a set of sustainable landscape design for residential and landscape. Apply CAD and BIM computer skills for landscape design solutions. Implement site analysis and documentation for a sustainable landscape design solution

DRAFT 062 CAD FOR ARCHITECTS (3) CSU

Lecture: 1 hour; Lab: 4 hour(s)

This course will focus on the process of generating and managing building data during the life cycle of a building from 'cradle to cradle'. CADD and BIM drawings can create automatically consistent and dynamic views of the building, detail design and increase the productivity, transparency and accountability. CADD and BIM symbols, templates and standards are used to generate simple models from site design to finish products. Virtual information models made with CADD and BIM transform every field, as it connects data to place and space.

Student Learning Outcome:

Operate computer-aided drafting (CAD) software and equipment basic commands, tool bar menus, project navigator and standard templates to document a building in 2d and 3d

DRAFT 063 CADD FOR BUILDING (3) CSU

Lecture: 1 hour; Lab: 4 hour(s)

This course covers CAD (Computer Aided Drafting) and BIM (Building Information Model) for Mechanical, Electrical and Plumbing fundamentals, as it applies to the Architecture Field. Standards, codes, regulatory frameworks and templates are applied as per industry guidance. The student learns how to draw in digital environments and visualize multiple disciplines into a single digital model. This procedure eliminates many of the uncertainties found during the construction phase as well as clashing, scheduling conflicts, construction alignment and 'cradle to cradle' strategies.

Student Learning Outcome:

Operate computer-aided drafting (CAD MEP software and equipment basic commands, tool bar menus, project navigator and standard templates to document a building in 2d and 3d

ECONOMICS

ECON 001 PRINCIPLES OF ECONOMICS I (3) UC:CSU

Lecture: 3 hour(s)

This course provides an introductory of microeconomic analysis and their application to business situation. Emphasis is on supply and demand, elasticities, consumer choice optimization, profits, economic rent, financial environment of business, market structure, economic and social regulations, and antitrust policy in a globalized economy.

Student Learning Outcome:

1. Student will evaluate individual, professional and government choices in terms of scarcity. 2. Student will apply the understanding of the interaction of demand and supply concept to determine the market price and market quantity of commodity that is produced and consumed. 3. Student will apply the rationing functions of prices and assess the effect of price floor related to under production and over production in the economy. 4. Student will apply the concept of economic change to career development and lifelong learning

ECON 002 PRINCIPLES OF ECONOMICS II (3) UC:CSU

Lecture: 3 hour(s)

This macroeconomics course concentrates on the behavior of the economy as a whole and includes such economy wide phenomena as changes in unemployment, general price level and national income. Emphasis is placed on public spending and public choice, economic fluctuations and business cycles. Other topics include fiscal and monetary policy, deficit spending and public debt, money creation, banking and central banking, policies and prospects for global economic growth, comparative advantage, international trade and contemporary economic developments.

Student Learning Outcome:

1. Student will evaluate individual, professional and governmental choices in terms of scarcity. 2. Student will evaluate the limitations of using GDP as a measurement of social welfare. 3. Student will assess the influence of Federal Reserve's monetary policy actions on the market interest rates. 4. Student will assess why nations can gain from specializing in production and gain from international trade and incorporate the concept for career goals and lifelong learning.

EDUCATION

EDUC 001 INTRODUCTION TO TEACHING (3) CSU

Lecture: 3 hour(s)

This course introduces students to the field of professional education and the concepts and issues that are related to K - 8 education. Topics of this course include a basic understanding of a teacher's role and challenges in society, contemporary education issues within historical, social, philosophical, legal, and political contexts, impact of government policies on schools and children, and the various perspectives on curriculum and instruction. Students are required to complete a minimum of 45 hours of fieldwork in an approved elementary, self-contained classroom. TB test, finger print (live scan), and background check may be required by individual elementary school.

Student Learning Outcome:

At the end of this course, students will be able to: 1. Describe various major historical developments in American education and the impact they have on the public education system and describe possible solutions. 2. Analyze the implication of various philosophies and theoretical frameworks on classroom teachers' curriculum design, delivery, and assessment; classroom management; and instructional approaches. 3. Design and present a lesson plan based on your educational philosophy, utilizing the California Department of Education's curriculum standards or other state and/or professional curriculum standards.

EDUC 006 METHODS AND MATERIALS OF TUTORING (1) C RPT 3

Lab: 3 hour(s)

This course trains students in individual and group tutoring and instructional techniques, group dynamics, interpersonal skills, record-keeping, organizational skills and study skills. It covers tutoring and instructional strategies that promote independent learning. This course is intended for students, paraprofessional educators, and also parents who are interested in learning, teaching, and applying effective instructional and tutoring techniques.

Student Learning Outcome:

1. Explain the foundational instructional knowledge and strategies needed for successful tutoring, regardless of subject matter content or academic discipline. 2. Plan, design and choose specific tutoring and instructional strategies for at least two learning styles to enhance academic success.

ELECTRICAL CONSTRUCTION AND MAINTENANCE

ECONMT 001 RESISTIVE CIRCUIT ELECTRICAL FUNDAMENTALS (3)

Lecture: 3 hour(s)

The course covers the basic principles of D.C. electricity. Course content will center on the analysis of basic series and parallel circuits, using Ohm's law, the power equations, and Kirchoff's laws. Proper application of appropriate mathematical concepts will be stressed.

Student Learning Outcome:

1. Student will analyze and solve mathematical equations to resolve unknown values associated with series electrical circuits. 2. Student will analyze and solve mathematical equations to resolve unknown values associated with parallel electrical circuits. 3. Student will analyze and solve mathematical equations to resolve unknown values associated with combination circuit electrical circuits.

ECONMT 006 SECURITY AND FIRE ALARM TECHNICIAN CERTIFICATION (3) CSU

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)

This course offers instruction in the installation of Fire and Security alarms. Upon successful completion of the course the student will be eligible to request and test for an installer certification by the National Alarm Association of America.

Student Learning Outcome:

1. Student will draw and construct coaxial patch cables. 2 Student will demonstrate knowledge of basic alarm systems.

ECONMT 007 HOME THEATER & COMMERCIAL AUDIO, VIDEO INSTALLATION THEORY AND PRACTICES (3)

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)

This course offers instruction in the installation of Home Theater Video and Audio systems as well as commercial and industrial applications for audio and video technology. Upon successful completion of the course the student will have the skills to enter this area of the electrical trade.

Student Learning Outcome:

SLO #1: Analyze job requirements and select proper equipment to meet the needs of the job. SLO # 2: Design, layout and install a complete home theater system in a laboratory setting. SLO #3: Demonstrate troubleshooting of an installed system, including a repair plan to correct identified defects. SLO #4 Demonstrate knowledge of electrical safety work Practices

ECONMT 100 (O.S.H.A.) SAFETY STANDARDS: CONSTRUCTION & INDUSTRY (2)

Lecture: 2 hour(s)
(Same as Building Construction Techniques 102)

This course provides instruction on industry safety and health rules as it applies to workers and employers within the construction industry. Topics such as fall protection, lock out tag out procedures, PPE, excavations, etc. are covered. Participants that meet the required hourly attendance and successfully pass the final exam will be eligible to receive their OSHA (30 hr) safety-training certificate.

Student Learning Outcome:

1. Recognize appropriate training requirements and training methods. 2. Define OSHA specific construction terms such as; competent person, construction work, confined space, working space, general duty clause. 3. Select situational appropriate PPE.

ECONMT 101 ELECTTRICAL CRAFT HELPER (4) CSU

Lecture: 4 hour(s)

This course is designed as entry level preparation for a student interested in careers in the electrical power industry. This introductory course covers the basic fundamentals of planning, installation and maintenance of high and low voltage electrical systems. Basic functions of generation, both hydro and steam are covered. The transmission and distribution of electrical power will be reviewed. Fundamentals of electricity, identification, function, and operation of components will be surveyed. Ohms law, safety, ropes, knots, rigging, and tools required in the trade will be reviewed. Civil service exam assistance will also be covered.

Student Learning Outcome:

List the types of knots utilized for common rigging operations. State the required safety regulation and practices of the power line industry. Describe the precautions and safeguards required of employees working in the power line industry.

ECONMT 105 FUNDAMENTALS OF SOLAR ELECTRICITY (3) CSU

Lecture: 3 hour(s)

This course is designed for students interested in a career in the solar industry. The fundamental principles and functions of photo voltaic industry will be introduced. This course covers planning, installation, maintenance and all the necessary components for a photo voltaic system. The transmission and distribution of electric power will be reviewed. Basic concepts of electricity, identification, functions and operations of components will be surveyed.

Student Learning Outcome:

1. Describe the history of PV technology and the industry and list available markets and possible applications for PV systems. Identify types of PV systems and their application. Describe the advantage and disadvantage of each. Identify safety practices and protective equipment used to mitigate hazards in the installation and maintenance of PV systems. 2. Define basic electrical/solar terms including: energy, power, series and parallel electrical circuits. Define basic solar terms including: irradiation, irradiance, tilt angle, latitude, longitude, azimuth angle etc. Determine series/parallel PV array arrangement based on module and inverter specifications. 3. Describe the testing standards for solar modules and identify measurement conditions for solar cells and modules. Label key points and describe effects of environmental conditions on a typical IV curve. 4. Describe the use of a digital multi-meter, pyranometer, compass, and given a declination map, differentiate true south from magnetic south. Identify parts and demonstrate the ability to use the Sun pathfinder and do shading analysis.

ECONMT 110 RENEWABLE ENERGY SYSTEMS (3) CSU

Lecture: 3 hour(s)

This course will cover energy basics, solar basics, both active and passive, solar-thermal and solar-electric, wind, hydro-power, wave and tidal power, bio-fuel and biomass resources, geothermal power, energy storage and hydrogen fuel cells. Both large and small scale, grid interactive and stand-alone systems will be discussed. Energy collection, site evaluation, design analysis of various systems, material use, and methods of construction will also be covered, along with overviews of California and US energy policy and global energy use.

Student Learning Outcome:

1. Discuss the history of renewable energy development. 2. List the regions of the globe where specific renewable options are most or least viable. 3. List the components needed for various renewable energy sources.

ECONMT 115 FUNDAMENTALS OF D.C. ELECTRICITY (3) CSU

Lecture: 3 hour(s)

This course offers study in the Fundamentals of D.C. Electricity. Subjects include: Electrical safety, the basic principles of atomic structure, electrical quantities, static electricity, magnetism, induction, resistors, series circuits, parallel circuits, and combination circuits. The proceeding resistive circuits will be analyzed using Ohm's Law, The Power Equation and Kirchhoff's Voltage and Current Laws.

Student Learning Outcome:

1. Student will analyze and solve Series Circuit problems. 2. Student will analyze and solve Parallel Circuit problems. 3. Student will analyze and solve Combination Circuit problems.

ECONMT 116 HANDTOOLS AND WIRING PRACTICES (2) CSU

Lab: 6 hour(s)

This course covers the proper use of Hand Tools, Wiring Methods, Conductor Identification, Selection, Splicing and Termination. Trade Practices and an Introduction to the National Electrical Code.

Student Learning Outcome:

1. Student will construct various Knots. 2. Student will locate and interpret information in the National Electrical Code. 3. Student will demonstrate knowledge of electrical safety work practices.

ECONMT 117 ELEMENTARY CIRCUIT PRACTICES (4) CSU

Lab: 12 hour(s)

This course offers instruction in the drawing and analysis of wiring plans, wiring diagrams, and ladder diagrams. Including the wiring of both low and high voltage circuits utilizing: push button, single pole, standard three way, coast three way, standard four way, coast four way, and master switching systems.

Student Learning Outcome:

1. Student will interpret and identify the components of a 4 Way Switching System. 2.Student will interpret and identify the components of a 3 Way Switching System. 3. Student will demonstrate knowledge of electrical safety work practices.

ECONMT 119 ELECTRICAL CONSTRUCTION AND MAINTENANCE (3) CSU

Lecture: 3 hour(s)

This is an entry level course in electrical calculations and measurements with special emphasis on the application problems encountered in the electrical construction industry.

Student Learning Outcome:

1. Student will interpret and solve Common Fraction problems. 2. Student will interpret and solve Decimal Fraction problems. 3. Student will interpret and solve Percent problems.

ECONMT 120 INDUSTRIAL CONTROL SYSTEMS (3) CSU

Lecture: 3 hour(s)
Prerequisite: Electrical Construction and Maintenance 115; and Electrical Construction and Maintenance 119

This course is a study of motors, circuits and devices used for controlling electric motors and the National Electrical Code covering motor installation.

Student Learning Outcome:

1. Draw a ladder diagram of a control strategy to control a motor from two different locations and the ability to start or stop the motor from either location, utilizing two start/stop stations a single phase AC motor and a relay or magnetic motor starter. 2. Draw a ladder diagram of a control strategy to run, jog and stop a single phase AC motor, utilizing two start/stop stations a single phase AC motor and a relay or magnetic motor starter. 3. Given the horsepower rating along with other nameplate data, and the distance from the motor branch circuit disconnect to the auxiliary gutter; the student will apply the National Electrical Codes to find the correctly sized conduit, wire, magnetic motor starter, safety switch, fuses, tap feeders, and tap feeder conductor . The answers must be correct to the industry standard of 70% correct.

ECONMT 128 INDUSTRIAL CONTROL SYSTEMS PRACTICES (3) CSU

Lab: 9 hour(s)
Prerequisite: Electrical Construction and Maintenance 120; and Electrical Construction and Maintenance 136 or Electrical Construction and Maintenance 184

This course fosters the development and application of control circuitry through the use of instructional wiring panels and lab project boards. The course includes manual and electromagnetic control of motors using switches, pushbuttons, relays and starters for sequencing, jogging, reversing and timed control of motors and circuits.

Student Learning Outcome:

1. Utilizing a ladder diagram, create a wiring diagram, connect power and control circuits to create a control strategy to control a motor from two different locations and the ability to start or stop the motor from either location and wiring diagrams. 2. Utilizing a ladder diagram, create a wiring diagram, connect power and control circuits to create a control strategy to run, jog and stop a single phase AC motor, utilizing two start/stop stations a single phase AC motor and a relay or magnetic motor starter. 3. Utilizing a ladder diagram, create a wiring diagram, connect power and control circuits to create a control strategy to run two motors in sequence start, and sequence stopping of two motors, utilizing two start/stop stations two single phase AC motors and two relays or magnetic motor starters.

ECONMT 128A INDUSTRIAL CONTROL SYSTEMS PRACTICES A (1) CSU

Lab: 3 hour(s)

This course fosters the development and application of control circuitry through the use of instructional wiring panels and lab project boards. The course includes manual and electromagnetic control of motors using switches, pushbuttons, relays and starters for sequencing, jogging, reversing and timed control of motors and circuits.

Student Learning Outcome:

1. Connect control and power circuits using schematic and wiring diagrams

ECONMT 128B INDUSTRIAL CONTROL SYSTEMS PRACTICES B (1) CSU

Lab: 3 hour(s)

This course is the second module of the 128 A, B, C series and continues to foster the development and application of control circuitry through the use of instructional wiring panels and lab project boards. The course includes manual and electromagnetic control of motors using switches, pushbuttons, relays and starters for sequencing, jogging, reversing and timed control of motors and circuits.

Student Learning Outcome:

1. Connect control and power circuits using schematic and wiring diagrams

ECONMT 128C INDUSTRIAL CONTROL SYSTEMS PRACTICES C (1)

Lab: 3 hour(s)

This course is the final module of the 128 A, B, C series and finalizes the development and application of control circuitry through the use of instructional wiring panels and lab project boards. The course includes manual and electromagnetic control of motors using switches, pushbuttons, relays and starters for sequencing, jogging, reversing and timed control of motors and circuits.

Student Learning Outcome:

1. Connect control and power circuits using schematic and wiring diagrams

ECONMT 129 FUNDAMENTALS OF ALTERNATING CURRENT (3) CSU

Lecture: 3 hour(s)
Prerequisite: Electrical Construction and Maintenance 115; Electrical Construction and
Maintenance 119;

This course offers a study in operating principles of electrical power systems, the theory of A.C. generators and motors, load calculations, efficiencies, power factor correction, and calculations related to these theories.

Student Learning Outcome:

1. Apply appropriate Ohms laws, mathematical rules and trigonometry to solving electrical calculations Given a supply voltage, the current flowing into a motor and the resistance of the motors windings, the student will apply ohms laws and calculate the total Apparent Power, True Power, Reactive Power, Impedance, Inductive Reactance, Phase Angle and the Power Factor of the motor circuit. 2. Apply appropriate units of measure using Engineering notation. 3. Calculate AC circuit and transformer; power, voltage, current, resistance and impedance.

ECONMT 130 PRINCIPLES OF INDUSTRIAL ELECTRIC POWER (3)

Lecture: 3 hour(s)

This course offers a study in operating principles and maintenance procedures and code requirements for electrical power systems. Theory of D.C. and A.C. generators and motors, load calculations, efficiencies and power factor correction are also covered.

Student Learning Outcome:

Analyze drawings of control and power circuits used in industry. Analyze various motor acceleration methods. The students will compare and contrast the efficiency of the different methods. Calculate transformer voltage, current, and KVA ratings.

ECONMT 136 INDUSTRIAL POWER APPLICATIONS (3)

Lab: 9 hour(s)

This course offers a practical study on shop experience in testing, servicing and repairing industrial plant electrical equipment, connection and operation of generators, as well as motors and their control systems.

Student Learning Outcome:

Connect electrical motor control equipment to single and three phase motors to National Electrical Code standards in a safe and workman-like manner using proper lock out and tag out procedures. Demonstrate electrical control troubleshooting skills, and the ability to identify electrical open circuits, electrical short circuited connections and electrically grounded circuits. Present finished drawings of all connections made during class.

ECONMT 137 INDUSTRIAL ELECTRONIC CONTROL SYSTEMS (3)

Lecture: 3 hour(s)

In this course fundamental electronic and semiconductor theory as well as applications of electronic devices to industrial control systems are studied. Boolean algebra, logic circuits and numbering systems as they used in industrial controls are examined. Transducers, photoelectric limit switches and other industrial devices are studied.

Student Learning Outcome:

Students will analyze electronic control and power circuits. The student will be able to identify different discrete electronic components and explain their operation in an industrial motor controller. Students will reconfigure basic logic circuits to achieve alternate logical results.

ECONMT 138 APPLICATIONS OF ELECTRICAL AND ELECTRONICS DEVICES (2) CSU

Lab: 6 hour(s)

This course studies identification and operational tests on various types of electrical and electronic equipment, including transformers, electronic motor speed control systems and other industrial control devices.

Student Learning Outcome:

Construct digital logic circuits, and analyze them using Boolean Algebra. Use solid state relays to energize motors or motor starters. Compare and contrast logic gates using truth tables.

ECONMT 140 CONSTRUCTION WIRING PRINCIPLES AND PRACTICES (3)

Lecture: 3 hour(s)
Prerequisite: Electrical Construction and Maintenance 130; and Electrical Construction and Maintenance 136; Corequisite: Electrical Construction and Maintenance 167

This class teaches the wiring of electrical systems, including: layout, construction methods, code requirements, installation standards, and best practices.

Student Learning Outcome:

Students will design wiring plans, which conform to various load and control requirements, which result in minimum material use. Students will calculate the full load currents, and the appropriately sized wire and protective devices for an assigned transformer according to the current National Electrical Code.

ECONMT 142 BASIC PROGRAMMABLE LOGIC CONTROLS (PLC) (1)

Lab: 3 hour(s)

Introduction to Basic Programmable Logic Controllers, Programming Devices, Ladder Diagrams and Designing PLC Programs for Industrial Processes.

Student Learning Outcome:

Identify the advantages of a programmable controller. Identify four components of a programmable controller. Identify input and output devices connected to a programmable controller.

ECONMT 150 INTRODUCTION TO THE ELECTRICAL CODES (3)

Lecture: 3 hour(s)
Prerequisite: Electrical Construction and Maintenance 130; and Electrical Construction and Maintenance 136; Corequisite: Electrical Construction and Maintenance 140

This is a study and interpretation of the National Electrical Code, local ordinances, and regulations covering wiring installations and principal circuit requirements.

Student Learning Outcome:

Students will calculate loads and currents for assigned industrial, commercial, and residential occupancies. Students will calculate the appropriately sized wire, conduit, and protective devices for the assigned industrial, commercial, and residential occupancies according to the current National Electrical Code.

ECONMT 159 PROGRAMMABLE LOGIC CONTROLS (PLC) (4) CSU

Lecture: 2.5 hour(s); Lab: 4.5 hour(s)
Prerequisite: Electrical Construction and Maintenance 120; and Electrical Construction and Maintenance 136 or Electrical Construction and Maintenance 184

Programmable Logic Controller wiring, programming, and troubleshooting techniques are learned and practiced in a hands-on laboratory environment.

Student Learning Outcome:

Identify, illustrate, and apply PLC Input/Output components Plan, design, and construct PLC wiring diagrams Plan, design, and construct working PLC programs Troubleshoot faulty PLC hardware and software

ECONMT 164 SUSTAINABLE LIGHTING PRINCIPLES & PRACTICES (3) CSU

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)
Prerequisite: ECONMT 119

This course offers study in the design of residential and commercial lighting systems. Included, are both indoor and outdoor lighting applications, emphasizing sustainable lighting design and energy saving strategies.

Student Learning Outcome:

Student will analyze and interpret ballast wiring diagram and install replacement ballast.

ECONMT 167 ELECTRICAL CONSTRUCTION WIRING TECHNIQUES (3)

Lab: 9 hour(s)
Prerequisite: Electrical Construction and Maintenance 130; and Electrical Construction and Maintenance 136; Corequisite: Electrical Construction and Maintenance 150

Students are taught and practice electrical rough-in methods, while emphasizing safe working methods and compliance with Electrical Codes and trade standards.

Student Learning Outcome:

Students will correctly install different cable and different conduit wiring methods as laboratory projects. Students will install various switches and receptacles in the cable and conduit wiring projects. Students will install the appropriately sized wire, conduit, and protective devices for the assigned laboratory projects. Students will correctly splice and terminate electrical building wire as part of each lab project. Student will follow Lockout/Blockout procedures and other recognized electrical workplace safety procedures at all times in lab.

ECONMT 168 INSTALLATION OF ELECTRICAL WIRING (2)

Lab: 6 hour(s)
Prerequisites: ECONMT 130 & 136; Corequisite: ECONMT 150

Students learn to, and practice, calculating and laying out interior electrical conduit and cable wiring systems, followed by practical installations, including rough-in and finishing techniques.

Student Learning Outcome:

Students will draw, read, and interpret electrical schematic diagrams and wiring plans. Students will analyze and troubleshoot faulty electrical wiring systems

ECONMT 169 ALTERNATING CURRENT PRACTICES (2)

Lab: 6 hour(s)

This course offers a study in operating principles, and electrical power systems. Theory of A.C. generators and motors, load calculations, efficiencies and power factor correction, and calculations related to these theories demonstrated with projects.

Student Learning Outcome:

1. Apply appropriate Ohms laws, mathematical rules and trigonometry to solving electrical calculations Given a supply voltage, the current flowing into a motor and the resistance of the motors windings, the student will apply ohm's laws and calculate the total Apparent Power, True Power, Reactive Power, Impedance, Inductive Reactance, Phase Angle and the Power Factor of the motor circuit. 2. Apply appropriate units of measure using Engineering notation. 3. Calculate AC circuit and transformer; power, voltage, current, resistance and impedance. 4. Given a project workstation that may be wired as an Edison 3 Wire Supply (two different phases of 120 volts and a neutral) students will calculate the current imbalance with various imbalanced loads. Then students will open the neutral circuit and find the imbalance in voltage as the circuit becomes a combination circuit. Finally, these calculations are checked against measured values on the workstation.

ECONMT 171 ELECTRICAL CODES AND ORDINANCES I (3)

Lecture: 3 hour(s)

Basic electrical codes and ordinances are the focus of this course. General codes, wiring methods and fittings, and circuit requirements specified in the various ordinances are reviewed.

Student Learning Outcome:

1. List electrical codes by topic and article. 2. Identify topic specific electrical code requirements such as; service size, circuit protection, branch circuits, and box sizing. 3. Interpret various electrical codes applied to various electrical installation examples.

ECONMT 172 ELECTRICAL CODES AND ORDINANCES II (3)

Lecture: 3 hour(s)

Advanced electrical codes and ordinances are the focus of this course. General codes, wiring methods and fittings, and circuit requirements specified in the various ordinances are reviewed.

Student Learning Outcome:

1. List electrical codes by topic and article. 2. Identify topic specific electrical code requirements such as; service size, circuit protection, branch circuits, and box sizing. 3. Interpret various electrical codes applied to various electrical installation examples.

ECONMT 173 ELECTRICAL MATHEMATICS I (3)

Lecture: 3 hour(s)

This is an entry level course in electrical calculations and measurements with special emphasis on the application problems encountered in the electrical construction industry.

Student Learning Outcome:

1. Student will interpret and solve Common Fraction problems. 2. Student will interpret and solve Decimal Fraction problems. 3. Student will interpret and solve Percent problems.

ECONMT 174 ELECTRICAL MATHEMATICS II (3)

Lecture: 3 hour(s)

Topics covered in this course are problems relating to A.C. power applications, use of the scientific calculator, percentage ratio and proportions, wire sizing, voltage drops, energy and efficiency calculations, trigonometric functions, phasor diagrams, A.C. single and poly-phase circuits, transformers, star and delta connections and mathematics for logic controls.

Student Learning Outcome:

1. Student will interpret and solve Signed Number problems. 2. Student will interpret and solve Ratio & Proportion problems. 3. Student will interpret and solve Algebraic problems.

ECONMT 177 ELECTRIC MOTOR CONTROL I (3)

Lecture: 3 hour(s)

This course studies basic motor control fundamentals including the basic functions of control. Magnetic principles of D.C. and A.C. motors, types of motors, motor selection fundamentals are reviewed. Topics covered also include definitions for controller components and symbols, familiarization with N.E.M.A. standards and review of one-line, wiring and schematic diagrams.

Student Learning Outcome:

1. Students will identify which NEMA enclosures are rated for which environmental conditions. 2. Students will identify symbols used in electrical motor control. 3. Students will create a ladder diagram, using correct symbols, labels and lines to utilize duel element two duel element pushbuttons, a magnetic coil relay or motor starter, a single phase AC motor demonstrating three wire control to operate two start stop stations to control the motor from two different locations.

ECONMT 178 ELECTRIC MOTOR CONTROL II (3)

Lecture: 3 hour(s)

This course focuses on a brief review of material covered in Electric Motor Control I and the selection and application of D.C. and A.C. controllers with emphasis on the A.C. devices. Study areas include manual, magnetic, across-the- line starters, as well as most forms of reduced voltage starters including the auto transformer, primary resistor, star-delta, part-winding and wound rotor type reduced voltage starters. Synchronous, multi-speed starters and the many methods of decelerating and braking and static components are discussed.

Student Learning Outcome:

Analyze various motor acceleration methods. The students will compare and contrast the efficiency of the different methods. Analyze drawings of control and power circuits used in industry.

ECONMT 181 BASIC WIRING PRACTICES (3)

Lecture: 3 hour(s)

This course contains the study of basic electrical diagrams; such as: wiring plans, wiring diagrams, and ladder diagrams. Topics of discussion include: Architectural symbols and drawings, reading and interpreting plans and specifications, as well as the drawing of basic circuits.

Student Learning Outcome:

1. Student will identify the components of a Standard 3 Way Switching System and its terminations. 2. Student will identify the components of a Standard 4 Way Switching System and its terminations. 3. Student will demonstrate an understanding on the use of hand tools in a safe and workmanlike manner.

ECONMT 182 BASIC DIAGRAM AND CIRCUIT PRACTICES (1)

Lab: 3 hour(s)

This course provides practical shop practice in the wiring of signal, communication and control circuits. Connection of device mechanisms such as, lights, buzzers and relays are specifically reviewed.

Student Learning Outcome:

1. Student will identify the components of a Standard 3 Way Switching System and its terminations. 2. Student will identify the components of a Standard 4 Way Switching System and its terminations. 3. Student will demonstrate an understanding on the use of hand tools in a safe and workmanlike manner.

ECONMT 183 RESIDENTIAL ELECTRIC WIRING (3)

Lecture: 3 hour(s)

This Course covers the design and layout of residential electrical wiring in accordance with the National Electrical Code and recognized best trade practices.

Student Learning Outcome:

Students who complete this class with an aggregate score exceeding 70% will calculate feeder and service loads for residential occupancies. Students who complete this class with an aggregate score exceeding 70% will select wiring methods suitable for residential occupancies. Students who complete this class with an aggregate score exceeding 70% will design wire sizes and outlet locations suitable for residential occupancies.

ECONMT 184 MOTOR CONTROL PRINCIPLES AND PRACTICES (3)

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)

This course will examine the testing, adjusting, servicing and connecting motors, generators and associated controllers. Reduced voltage starters and other motor starting techniques will be studied.

Student Learning Outcome:

1. Demonstrate familiarity with the theory and principles of AC single and three-phase motors, DC motors, generators and alternators. 2.Be able to install above machines by connecting power and control circuits, as well as demonstrate motor control troubleshooting skills, and the ability to identify electrical opens, shorts and ground faults. 3. Demonstrate the ability to solve motor control calculations, design and convert elementary diagrams of the advanced motor control systems from both written and oral instructions into workable wiring installations.

ECONMT 185 DIRECTED STUDY - ELECTRICAL CONSTRUCTION AND MAINTENANCE (1)

Lecture: 1 hour

This course allows students to pursue a directed study in Electrical Construction & Maintenance on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in Electrical Construction & Maintenance.

ECONMT 185L DIRECTED STUDY, ELECTRICAL CONSTRUCTION AND MAINTENANCE(LAB) (1)

Lab: 3 hour(s)

This course allows students to pursue a directed study in Electrical Construction & Maintenance on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will design and construct a lab project based on a topic in Electrical Construction & Maintenance.

ECONMT 186 INDUSTRIAL ELECTRICAL PRINCIPLES AND PRACTICES (3)

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)

This course content includes the use of measuring instruments, connecting and testing transformer banks and connecting and testing industrial electronic control devices. This course discusses single phase and three phase transformers.

Student Learning Outcome:

1. Identify single phase and three transformers as well as differentiate between the two types 2. Safely connect three single phase transformers into a variety of connections for a three phase bank operation. 3. Be able to do calculations involving single phase as well as three phase transformers.

ECONMT 187 ADVANCED PROGRAMMABLE CONTROLLERS (4)

Lecture: 2.5 hour(s); Lab: 4.5 hour(s)
Prerequisite: Electrical Construction and Maintenance 159;

Programmable Logic Controller lecture and laboratory class, including Sequencers, Shift Registers, Analog I/O, and Subroutines, taught using RSLogix software.

Student Learning Outcome:

Design, construct, and develop working PLC programs using advanced PLC instructions Identify the four key elements that make up a closed loop process control system. Troubleshoot a programmable controller program.

ECONMT 190 ELECTRICAL CODE CALCULATIONS (3)

Lecture: 3 hour(s)

This is a course to improve one's skill in the application of mathematical calculations for determining wire/conductor sizes, outlet number and size, pull boxes dimensions, conduit fill, device and conductor ampacities, voltage drop, motor circuit components sizing, and service loads. The calculation will be based on the current rules and regulation as noted in the National Electrical Code standards.

Student Learning Outcome:

1. List electrical codes by topic and article. 2. Identify topic specific electrical code requirements such as; service size, circuit protection, branch circuits, and box sizing. 3. Interpret various electrical codes applied to various electrical installation examples.

ECONMT 191 COMMERCIAL WIRING AND PRACTICES (2)

Lecture: 1 hour; Lab: 3 hour(s)

Instruction is given in installation of wiring systems such as non-metallic sheathed cable, armored cable, flexible metal conduit, electrical metallic tubing, and PVC. Emphasis is given on National Electric Code standards.

Student Learning Outcome:

The student will be able to wire a commercial electrical circuit following a wiring diagram using approved methods. The student will be able to take accurate voltage measurements using the meter's low impedance scale and discern between actual voltage and so called ghost or phantom voltages .The student will learn to work with safety glasses, safe shoes or boots, and follow safety lockout/tagout procedures.

ECONMT 192 RESIDENTIAL WIRING AND PRACTICES (2)

Lecture: 1 hour; Lab: 3 hour(s)

The course content includes the installation of residential wiring materials including non-metallic sheathed cable, armored cable and flexible metal conduit for outlets, appliances and lighting.

Student Learning Outcome:

The student will be able to wire a residential electrical circuit following a wiring diagram using approved methods. The student will be able to take accurate voltage measurements using the meter's low impedance scale and discern between actual voltages and so called ghost or phantom voltages. The student will learn to work with safety glasses, safe shoes or boots, and follow safety lockout/tagout procedures.

ECONMT 193 CONDUIT BENDING AND CALCULATIONS (3)

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)

This class teaches bending cutting and threading of conduits: EMT (Electrical Metallic Tubing), rigid, and IMC (Intermediate Metal Conduit) and the calculations that are included in these operations. Conduit will be bent with hand and hydraulic benders.

Student Learning Outcome:

Students will bend stubs, saddles, offsets, and back-to-back bends to specified dimensions in EMT, IMC, and rigid conduit. Students will thread IMC and rigid conduit Students will prepare, plan, and calculate conduit bends

ECONMT 193A CONDUIT BENDING LABORATORY (1)

Lab: 3 hour(s)
Corequisite: Electrical Construction and Maintenance 168

This class practices the cutting and bending of electrical conduits, and the necessary calculations included in these operations. EMT conduit will be bent with hand benders.

Student Learning Outcome:

Students will bend stubs, saddles, offsets, and back-to-back bends in EMT conduit.

ECONMT 195 GROUNDING: FUNDAMENTALS, APPLICATIONS AND PRACTICES (3)

Lecture: 3 hour(s)

This course will cover the fundamentals of electrical system grounding principles of reviewing definitions, theory, and equipment installations. Application to accepted industry practices, compliance to the National Electrical Code, review of lightning protection and electronic equipment grounding will be covered.

Student Learning Outcome:

1. Differentiate between Grounding and Bonding. Define terms associated with grounding and bonding such as: ground, grounding, grounded, bonding, bonded, ground fault current etc. 2. State Grounding and Bonding requirements and identify NEC code sections for safety and compliance. 3. Be able to identify and apply NEC sections pertaining to Grounding and Bonding.

ECONMT 196 INFRASTRUCTURE WIRING PRACTICES (4)

Lecture: 1 hour; Lab: 6 hour(s)

This course offers instruction in the installation, termination, testing and documentation of commercial infrastructure wiring including the following: Coaxial Cable, Category 3, 5, 5E, & 6 Unshielded Twisted Pair, and Fiber Optics.

Student Learning Outcome:

1. Student will demonstrate knowledge of electrical safety work practices.
2. Student will perform the tasks required to construct a CAT5 patch Cable.
3. Student will perform the tasks required to construct a Fiber Optic patch Cable.

ECONMT 197 LOW VOLTAGE ELECTRICAL PRACTICES (3)

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)

This course offers instruction in the installation, termination, testing and documentation of low voltage systems, such as lighting, communication, telephone, data, control systems, and similar low voltage applications.

Student Learning Outcome:

1. Student will demonstrate knowledge of electrical safety work practices. 2. Student will perform the tasks required to construct a CAT5 patch Cable. 3. Student will perform the tasks required to construct a Coaxial patch Cable.

ECONMT 199 JOURNEYMAN ELECTRICAN EXAM PREPARATION (3)

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)

This course will prepare the student for the State of California Electricians' Certification Examination. The distance education version of the class uses the Internet, World Wide Web and personal e-mail.

Student Learning Outcome:

1. Student will apply electrical calculations and measurements. 2. Student will identify trade specific electrical codes. 3. Student will pass a simulated Certification exam.

ECONMT 205 SOLAR ENERGY INSTALLATION & MAINTENANCE PRINCIPLES AND PRACTICES (2)

Lab: 6 hour(s)

This course is designed for individuals who have the basic electrical and mechanical skills of an energy technician or electrician and are looking to expand into the renewable energy field. This is a hands on class to develop the fundamental principles and practices for installation and maintenance of solar, wind, and similar renewable energy systems. This course covers basic planning, installation, and maintenance of the necessary components for various renewable energy systems.

Student Learning Outcome:

1 Demonstrate the ability to use safety harnesses while working on roofs. Follow all safety rules and regulations while working on roofs, in attics and around all electrical equipment during the installation of a renewable energy system. 2. Analyze a site assessment and select the appropriate system and design. Conduct a site survey and develop a written report that accounts for shading, array orientation, mounting methods and equipment BOS locations. Perform a system installation following manufacturer's directions. 3. Adapt a systems mechanical design to conform to the individual site assessment needs taking into account ambient temperature, verify component sizes and capacities. Demonstrate and install subsystem components to an industry acceptable standard.

ECONMT 212 SIGNIFICANT CHANGES NEC - NATIONAL ELECTRICAL CODE (3) CSU

Lecture: 3 hour(s)
Prerequisite: Electrical Construction and Maintenance 172

Continuing education for the journeyman electrician. This course covers the changes to the National Electrical Code made during each 3 year code revision cycle. Each change to the code will be highlighted and how the change will impact the industry practices will be covered.

Student Learning Outcome:

1. List electrical codes by topic and article. 2. Identify topic specific electrical code changes, such as; grounding, OCP, motors, transformers, hazardous locations, healthcare facilities. 3. Interpret and discuss the trade impact of various electrical codes changes.

ECONMT 215 SMALL WIND ENERGY SYSTEMS PRINCIPLES AND PRACTICES (3)

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)

This course is designed for individuals that have the basic electrical and mechanical skills of an energy technician or electrician and are looking to expand into the small wind energy field. This class will help one to develop the fundamental knowledge and skill sets typically required for small wind system practitioners and to help ensure safety, quality and consumer acceptance of small wind installations.

Student Learning Outcome:

1. Discuss the history and development of wind energy. 2. List the regions of the globe where wind is a renewable option. 3. Install the components needed for various wind renewable energy sources.

ECONMT 285 DIRECTED STUDY - ELECTRICAL CONSTRUCTION AND MAINTENANCE (2)

Lecture: 2 hour(s)

This course allows students to pursue a directed study in Electrical Construction & Maintenance on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in Electrical Construction & Maintenance.

ECONMT 285L DIRECTED STUDY, ELECTRICAL CONSTRUCTION AND MAINTENANCE (LAB) (2)

Lab: 6 hour(s)

This course allows students to pursue a directed study in Electrical Construction & Maintenance on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will design and construct a lab project based on a topic in Electrical Construction & Maintenance.

ECONMT 385 DIRECTED STUDY - ELECTRICAL CONSTRUCTION AND MAINTENANCE (3)

Lecture: 3 hour(s)

This course allows students to pursue a directed study in Electrical Construction & Maintenance on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in Electrical Construction & Maintenance.

ECONMT 385L DIRECTED STUDY,ELECTRICAL CONSTRUCTION AND MAINTENANCE (LAB) (3)

Lab: 9 hour(s)

This course allows students to pursue a directed study in Electrical Construction & Maintenance on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will design and construct a lab project based on a topic in Electrical Construction & Maintenance.

ECONMT 941 COOPERATIVE EDUCATION -ELECTRICAL CONSTRUCTION & MAINTENANCE (4)

Lecture: 4 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

ELECTRICAL LINEMAN - APPRENTIC

ELECLNM 701A ELECTRICAL LINEMAN APPRENTICE RELATED TRAINING IA (3)

Lecture: 2 hour(s); Lab: 2 hour(s)

Module 1A; Instruction is given in the generation of electricity; hydro, steam, wind, the elements of electricity, static, magnetism, electric circuit, transmission lines and cables, sub-transmission lines and cables, distribution lines and cables. Students receive training in pole climbing; safe practices, installation of cross arms, insulator guys, hanging of transformer, stringing of lines, pulling cables, pole top rescue and vault rescue. Safety and first aid are emphasized.

Student Learning Outcome:

1. Discuss the history and development of the electric utility industry. 2. Identify specific industry tools and materials and discuss their usage. 3. Select and demonstrate proper electric utility PPE equipment.

ELECLNM 701B ELECTRICAL LINEMAN APPRENTICE RELATED TRAINING IB (3)

Lecture: 2 hour(s); Lab: 2 hour(s)

This course provides instruction in the generation of electricity; hydro, steam, wind, the elements of electricity, static, magnetism, electric circuit, transmission lines and cables, sub-transmission lines and cables, distribution lines and cables. Students receive training in pole climbing; safe practices, installation of cross arms, insulator guys, hanging of transformer, stringing of lines, pulling cables, pole top rescue and vault rescue. Safety and first aid are emphasized.

Student Learning Outcome:

1. Discuss the history and development of the electric utility industry. 2. Identify specific industry tools and materials and discuss their usage. 3. Select and demonstrate proper electric utility PPE equipment.

ELECLNM 702A ELECTRICAL LINEMAN APPRENTICE RELATED TRAINING IIA (3)

Lecture: 2 hour(s); Lab: 2 hour(s)

Instruction is given in electricity including; electrical math, series and parallel circuits, motors, induced emf, mutual and self-induction, direct current, alternating current, transformers connections, transformer fusing, capacitors, voltage regulators, definitions, core loses, polarity, markings, oil insulation, cooling practices, loading and testing, and oil circuit breakers. Street light practices, circuits, utilitarian systems, lamps, sodium and mercury lights, glassware, refractors, control of streetlights, map reading, forms, test, regulators and safety in maintenance are all emphasized. In electricity including; electrical math, transformers, street light practices, map reading, and safety in maintenance.

Student Learning Outcome:

1. Applied calculations of measurement involved with electrical installations such as; transformer calculations, lighting loads in series, and parallel. 2. Demonstrate map reading. 3. Identify safety in general utility maintenance.

ELECLNM 702B ELECTRICAL LINEMAN APPRENTICE RELATED TRAINING IIB (3)

Lecture: 2 hour(s); Lab: 2 hour(s)

Instruction is given in electricity including; electrical math, series and parallel circuits, motors, induced emf, mutual and self-induction, direct current, alternating current, transformers connections, transformer fusing, capacitors, voltage regulators, definitions, core loses, polarity, markings, oil insulation, cooling practices, loading and testing, and oil circuit breakers. Street light practices, circuits, utilitarian systems, lamps, sodium and mercury lights, glassware, refractors, control of streetlights, map reading, forms, test, regulators and safety in maintenance are all emphasized.

Student Learning Outcome:

1. Applied calculations of measurement involved with electrical installations such as; transformer calculations, lighting loads in series, and parallel. 2. Demonstrate map reading. 3. Identify safety in general utility maintenance.

ELECLNM 703A ELECTRICAL LINEMAN APPRENTICE RELATED TRAINING IIIA (3)

Lecture: 2 hour(s); Lab: 2 hour(s)

Instruction is given in the stringent use of state law G.0.095, safety orders, OSHA requirements, overhead construction standards, overhead jobs, joint pole agreement of California, and electrical service requirements. Course reviews conductor sizes, splices, stringing, dead-ending, guying, rigging, transformer fusing, circulation current, trouble shooting, street lighting and public relations, live-line maintenance using live-line tools, safety and first aid.

Student Learning Outcome:

1. Restate law G.0.095, safety orders, and OSHA requirements. 2. Discuss the joint pole agreement of California. 3. State electrical service requirements.

ELECLNM 703B ELECTRICAL LINEMAN APPRENTICE RELATED TRAINING IIIB (3)

Lecture: 2 hour(s); Lab: 2 hour(s)

Instruction is given in the stringent use of state law G.0.095, safety orders, OSHA requirements, overhead construction standards, overhead jobs, joint pole agreement of California, and electrical service requirements. Course reviews conductor sizes, splices, stringing, dead-ending, guying, rigging, transformer fusing, circulation current, trouble shooting, street lighting and public relations, live-line maintenance using live-line tools, safety and first aid.

Student Learning Outcome:

1. Restate law G.0.095, safety orders, and OSHA requirements. 2. Discuss the joint pole agreement of California. 3. State electrical service requirements.

ELECLNM 704A ELECTRICAL LINEMAN - APPRENTICE CABLE SPLICER MODULE A (3)

Lecture: 2 hour(s); Lab: 2 hour(s)

This course provides instruction in the application of rigging principles and practices on underground installations. In addition, the installation of equipment, splicing theory, distribution circuits, oil circuit breakers, transformer characteristics, and connections will also be covered. State law requirements, safety and street lighting electrical systems will be introduced in this course.

Student Learning Outcome:

1. Discuss the history and development of the underground electric utility industry. 2. Identify specific underground industry tools and materials and discuss their usage. 3. Select and demonstrate proper underground electric utility PPE equipment.

ELECLNM 704B ELECTRICAL LINEMAN - APPRENTICE CABLE SPLICER MODULE B (3)

Lecture: 2 hour(s); Lab: 2 hour(s)

This course provides instruction in the application of rigging principles and practices on underground installations. In addition, the installation of equipment, splicing theory, distribution circuits, oil circuit breakers, transformer characteristics, and connections will also be covered. State law requirements, safety and street lighting electrical systems will be introduced in this course.

Student Learning Outcome:

1. Discuss the history and development of the underground electric utility industry. 2. Identify specific underground industry tools and materials and discuss their usage. 3. Select and demonstrate proper underground electric utility PPE equipment.

ELECLNM 709 ELECT CRAFT HELPER, ELECT LINEMAN APPR RELATED TRAINING IV (4)

Lecture: 4 hour(s)

This course is designed as entry level preparation for a student interested in careers in the electrical power industry. This introductory course covers the basic fundamentals of planning, installation and maintenance of high and low voltage electrical systems. Basic functions of generation, both hydro and steam are covered. The transmission and distribution of electrical power will be reviewed. Fundamentals of electricity, identification, function, and operation of components will be surveyed. Ohms law, safety, ropes, knots, rigging, and tools required in the trade will be reviewed. Civil service exam assistance will also be covered.

Student Learning Outcome:

1. Discuss industry history & development of the grid. 2. List utility industry terms and definitions. 3. State electrical utility industry careers opportunities and requirements.

ELECTRONICS

ELECTRN 002 INTRODUCTION TO ELECTRONICS (3) CSU

Lecture: 3 hour(s)

An overview of the field of applied electronics and its employment opportunities. Introduction to components, nomenclature and symbols. A familiarization of equipment, specifications and physical units. This is a broad introductory course for all students who need a survey of electronic applications and principles. Electronics as applied both historically and in today's society is investigated. Typical topics included are a study of the natural forces that make electronics possible, present applications of electronics to the fields of medicine, transportation, science, communications, industry, and the start of the digital invasion into our homes and work.

Student Learning Outcome:

Students will learn the basic electronics quantities and their application in analyzing DC and AC circuits.

ELECTRONICS TECHNOLOGY

ETNTLGY 150 SOLDERING SURFACE MOUNT TECHNOLOGY (3)

Lecture: 2 hour(s); Lab: 3 hour(s)

This course provides an introduction of through hole soldering technology as well as principles of surface mount rework, show the range of specific equipment used in that process and provide a framework for learning about various rework methods. Recommended procedures for removal and replacement of surface mount chip components are also covered.

Student Learning Outcome:

Students will be able to solder and de-solder through-hole and surface mount components.

ETNTLGY 151 DC THEORY AND CIRCUIT FUNDAMENTALS (3)

Lecture: 3 hour(s)

Instruction is given in basic electrical concepts, electron theory, Ohm's Law, Kirchoffs Laws, series circuits, Parallel circuits, combination circuits, principles of magnetism; and the care, use, and construction of basic meters for voltage, current, and resistance measurements. Problems illustrating accuracy necessary in measurements are given.

Student Learning Outcome:

Students will be able to analyze series, parallel, series-parallel, thevenin and Norton circuits.

ETNTLGY 152 DC THEORY AND CIRCUIT FUNDAMENTALS LAB (2) CSU

Lab: 6 hour(s)
Corequisite: Electronics Technology 151;

Instruction is given in constructing basic electrical circuits. Series, parallel and series/parallel circuits are constructed and troubleshot to understand the concept of troubleshooting techniques. Problems illustrating accuracy necessary in measurements are given.

Student Learning Outcome:

Students will use the equipment such as Digital Multimeter (DMM) and DC power supply to measure and troubleshoot various DC circuits.

ETNTLGY 153 APPLIED DC CALCULATIONS (1)

Lecture: 1 hour
Corequisite: Electronics Technology 151;

This course offers a review on basic arithmetic including addition, subtraction, multiplication, division, fractions, decimals, square roots, signed numbers, powers of ten, an introduction to algebra, and problems solving Ohm's Law and power calculations. Instruction is also provided in algebra, calculators, logarithms, graphs, phasers, and basic trigonometry as used in electronics.

Student Learning Outcome:

Students will be able to apply mathematical problem-solving models to DC circuits.

ETNTLGY 154 AC THEORY AND CIRCUIT FUNDAMENTALS (3) CSU

Lecture: 3 hour(s)
Prerequisite: Electronics Technology 151;

This course offers the Theory of AC Electronics as it applies to basic and advanced circuits found in analog electronics. The course prepares the student for more advanced studies in Communications and Digital Electronics. Subjects covered include Capacitors, Magnetic Circuits, Inductors, Sinusoidal Alternating Waveforms, Basic Elements and Phasers, Series and Parallel AC Circuits, Series-Parallel AC Networks, Methods of Analysis, Network Theorems (AC), Power (AC), Resonance, Filters and Bode Plots, Pulse waveforms, and an introduction to System Analysis. Basic algebra and trigonometry will be used as the tools for understanding the AC circuit as it applies to electronics systems.

Student Learning Outcome:

Students will experiment with alternating current, inductance and capacitance, time constants and filters in analyzing and troubleshooting AC circuits.

ETNTLGY 155 AC THEORY AND CIRCUIT FUNDAMENTALS LAB (2) CSU

Lab: 6 hour(s)
Prerequisite: Electronics Technology 152;

An overview of the field in AC electronics that measures and analyzes the parameters and characteristics of AC circuits: The students studies their applications in electronic systems and becomes familiar with the various components used to make a viable circuit. In class, the students will also learn to construct and troubleshoot AC circuits.

Student Learning Outcome:

Students will develop and improve their abilities to follow instructions, make accurate measurements and calculations for different AC circuits.

ETNTLGY 156 APPLIED AC CALCULATIONS (1)

Lecture: 1 hour
Prerequisite: Electronics Technology 153;

At the completion of this course, students will be able to perform mathematical functions used in AC circuit analysis. The topics include solving various algebraic equations, fractional equations, simultaneous equations, trigonometric functions, vector algebra, and logarithms. These topics will be covered with emphasis on calculations involving series, parallel, and series-parallel AC circuits.

Student Learning Outcome:

Students will be able to apply mathematical problem-solving models to Ac circuits.

ETNTLGY 157 SEMICONDUCTORS DEVICES AND APPLICATIONS (3) CSU

Lecture: 3 hour(s)
Prerequisite: Electronics Technology 154;

This course imparts knowledge of semiconductors, electron devices including diodes, transistors, and their application in electronic circuits such as Amplifiers, Switches, Power Supplies, Oscillators, and Integrated Circuits.

Student Learning Outcome:

Students will analyze and troubleshoot semiconductor circuits.

ETNTLGY 158 SEMICONDUCTORS DEVICES AND ELECTRONICS LABORATORY (3) CSU

Lab: 9 hour(s)
Prerequisite: Electronics Technology 155;

This is a semiconductor devices laboratory course. It includes lab exercises using semiconductors devices including diodes, transistors, and their application in electronic circuits such as Amplifiers, Switches, Power Supplies, Oscillators, and Integrated Circuits.

Student Learning Outcome:

Students will build electronic circuits. Will test and troubleshoot successfully. 12 semiconductor devices circuits will be constructed.

ETNTLGY 159 DIGITAL CIRCUITS AND APPLICATIONS (3) CSU

Lecture: 3 hour(s)
Prerequisite: Electronics Technology 154;

This is an introductory course in digital electronics and applications. The course covers the number systems, including the decimal, binary, octal, and hexadecimal number systems. The topics covered include the characteristics of TTL and CMOS logic families, combinational logic circuits, minimizing logic circuits, minimizing logic circuits using Boolean Operations and Karnaugh maps, encoders and decoders, sequential logic devices such as flip-flops, counters, shift registers, and memory devices.

Student Learning Outcome:

Students will analyze and troubleshoot combinational and sequential digital circuits.

ETNTLGY 160 DIGITAL CIRCUITS AND APPLICATIONS LAB (2) CSU

Lab: 6 hour(s)
Prerequisite: Electronics Technology 154;

This course is designed to provide students with the fundamentals of digital circuits and their applications. Lab activities include the characteristics of TTL and CMOS logic families, combinational logic, minimizing logic circuits using Boolean operations and Karnaugh maps, encoders and decoders, sequential logic devices such as flip-flops, counters, shift registers, and memory devices.

Student Learning Outcome:

Students will construct, analyze, and troubleshoot combinational and sequential digital circuits.

ETNTLGY 161 F.C.C. RADIO OPERATOR LICENSE (3)

Lecture: 3 hour(s)

This course provides information required by the Electronics Technician to aid in passing the F.C.C. general radiotelephone license examination. The F.C.C. rules, regulations, and theory areas are explained and sample F.C.C. type tests are given. Marine and aeronautical rules and regulations are also studied and are necessary for passing the general radiotelephone examination.

Student Learning Outcome:

The student will be able to pass Element 3 FCC Exam.

ETNTLGY 162 INTRODUCTION TO ELECTRONICS CSU COMMUNICATIONS (3)

Lecture: 3 hour(s)

This course covers circuit analysis of several complete AM/FM systems. The installations of C Band, K/U Band, and DSS satellite systems, the theory of cordless phones, microwave receivers/transmitters, cell phones, and TV video are covered.

Student Learning Outcome:

Students will learn the principles of Electronics Communications, Amplitude Modulation, Frequency Modulation, Digital Television, Cellular Telephones, and Decibels.

ETNTLGY 163 INTRODUCTION TO ELECTRONICS COMMUNICATIONS LAB (3)

Lab: 9 hour(s)
Corequisite: Electronics Technology 158;

This course allows students direct laboratory application of the radio principles and techniques acquired in the lecture sessions. Laboratory experiments will include the construction and analysis of circuits, AM modulation, AM detection, FM modulation, frequency multiplication, limiting, FM discrimination, and the construction, testing and alignment complete AM super-heterodyne radio receiver. Microprocessor, digital and solid state troubleshooting techniques are analyzed and performed, as are system level to component level troubleshooting and repair. Basic antenna measurements, troubleshooting and repairs are made.

Student Learning Outcome:

The students will demonstrate the skills necessary to build an AM/FM Radio kit.

ETNTLGY 252 NETWORK CABLING SPECIALIST (3)

Lecture: 2 hour(s); Lab: 3 hour(s)

This course is designed to provide students with the basic skills used in network technology. The successful completion of the course leads to a certificate in network cabling. Students will become familiar with EIA/TIA 568 Standards (Electronics Industry Alliance/ Telecommunications Association). Students will learn various cables used in network cabling industry such as CAT 5, CAT5E, and coaxial cables and correctly terminate them.

Student Learning Outcome:

Students will be able to construct cables and make terminations used in network cabling.

ETNTLGY 253 FIBER OPTICS (3)

Lecture: 2 hour(s); Lab: 3 hour(s)

This course is designed to provide students with the knowledge and skills necessary to become entry-level technicians in the network cabling industry with a concentration in fiber optics. Successful completion of this course leads to industry certification.

Student Learning Outcome:

Students will be able to construct and test fiber optic cables.

ETNTLGY 254 COMPUTER APPLICATIONS FOR ELECTRONICS TECHNOLOGY (3)

Lecture: 2 hour(s); Lab: 3 hour(s)

This course introduces students to computer hardware, software related technology and their uses impact on society and education; hands-on experience with applications of software, such as Excel, Word, Power Point with an emphasis on electronics applications software such as Electronic Work Bench and VISIO.

Student Learning Outcome:

Students will be able to utilize computer software to effectively organize and communicate their work.

ETNTLGY 255 COMPUTER-BASED ELECTRONICS I (1)

Lab: 3 hour(s)

This course introduces the students to Electronics Workbench (MultiSim), Electronics Technology Computer-Aided Instruction (ETCAI), and MultiSim Computer-Based Training (CBT) Software Programs. This course is designed to enable students to construct and analyze circuits using Electronics Workbench. It also enables students to increase their knowledge of electronics, using CAI.

Student Learning Outcome:

Students will be able to utilize the Multisim software to construct and analyze different circuits.

ETNTLGY 941 COOPERATIVE EDUCATION - ELECTRONICS TECHNOLOGY (4)

Lecture: 4 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

ENGINEERING GRAPHICS & DESIGN

EGD TEK 101 ENGINEERING GRAPHICS (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)
Advisory: Math 240

This introductory course covers the fundamentals of technical drawing and an introduction to computer-aided design (CAD) with a focus on mechanical applications. Topics include the development of visualization and technical sketching skills in conjunction with orthographic projections; dimensioning and tolerancing practices, including an introduction to geometric dimensioning and tolerancing (GD&T); and descriptive geometry with applications to engineering. Lab work includes hand sketching and the use of two- and three-dimensional CAD systems. Students use one or more CAD software packages to draft and model various objects. The use of CAD software is an integral part of the course.

Student Learning Outcome:

1. Students will create design drawings using established industry standards and the principles of orthographic projection. 2. Students will reverse engineer using CAD software.

ENGINEERING, GENERAL

ENG GEN 101 INTRODUCTION TO SCIENCE, ENGINEERING AND TECHNOLOGY (2) UC: CSU

Lecture: 1 hour; Lab: 2 hour(s)

Students learn about the engineering method and strategies for academic and career success in engineering. Students are introduced to mechanical, civil, electrical, and computer systems engineering through project work. The vast range disciplines and opportunities in engineering are presented. Students are allowed to work collaboratively on some course assignments and in-class design projects. Only basic mathematics skills are required.

Student Learning Outcome:

1. Student will identify and distinguish between different fields of engineering by researching information about them and further select one of them as a career. 2. Student will identify effective methods to study engineering and demonstrate it in a team setting. 3. Student will demonstrate the knowledge of preparing an educational plan. 4. Students will be able to discuss the importance of ethics in engineering and show awareness of professional codes of conduct. 5. Students will employ campus resources including: library, career center, learning center, counseling and financial aid to succeed in their educational road map in an engineering transfer program.

ENG GEN 122 PROGRAMMING AND PROBLEM-SOLVING IN MATLAB (3) UC:CSU

Lecture: 2 hour(s); Lab: 3 hour(s)
Prerequisite: Math 265

This course utilizes the MATLAB environment to provide students with a working knowledge of computer-based problem-solving methods relevant to science and engineering. It introduces the fundamentals of procedural and object-oriented programming, numerical analysis, and data structures. Examples and assignments in the course are drawn from practical applications in engineering, physics, and mathematics.

Student Learning Outcome:

1. Student will create, test and debug sequential MATLAB programs, as well as programs that use object-oriented techniques, in order to achieve computational objectives. 2. Student will apply numeric techniques and computer simulations to analyze and solve engineering-related problems. 3. Student will use MATLAB effectively to analyze and visualize data.

ENG GEN 131 STATICS (3) UC: CSU

Lecture: 2 hour(s); Lab: 3 hour(s)
Prerequisite: Math 265, PHYSICS 001

Course covers vector analysis in one, two and three dimensions. Solution of problems involving forces and moments applied to bodies in static equilibrium. Determine centroids, areas, volumes and moments of inertia. Course includes analysis of forces acting on trusses, frames, and machines. Analytic and graphic solutions are used.

Student Learning Outcome:

1. Student will setup a Free Body Diagram (FBD) and show all external forces, reactions, constraints and moments. 2. Student will learn how to apply the equilibrium conditions and solve statically determinant problems. 3. Student will be to calculate and show Load (Force), Shear and Moments diagrams.

ENG GEN 151 MATERIALS OF ENGINEERING (3) UC: CSU

Lecture: 3 hour(s)
Prerequisite: Chemistry 101 & Physics 1

This course is an introduction to materials science and engineering and different types of materials used in engineering design, emphasizing the relationships between structures, properties, and processing. Topics include: Atomic structure and bonding, atomic and ionic arrangements and imperfections, crystalline structures, metals, polymers, ceramics, composites including diffusion or atom and ion movements in materials, and mechanical properties and fracture including strain hardening and annealing. An illustration of the materials' fundamental differences and their application in engineering is also covered.

Student Learning Outcome:

1. Student will be able to classify materials according to structure and be able to comment on how the properties of a particular class of materials are related to their atomic, micro and macro structure. 2. Student will understand how materials behave under load and to understand the technical nomenclature used for describing the empirical behavior of materials under load. 3. Student will use published materials data to choose the best material for an application and to make estimates of component size. 4. Student will understand the different forming and processing techniques that are commonly used in industry in terms of their effect on the structure of the material and the resulting influence on physical properties.

ENG GEN 220 ELECTRICAL CIRCUITS I (4) UC: CSU

Lecture: 3 hour(s); Lab: 3 hour(s)
Prerequisite: Math 267, PHYSICS 003; Corequisite: Math 275

This course covers electric circuit analysis in time and frequency domains, transient, and steady state solutions. Topics include linear circuit analysis techniques, Kirchhoff's Laws, Network Theorems, mesh and nodal analysis, OP amps and amplifiers, Thevenin/Norton equivalents circuits, natural-forced-complete response of RLC circuits, AC circuits, phasors, three phase power, and frequency response and resonance. The laboratory includes experimental verification of the laws of AC and DC circuits, Kirchhoff's laws, and Thevenin's theorem using instruments such as multimeter, oscilloscopes, and signal generators.

Student Learning Outcome:

1. Student will analyze DC & AC circuits to find current, voltage, resistance, power, and/or energy. 2. Student will draw and label circuit diagrams and show thorough mathematical solutions. 3. Student will apply and solve problems with different circuit analysis techniques and demonstrate a process for selecting an appropriate technique for a given problem.

ENG GEN 241 STRENGTH OF MATERIALS (3) UC:CSU

Lecture: 2 hour(s); Lab: 3 hour(s)
Prerequisite: ENG GEN 131

Plane stress-strain, axial, torsional, bending and shear stresses are studied, including combined loads, Mohr's Circle, principal stresses and strains, and pressure vessels. Generalized Hooke's Law, material properties, allowable stresses, factor of safety, statically indeterminate members, shear and moment diagrams; moment-area, and slope by double integration, singularity functions, superposition, moment-area, and Castigliano methods are also studied. Topics include thermal expansion, indeterminate forms and column buckling.

Student Learning Outcome:

1. Student will be able to understand the different types of stresses including normal, torsion, bending and shearing. 2. Student will be able to calculate and show Load (Force), Shear and Moments diagrams. 3. Student will be able to calculate internal stresses and strains of statically indeterminate structural problems given external loading. Methods employed consider derived bending, torsion, shear, shear center, and axial formulas, traditional equilibrium and compatibility equations, integration of differential equations, and energy. 4. Student will be able to calculate structural failure loads. Methods employed include interaction formulas for stress and strain, buckling, and deflection considerations. 5. Student will be able to solve and assess Engineering Strength of Materials literature to solving Strength of Materials problems.

ENGINEER-OPERATION/ MAINTENANCE

OPMAINT 228 STEAM PLANT OPERATION I (6)

Lecture: 6 hour(s)

Related engineering information concerning high pressure steam plants in office buildings and industrial establishments are studied in this course. Emphasis is given to steam power plant, use of steam tables, types of boilers, construction of boilers, boiler accessories, settings for combustion equipment and heating surfaces; operation of steam boilers and the combustion of fuels.

Student Learning Outcome:

SLO #1 Gather information on the various components of a boiler system. SLO #2 Critically analyze and then organize information on the application of boiler devices and or systems.

OPMAINT 229 STEAM PLANT OPERATION II (6)

Lecture: 6 hour(s)

Instruction is given in steam engines, valve operating mechanisms and governors, and operating characteristics of steam engines. Course covers steam turbines, pumps, and auxiliary power plant equipment, steam plant efficiencies, boiler water treatment, troubleshooting, and power transmission. Completion of this second course prepares trainee to take Los Angeles City examination for steam engineer's license.

Student Learning Outcome:

SLO #1 Gather information on the various components of a boiler system. SLO #2 Critically analyze and then organize information on the application of boiler devices and or systems.

ENGINEER-OPR/ MAINTENANCE - APPRENTICE

OPMA AP 100 O.S.H.A. BASED SAFETY STANDARDS: CONSTRUCTION & INDUSTRY (2)

Lecture: 2 hour(s)

This course provides instruction on industry safety and health rules as it applies to workers and employers within the construction industry. Topics such as fall protection, lock out tag out procedures, PPE, excavations, etc. are covered. Participants that meet the required hourly attendance and successfully pass the final exam will be eligible to receive their OSHA (30 hr) safety-training certificate.

Student Learning Outcome:

1. Recognize appropriate training requirements and training methods. 2. Define OSHA specific construction terms such as; competent person, construction work, confined space, working space, general duty clause. 3. Select situational appropriate PPE.

OPMA AP 703 ENERGY MANAGEMENT (4)

Lecture: 4 hour(s)

The computer's use in the HVACR industry and the application of energy management technology in the improvement of energy efficiencies. The goal is to prepare the maintenance engineer to use of modern technology, including computers in the continuing quest for improved energy management.

Student Learning Outcome:

SLO #1 Gather information on the various components of an energy management system. SLO #2 Critically analyze and then organize information on the application of an energy management system. SLO #3 Properly apply the English language to write an explanatory paper about rational for using various energy management systems or practices. Relates to OPMA AP Program SLO: #3: Work independently & interdependently to accomplish a shared professional outcome. Relates to CDM Department PLO's: #1. Locating Information. #2. Reading for information. Relates To College Core SLOs: A: Critical Thinking D: Communications

OPMA AP 704 ELECTRIC MOTOR CONTROL I FOR APPRENTICES (2)

Lecture: 1 hour; Lab: 3 hour(s)

This course provides instruction in basic motor control fundamentals, including the basic function of controlling devices, review of basic motors, selection of motors and definitions. The class will discuss definitions for controller components and symbols, familiarization of N.E.M.A. standards and review of one-line, wiring and schematic diagrams. The class will also introduce the use of digital controllers for use in industry.

Student Learning Outcome:

SLO #1 Gather information on the various components of a motor control system. SLO #2 Critically analyze and then organize information on the application of motor control systems. SLO #3 Properly install various motor control systems. Relates to OPMA AP Program SLO: #3: Work independently & interdependently to accomplish a shared professional outcome. Relates to CDM Department PLO's: #1. Locating Information. #2. Reading for information. #4. Working safely with tools. Relates To College Core SLOs: A: Critical Thinking D: Communications

OPMA AP 720 HVACR I (2)

Lecture: 1 hour; Lab: 3 hour(s)

An introduction to the Principles and practices for the installation and maintenance of residential, commercial, and industrial heating, air conditioning, ventilation, and refrigeration systems. Equipment selection, maintenance, and safety will be covered.

Student Learning Outcome:

SLO #1 Gather information on the various components of a HVACR system. SLO #2 Critically analyze and then organize information on the application of HVACR equipment. SLO #3 Properly install various HVARC systems. Relates to OPMA AP Program SLO: #3: Work independently & interdependently to accomplish a shared professional outcome. Relates to CDM Department PLO's: #1. Locating Information. #2. Reading for information. #4. Working safely with tools. Relates To College Core SLOs: A: Critical Thinking D: Communications

OPMA AP 724 FUNDAMENTALS OF ELECTRICITY (2)

Lecture: 1 hour; Lab: 3 hour(s)

This course covers the basic principles and practices of A/C & D/C electricity. Analyzing series, parallel and complex circuits, using Ohm's law, the power equation, Kirchoff's laws, and other applicable laws and equations.

Student Learning Outcome:

SLO #1 Gather information on the various components of a circuit analysis. SLO #2 Critically analyze and then organize information on the application of a circuit analysis. SLO #3 Construct various electrical circuits. Relates to OPMA AP Program SLO: #3: Work independently & interdependently to accomplish a shared professional outcome. Relates to CDM Department PLO's: #1. Locating Information. #2. Reading for information. #4 Working safely with tools. Relates To College Core SLOs: A: Critical Thinking D: Communications

OPMA AP 727 INDUSTRIAL MECHANICS FOR APPRENTICES (2)

Lecture: 1 hour; Lab: 3 hour(s)

Principles and practices for application of electro mechanics in environmental and manufacturing process control. The course will cover the use of devices and equipment in the control of industrial production and the maintenance of a healthy and comfortable environment in buildings.

Student Learning Outcome:

SLO #1 Gather information on the various components of a mechanical system installation. SLO #2 Critically analyze and then organize information on the application of a mechanical system installation. SLO #3 Construct or troubleshoot various mechanical systems. Relates to OPMA AP Program SLO: #3: Work independently & interdependently to accomplish a shared professional outcome. Relates to CDM Department PLO's: #1. Locating Information. #2. Reading for information. #4 Working safely with tools. Relates To College Core SLOs: A: Critical Thinking D: Communications

OPMA AP 739 LOCKSMITHING AND SECURITY SYSTEMS FOR APPRENTICESHIP (4)

Lecture: 4 hour(s)

This course is for the beginner. It is designed to teach a facilities maintenance worker how to perform in house locksmithing in a realistic and practical way. Topics will include; preventative maintenance, basic locksmithing tools, keys and locking devices, parts of a key, master key systems, installing basic lock sets, 'Warded & Leer' tumbler, side bar wafer locks, electromagnetic locks, electric strikes and key coding machines.

Student Learning Outcome:

SLO #1 Gather information on the various components of a lock system. SLO #2 Critically analyze and then organize information on the application of locking systems. Relates to OPMA AP Program SLO: #3: Work independently & interdependently to accomplish a shared professional outcome. Relates to CDM Department PLO's: #1. Locating Information. #2. Reading for information. Relates To College Core SLOs: A: Critical Thinking D: Communications

OPMA AP 740 TENANT RELATIONS AND REPORTS FOR APPRENTICES (4)

Lecture: 4 hour(s)

The techniques used in maintaining wholesome and mutually beneficial relations with tenants and others is the primary purpose of this course. The need to understand the needs of all persons associated with a building is stressed. Instruction in the use of systems to maintain records and deliver timely and accurate reports is provided.

Student Learning Outcome:

SLO #1 Gather information on the various of good tenant relations. SLO #2 Critically analyze and then organize information on tenant relations. Relates to OPMA AP Program SLO: #3: Work independently & interdependently to accomplish a shared professional outcome. Relates to CDM Department PLO's: #1. Locating Information. #2. Reading for information. Relates To College Core SLOs: A: Critical Thinking D: Communications

OPMA AP 744 HVACR CONTROL SYSTEMS (2)

Lecture: 1 hour; Lab: 3 hour(s)

This course provides an introduction to the principles and practices for the installation and maintenance of residential, commercial, and industrial heating, air conditioning, ventilation, and refrigeration control systems. System control equipment selection, maintenance, and safety will be covered.

Student Learning Outcome:

SLO #1 Gather information on the various components of a HVACR control system. SLO #2 Critically analyze and then organize information on the application of HVACR controls equipment. SLO #3 Properly install various HVARC control systems. Relates to OPMA AP Program SLO: #3: Work independently & interdependently to accomplish a shared professional outcome. Relates to CDM Department PLO's: #1. Locating Information. #2. Reading for information. #4. Working safely with tools. Relates To College Core SLOs: A: Critical Thinking D: Communications

OPMA AP 745 PLUMBING CODE (4)

Lecture: 4 hour(s)

Instruction in plumbing codes and ordinances that affect rough-in work in city and county areas; installation of wastes, vents, clean outs, traps, gas fittings, and gas vents: water pipe requirements.

Student Learning Outcome:

SLO #1 Gather information on the various aspect of the international plumbing code. SLO #2 Critically analyze and then organize information on the application of the international plumbing code. Relates to OPMA AP Program SLO: #3: Work independently & interdependently to accomplish a shared professional outcome. Relates to CDM Department PLO's: #1. Locating Information. #2. Reading for information. Relates To College Core SLOs: A: Critical Thinking D: Communications

OPMA AP 746 MAINTENANCE PLUMBING PRINCIPLES & PRACTICES (2)

Lecture: 1 hour; Lab: 3 hour(s)

The course will provide instruction in plumbing principles and common practices. Theory and hands on application will be applied on various common maintenance plumbing installations and repairs operations.

Student Learning Outcome:

SLO #1 Gather information on the various components of a plumbing system installation. SLO #2 Critically analyze and then organize information on the application of plumbing devices and code for a basic plumbing system installation. SLO #3 Construct or troubleshoot various plumbing system applications. Relates to OPMA AP Program SLO: #1 Locate information #2 Reading for information #3 Work independently & interdependently to accomplish a shared professional outcome. #4 Work Safely with Tools. Relates to CDM Department PLO's: #1. Locating Information. #2. Reading for information. #4 Working safely with tools. Relates To College Core SLOs: A: Critical Thinking D: Communications

OPMA AP 747 ELECTRICAL TROUBLESHOOTING (2)

Lecture: 1 hour; Lab: 3 hour(s)

This course covers the basic principles and practices of electrical equipment and system troubleshooting. Proper use of tools and safety equipment will be covered.

Student Learning Outcome:

SLO Construct and troubleshoot various applications of electrical systems. Relates to OPMA AP Program SLO: #3: Work independently & interdependently to accomplish a shared professional outcome. #4: Work safely with tools. Relates to CDM Department PLO's: #2. Reading for information. #4. Working safely with tools. Relates To College Core SLOs: A: Critical Thinking

OPMA AP 748 ELECTRICAL CODES & ORDINANCES (NEC) (4)

Lecture: 4 hour(s)

This course will introduce students to basic rule for the electrical trade. General codes, wiring methods and fittings, and circuits requirements specified in the various codes and ordinances will be covered.

Student Learning Outcome:

SLO 1. List electrical codes by topic and article. SLO 2. Identify topic specific electrical code requirements such as; service size, circuit protection, branch circuits, and box sizing. SLO 3. Interpret various electrical codes applied to various electrical installation examples.

OPMA AP 749 HVACR II (2)

Lecture: 1 hour; Lab: 3 hour(s)

This course introduces advanced principles and practices for the installation and maintenance of residential, commercial, and industrial heating, air conditioning, ventilation, and refrigeration systems. Equipment selection, maintenance, and safety will be covered.

Student Learning Outcome:

SLO #1 Gather information on the various components of a HVACR system installation. SLO #2 Critically analyze and then organize information on the application of a HVACR system installation. SLO #3 Construct or troubleshoot various HVACR systems. Relates to OPMA AP Program SLO: #3: Work independently & interdependently to accomplish a shared professional outcome. #4: Work safely with tools. Relates to CDM Department PLO's: #4 Working safely with tools. Relates To College Core SLOs: A: Critical Thinking

OPMA AP 750 INDOOR AIR QUALITY (4)

Lecture: 4 hour(s)

This course emphasizes on operation of systems to provide quality air to indoor environments. AQMD requirements and pending regulations are reviewed. Organizing and implementing maintenance programs that include indoor air quality assessment and air balancing HVAC systems are covered.

Student Learning Outcome:

SLO 1. Discuss the health aspects of IAQ. SLO 2. Discuss airflow as it relates to IAQ. SLO 3. Discuss chemicals that can have a negative impact on IAQ.

OPMA AP 751 PRINT READING (4)

Lecture: 4 hour(s)

This course covers instruction in basic blueprint reading including symbols identification. Various drawing types, the information contained, and the primary uses for each type of drawing will be covered.

Student Learning Outcome:

SLO #1 Gather information from various types of blueprints. SLO #2 Critically analyze and then organize information gathered from various types of blueprints and related documentation. Relates to OPMA AP Program SLO: #3: Work independently & interdependently to accomplish a shared professional outcome. Relates to CDM Department PLO's: #1. Locating Information. #2. Reading for information. Relates To College Core SLOs: A: Critical Thinking D: Communications

OPMA AP 753 BOILERS FOR APPRENTICES (4)

Lecture: 4 hour(s)

Related engineering information concerning high pressure steam plants in office buildings and industrial establishments are studied in this course. Emphasis is given to steam power plant, use of steam tables, types of boilers, construction of boilers, boiler accessories, settings for combustion equipment and heating surfaces; operation of steam boilers and the combustion of fuels

Student Learning Outcome:

SLO #1 Gather information on the various components of a boiler system. SLO #2 Critically analyze and then organize information on the application of boiler devices and or systems. Relates to OPMA AP Program SLO: #3: Work independently & interdependently to accomplish a shared professional outcome. Relates to CDM Department PLO's: #1. Locating Information. #2. Reading for information. Relates To College Core SLOs: A: Critical Thinking D: Communications

ENGLISH

ENGLISH 021 ENGLISH FUNDAMENTALS (3) NDA

Lecture: 3 hour(s)
Prerequisite: Placement Exam or Learning Skills 2C or Basic Skills 2CE

This course focuses on the fundamentals of academic reading, writing, and critical thinking. It reinforces basic skills such as the correct use of punctuation, spelling, and sentence structure. Students incorporate these skills, along with sentence combining techniques, to write single paragraph responses progressing to short essays (250-500 words) that have an introduction, body, and conclusion.

Student Learning Outcome:

1. Write a mechanically-sound timed-in class 5-paragraph essay. 2. Write a brief (500-600 word) research paper, demonstrating rudimentary MLA format.

ENGLISH 028 INTERMEDIATE READING AND COMPOSITION (3)

Lecture: 3 hour(s)
Prerequisite: English 21, English 100 or Placement Exam

In this course, students plan, draft, revise, and edit compositions of increasing sophistication and complexity, progressing from multi-paragraph essays to research papers. Writing is based on readings that cover topics that challenge students' thinking and provide an intellectual background for the assignments. Readings, discussion, and writing assignments may focus on fiction, non-fiction, memoirs, and/or poetry. This course prepares students for English 101.

Student Learning Outcome:

Write a well-developed, coherent timed essay. Write a 4-6 page research paper, demonstrating MLA format and citations.

ENGLISH 046 READING AND STUDY IMPROVEMENT (3) NDA

Lecture: 3 hour(s)

Students review reading skills and strategies necessary for college success, including reading for main ideas, determining organizational patterns of details presented, and drawing logical conclusions in paragraphs and short essays. Readings and vocabulary study skills are 9th grade to college level. Students are introduced to more critical reading skills (determining author's purpose, tone, point of view, and intended audience) and literacy concepts (interpreting figures of speech, characterization, plot, setting, and theme).

Student Learning Outcome:

1. Read and retain information from selected texts at a 70% minimum score. 2. Read and analyze college-level texts.

ENGLISH 100 ACCELERATED PREP: COLLEGE WRITING (3) NDA

Lecture: 3 hour(s)
Prerequisite: Placement Exam; Corequisite: Basic Skills 002CE or any Academic Prep Course

This class prepares students for academic reading, critical thinking, and writing expected in career/technical pathways, transfer and associate-degree classes. Students plan, draft, revise, and edit compositions of increasing sophistication and complexity, progressing from paragraphs to multi-paragraphs to research projects. Writing is based primarily on non-fiction college-level readings. With accelerated preparation for the English 101 Challenge Exam, this course prepares students for either English 28 or English 101 based on achievement of identified competencies.

Student Learning Outcome:

English 28 promotion: Write a well-developed, coherent timed essay that demonstrates skills needed for English 28. And Write a 750-word research paper, demonstrating ability to synthesize, analyze and evaluate ideas and sources, showing familiarity with MLA format and citations. English 101 promotion: Write a well-developed, coherent timed essay that demonstrates skills needed for English 101. And write a 1000 to 1500-word research paper, demonstrating ability to synthesize, analyze and evaluate ideas and scholarly sources, showing competency using MLA format and citations.

ENGLISH 101 COLLEGE READING AND COMPOSITION I (3) UC:CSU

Lecture: 3 hour(s)
Prerequisite: English 28 or 100 or ESL 8

In English 101, students extend their knowledge of the principles and structure of academic writing beyond the level of English 28 through the practice of writing essays and the analysis of non-fiction and select short and full-length fiction. The course includes an introduction to persuasive discourse, research skills, critical reading and thinking, and argumentation. Various compositions and extensive research assignments are required. English 101 fulfills the writing requirement for the Associate of Arts and Sciences degree and fulfills the transfer requirement to a four-year college.

Student Learning Outcome:

1. Write a well-developed, coherent and unified timed essay that demonstrates interpretive, critical thinking, and analytical skills based on a written text. 2. Write a research paper (1250 to 1750 words of text) demonstrating critical thinking and analytical skills, and showing inclusion of credible sources and mastery of recognized documentation style.

ENGLISH 102 COLLEGE READING AND COMPOSITION II (3) UC:CSU

Lecture: 3 hour(s)
Prerequisite: English 101;

This course develops critical thinking, reading, and writing skills beyond the level achieved in English 101. It emphasizes logical reasoning, analysis, and strategies of argumentation using literature and theories of literary criticism. Evaluations are made of texts that reveal the multicultural/global aspects of society, which include traditional and contemporary forms in fiction, poetry, essays, and drama.

Student Learning Outcome:

Analyze a literary work that employs themes and theories, using MLA citation, emphasizing student interpretation not synthesis of sources. Write an in-class essay.

ENGLISH 103 COMPOSITION AND CRITICAL THINKING (3) UC:CSU

Lecture: 3 hour(s)
Prerequisite: English 101

This course is designed to help students clarify and refine their thinking and reasoning processes, allowing them to more effectively solve problems and analyze complex issues. Students will develop skills in critical thinking, reading, and writing, which will help them succeed in their other academic coursework, regardless of discipline. Writing assignments will emphasize critical analysis and argumentation, and readings will reflect diverse points of view and cultures.

Student Learning Outcome:

Students will be able to research, identify, and incorporate credible sources and compose argumentative essays and research papers using accepted documentation formats. Students will be able to interpret, analyze, and compose a well-developed argumentative essay, using appropriate appeals.

ENGLISH 127 CREATIVE WRITING (3) CSU

Lecture: 3 hour(s)
Prerequisite: English 101

Introductory workshop offers writers accessible, hands-on exercises in crafting poetry, personal narratives, short stories, and screenplays. Content includes analysis of select prose, poetry and basic vocabulary related to structure, form, genre and style, with special focus on in-class peer critiques and revision as an integral component of the writing process. Workshop culminates in the delivery of a 40-50 page Writer's Portfolio containing original writings students have created and revised during the semester.

Student Learning Outcome:

1. Analyze and deconstruct the varied genres and techniques that exemplify creative writing. 2. Compose a variety original writings that reflect creative modes. 3. Interpret, critique and (help to) improve writings of fellow students.

ENGLISH 203 WORLD LITERATURE I (3) UC:CSU

Lecture: 3 hour(s)
Prerequisite: English 101;

This course surveys world literature in translation, including representative selections from Asian, Greek, and Latin literature, and European masterpieces of the Middle Ages and Renaissance, and the Bible.

Student Learning Outcome:

1. Analyze a selection of world literature in its literary significance, cultural and historical context. 2. Discuss literary works as they relate to their political and social contexts.

ENGLISH 205 ENGLISH LITERATURE I (3) UC:CSU

Lecture: 3 hour(s)
Prerequisite: English 101; Advisory: English 102;

This course is a chronological survey of the English language, literary forms, and ideas from the Anglo-Saxon period through the eighteenth century (Old English to the Neoclassical period), with special attention to Chaucer, Spenser, Shakespeare, Milton, Dryden, Pope, Swift, and Johnson as representatives of their respective periods. Extensive reading and discussion of works. Strong writing component and emphasis on textual analysis. Examination of the relationship between historical events and literary works.

Student Learning Outcome:

1. Student will demonstrate familiarity with important authors, works, genres, and themes of the period 2. Student will analyze and interpret themes found in the literature and intellectual movements of the period 3. Student will demonstrate understanding of an appropriate academic discourse and the conventions of critical literary analysis 4. Student will relate the literary works to their historical, philosophical, social, political and/or aesthetic contexts

ENGLISH 206 ENGLISH LITERATURE II (3) UC:CSU

Lecture: 3 hour(s)
Prerequisite: English 101;

Course will consist of a chronological survey of major authors and texts of British literature from the Romantic period, the Victorian Age, The Twentieth Century, and after. There is extensive reading and discussion of works as well as a strong writing component and emphasis on textual analysis, including examination of the relationship between historical events and literary works.

Student Learning Outcome:

1. Demonstrate familiarity with important authors, works, genres, and themes of the period; and analyze themes found in the literature and intellectual movements of the period 2. Relate the literary works to their historical, philosophical, social, political and/or aesthetic contexts

ENGLISH 207 AMERICAN LITERATURE I (3) UC:CSU

Lecture: 3 hour(s)
Prerequisite: English 101;

This course surveys American literature from 1608 to the Civil War, emphasizing major writers and works, as well as writers who suggest the diversity of subject and opinion in American literature.

Student Learning Outcome:

SLO 1 Demonstrate an understanding of the contexts historical, intellectual, social, and cultural on a broad range of American literature from the Colonial Period to the Civil War Period. SLO 2 Identify literary figures and works, including those of the traditional canon as well as culturally diverse and often over-looked voices.

SLO 3 Assess the historical development and cultural impact of themes that recur in American literature

ENGLISH 208 AMERICAN LITERATURE II (3) UC:CSU

Lecture: 3 hour(s)
Prerequisite: English 101;

This survey of American literature from the Civil War period to the present emphasizes major writers and works in order to understand, appreciate, and investigate multicultural influences within national identify.

Student Learning Outcome:

1. Demonstrate an understanding of the contexts historical, intellectual, social, and culturally diverse voices on a broad range of American literature from Civil War Period to the present. 2. Identify major literary figures and their works in the period. 3. Assess the historical development and cultural impact of themes that recur in American literature.

ENGLISH 212 POETRY (3) UC:CSU

Lecture: 3 hour(s)
Prerequisite: English 101.Prerequisite: English 101;

English 212 features the reading, discussion, and analysis of selected American, British, and world poetry. Students will also write poetry. The course is designed to increase the students' understanding and enjoyment of poetry.

Student Learning Outcome:

Demonstrate knowledge of voice, imagery, and poetic conventions of form and sound, using original language. Effectively analyze poetry in light of historical context, critical theories, and/or formal elements.

ENGLISH 215 SHAKESPEARE I (3) UC:CSU

Lecture: 3 hour(s)
Prerequisite: English 101; Advisory: English 102;

Course introduces students to Shakespeare's prose and poetry through several major plays and sonnets with an additional examination of Elizabethan England and the relationship between historical events and literary works. Course features a strong reading and writing component with an emphasis on class discussion, research and textual analysis.

Student Learning Outcome:

1) Understand dramatic technique and nuances of language in Shakespearean poetry and drama. 2) Recognize and analyze Shakespearean use of genre (Comedy, History, Tragedy, Romance), theme, character, setting, humor and allusion. 3) Compare and interpret Shakespearean drama through theatrical presentation.

ENGLISH 240 LITERATURE AND THE MOTION PICTURE I (3) UC:CSU

Lecture: 3 hour(s)
Prerequisite: English 101

This course is designed to give the student opportunities to view, analyze, and evaluate films of artistic and cultural significance. The relationship between literature and film is discussed and evaluated.

Student Learning Outcome:

In creating an analysis of both media, students will locate research materials on various works, issues, ideas in texts and online. Students will demonstrate an understanding of MLA format and source documentation in their essays.

ENGLISH AS A SECOND LANGUAGE

E.S.L. 004A COLLEGE ESL IV: WRITING AND GRAMMAR (6)

Lecture: 6 hour(s)
Prerequisite: ESL 3A

In ESL 4A, students continue to study grammar, sentence writing and paragraph writing. They also move forward to producing simple essays. ESL 4A is part of a sequence of ESL writing courses that prepare students for college level composition.

Student Learning Outcome:

Students will employ appropriate grammar to produce simple, organized, three-paragraph descriptive, narrative, and expository essays.

E.S.L. 004B COLLEGE ESL IV: READING AND VOCABULARY (3)

Lecture: 3 hour(s)
Prerequisite: 3B

Students review the skills learned in 3B and practice new skills, including taking notes on readings and summarizing main ideas from notes, beginning outlining, and expanding dictionary skills. Students also learn new vocabulary, including different forms of new words.

Student Learning Outcome:

Students will take notes on readings and summarize main ideas, begin outlining and expand dictionary skills to develop vocabulary.

E.S.L. 005A COLLEGE ESL V: WRITING AND GRAMMAR (6)

Lecture: 6 hour(s)
Prerequisite: ESL 4A

In ESL 5A, students consolidate grammar and paragraph writing skills. They also practice writing organized, well-developed essays. ESL 5A is part of a sequence of courses that prepare students for college level composition.

Student Learning Outcome:

Students will write organized, well-developed five-paragraph essays in a variety of rhetorical modes.

E.S.L. 005B COLLEGE ESL V: READING AND VOCABULARY (3)

Lecture: 3 hour(s)
Prerequisite: ESL 4B

ESL 5B students review the skills learned in ESL 4B, plus take reading notes and organize them into an outline and practice strategic reading skills for test-taking. Students also acquire new vocabulary and practice figuring out new words using prefixes and suffixes.

Student Learning Outcome:

Students will review the skills learned in ESL 4B and practice new skills, including understanding inferences and organizing notes into a detailed outline. Students will learn reading strategies for test taking.

E.S.L. 006A COLLEGE ESL VI: WRITING AND GRAMMAR (6)

Lecture: 6 hour(s)
Prerequisite: ESL 5A

ESL 6A students practice prewriting, editing, and rewriting skills that will lead to organized, well developed essays. A short research paper is also included. ESL 6A is part of sequel of ESL writing courses that leads to college level composition.

Student Learning Outcome:

Students will use critical thinking skills to write college level compositions, including research based topics. Students will learn self-editing and peer-editing skills.

E.S.L. 006B COLLEGE ESL VI: READING AND VOCABULARY (3) CSU

Lecture: 3 hour(s)
Prerequisite: ESL 5B

This course complements E.S.L. 6A and ESL 6C, providing intensive instruction in reading comprehension and vocabulary development at an advanced level. Emphasis is placed on developing critical reading skills needed to understand academic texts. Students develop skills in annotating, outlining, and summarizing texts. Students acquire knowledge of more sophisticated, academic vocabulary.

Student Learning Outcome:

1. Annotate, outline, and summarize academic texts. 2. Develop critical reading skills, including distinguishing fact from opinion and making logical inferences. 3. Conduct basic research by finding articles from a variety of textual sources.

E.S.L. 008 ADVANCED ESL COMPOSITION (6) CSU

Lecture: 6 hour(s)
Prerequisite: English 21; ESL 6S;

This is an advanced course in written composition and critical reading skills. It is a prerequisite to English 101. The emphasis is on writing based primarily on critical reading and secondarily on life experiences. Advanced grammar skills are emphasized throughout each lesson.

Student Learning Outcome:

Write a well-developed, coherent in-class essay. Produce a 4-page research paper in English, demonstrating MLA format and citations. Timed in-class Departmental Essay.

ESL 003A COLLEGE ESL III: WRITING AND GRAMMAR (6)

Lecture: 6 hour(s)
Prerequisite: ESL 2

In ESL 3A, students continue to learn good sentence writing, which includes basic punctuation and grammar. Students are also introduced to beginning level paragraph writing. ESL 3A is part of a sequence of ESL writing courses that prepare students for college level composition.

Student Learning Outcome:

Students will be able to identify, utilize and demonstrate basic speaking, listening, grammar, reading, and writing skills at a beginning-intermediate level.

ESL 003B COLLEGE ESL III: READING AND VOCABULARY (3)

Lecture: 3 hour(s)
Prerequisite: ESL 2

ESL 3B students learn basic English reading skills including previewing, skimming, scanning, main idea identification, and basic dictionary skills. Students learn new vocabulary and practice figuring out word meaning from context.

Student Learning Outcome:

Students will utilize previewing, skimming, and scanning to comprehend a text, and will be able to understand simple charts and graphs and summarize readings.

ESL 003C COLLEGE ESL III: LISTENING AND SPEAKING (3)

Lecture: 3 hour(s)
Prerequisite: ESL 2

In ESL 3C, students practice listening and speaking to communicate basic information regarding everyday school, work and social topics. They make class presentations based on oral interviews, learn common idioms, and practice pronunciation of pairs of similar-sounding words which commonly present difficulty.

Student Learning Outcome:

Students will be able to understand and follow oral and written directions by responding appropriately to spoken questions, statement, and prompts; discriminate between statements of fact and opinion, questions and commands; and produce short answers and simple sentences expressing fact and personal opinion.

ESL 006C COLLEGE ENGLISH AS A SECOND LANGUAGE VI: LISTENING AND SPEAKING (3)

Lecture: 3 hour(s)
Prerequisite: ESL 5C or placement

This course complements E.S.L. 6A and 6B and focuses on development of advanced speaking and listening skills necessary for college and vocational study. Students refine their abilities to participate in academic and vocational discussions and meetings.

Student Learning Outcome:

OUTCOME #1: Students will utilize formal, academic language to present and support an argument. OUTCOME #2: Students will take notes from videos and in-class academic topics. OUTCOME #3: Students will summarize and respond to natural speech from media sources.

ESL 008 COLLEGE ENGLISH AS A SECOND LANGUAGE VIII: ADVANCED ESL COMPOSITION (6)

Lecture: 6 hour(s)
Prerequisite: ESL 6A

ESL 8 is a course in written composition and critical reading skills for the English-as-a-Second Language student. The emphasis is on writing based primarily on critical reading and secondarily on life experiences. Advanced grammar skills are emphasized throughout each lesson.

Student Learning Outcome:

Students will write a series of essays leading up to a research paper.

ENVIRONMENTAL DESIGN

ENV 101 FOUNDATIONS OF DESIGN I (3) UC:CSU

Lecture: 1 hour; Lab: 4 hour(s)

Students develop creative, conceptual and analytical skills by creating simple to complex two and three dimensional projects based on nature systems and structural integrity. Connections between movement, rhythm, cycle, kinematics and mathematical formulation are explored in class as a foundation for smart spaces. Students will learn to properly communicate architectural concepts through drawings, renderings, physical models, and computer 3-D modeling. Form and space design principles, theories, order and methodologies are explored and incorporated into student projects. Process and procedures are applied to personal innovative projects inspired by Gaudi, BuckFuller, Frank Lloyd Right and Peter Eiseman. The profession of architecture and its relationship to others for the life cycle and sustainable synergy in the AEC Industry (Architecture, Engineering and Construction) are defined. This course is critical for students interested in pursuing a higher degree in architectural or a related design field. Students will also create an e-portfolio of their work.

Student Learning Outcome:

1. Students will identify patterns found in nature. 2. Students will apply nature's patterns in developing structural design model compositions. 3. Students will develop drawing using balance, rhythm, cycles, movement and mathematical formulation.

ENVIRONMENTAL SCIENCE

ENV SCI 001 THE HUMAN ENVIRONMENT: PHYSICAL PROCESSES (3) UC:CSU

Lecture: 3 hour(s)

Introduction to the environmental mechanisms that constitute our life support systems and the social, political and economic factors that are the ultimate cause of these problems. This includes an examination of the difference between science and technology and the limits to technological solutions to our environmental problems. The basic science required to understand how our environmental systems work is presented followed by analysis of the essential components of our life support systems and how we impact them. Finally, the major environmental issues are analyzed along with potential solutions to these problems where they exist.

Student Learning Outcome:

Upon successful completion of the course, the student will be able to: 1. Articulate the basics of environmental science including the earths systems, human population dynamics, and the status of our natural resources. 2. Discuss the basic science that explains how our environmental system works. 3. Describe the scientific method, the nature of scientific inquiry and apply the scientific process to assess real world problems and situations. 4. Discuss the status of environmental quality and pollution, and suggest possible remediation of problems. 5. Discuss information on global changes and the implications for the future. 6. Understand and discuss the interrelationship between the environment and society including influences of economics, aesthetics, culture, ethics, and law. 7. Observe the various views of others on the state of our environment. 8. Reflect on his or her own experiences about the environment and its present status.

FASHION DESIGN

FASHDSN 111 CLOTHING CONSTRUCTION (5) CSU

Lecture: 2.5 hour(s); Lab: 7.5 hour(s)

The students will be given instruction in single needle machine operation, sewing technique projects, garment assembly projects, occupational information and method of evaluation and relationship to the Fashion Industry. Basic information needed for entry level employment is provided.

Student Learning Outcome:

Student will compile a notebook consisting of industry construction techniques. Student will construct a trouser pant. Student will construct a button front shirt.

FASHDSN 112 BASIC FASHION ART AND DESIGN (5) CSU

Lecture: 1.5 hour(s); Lab: 7.5 hour(s)

Instruction includes drawing the women's fashion figure, drawing children and men's figures, flats, various styles and details. Introduction to color, design theory, fabric properties and rendering. Merchandising a garment line.

Student Learning Outcome:

Student will draw a group of technical flat sketches. Student will develop a portfolio of drawings including men's and women's wear.

FASHDSN 118 ADVANCED CLOTHING CONSTRUCTION (2)

Lecture: 1 hour; Lab: 3 hour(s)
Prerequisite: Fashion Design 111;

The objective of this course is to advance the sewing skills of students using specialized machinery. Students will construct garments using knit fabric, lycra/spandex, and Chiffon.

Student Learning Outcome:

Students will construct a one-piece swimsuit with bra cups hellenca lining and specialized elastics Students will construct a lined skirt with french seams and invisible zipper

FASHDSN 119 HISTORY OF COSTUME (3)

Lecture: 3 hour(s)

This course surveys the origins and development of clothing from prehistoric times through the 20th century. Students will explore costume from its earliest origins through adaptation and assimilation into popular 'fashion' in each century. Instruction will include in-depth study of fashion trends, creators, and political climate that has influenced the creation of men's and women's fashion. The influence of historical costume on contemporary dress is discussed.

Student Learning Outcome:

Students will create a presentation board tracing the historical and or cultural influences of a present day garment. Students will write a research paper including multiple media resources, a bibliography and the option of including visual elements.

FASHDSN 119A HISTORY OF COSTUME I (2) CSU

Lecture: 1.5 hour(s)

This course offers an overview of the evolution of fashion from its beginnings in the ancient world through the Baroque and Rococo Eras. Cross cultural influences on fashion through wars, trade, travel, immigration, and communication will be discussed.

Student Learning Outcome:

Students will create a presentation board tracing the historical and or cultural influences of a present day garment.

FASHDSN 119B HISTORY OF COSTUME II (2) CSU

Lecture: 1.5 hour(s)

This course will examine events of each period between 1800 and the present and their influence on fashion. Emphasis is placed upon fabrications and silhouettes which represent each period. The ongoing influence of vintage fashion, on contemporary design, will be analyzed.

Student Learning Outcome:

Students will write a research paper including multiple media resources, a bibliography and the option of including visual elements.

FASHDSN 120 BASIC PATTERN MAKING & DESIGN (5) CSU

Lecture: 2.5 hour(s); Lab: 7.5 hour(s)
Prerequisite: Fashion Design 111; Fashion Design 112

Instruction is given on drafting the basic block, multiple darts and gathers, style lines, sleeves, collars, skirts, and bodice silhouettes.

Student Learning Outcome:

Student will execute a pattern and garment utilizing basic pattern manipulations. Student will design and create a sketch for an original dress style from pattern through sewn garment that will include specific elements.

FASHDSN 122 GRADING AND MARKER MAKING (5)

Lecture: 2.5 hour(s); Lab: 7.5 hour(s)

Instruction is given in grading the basic block, multi-patterns, the complete pattern for men, women and children, in a variety of sizes, make a marker, manipulate the one and two darts block, draft the basic dart positions, demonstrate the slash and pivot methods, draft extensions, button placement and facing.

Student Learning Outcome:

Student will grade a princess style pattern including facings. Student will grade a stylized dress including stylized darts and facings. Student will use industry related software procedures to grade basic patterns

FASHDSN 125 TEXTILES, FIBERS AND FABRICS, PROPERTIES AND MANUFACTURING (3) CSU

Lecture: 3 hour(s)

This course is an introduction and overview of trade terminology, characteristics of fabric and the difference between cellulose, protein and man-made fibers. Topics discussed include: types of yarns and properties, twist yarn, yarn numbering systems and factors in yarn influencing quality. Woven, knitted, tufted, non-woven fabrics and additional fabrication methods will be discussed.

Student Learning Outcome:

1. Student will identify and name specific fabrications and compile a fabric notebook 2. Students will be able to distinguish between basic fiber groups through burn and chemical tests. 3. Students will recognize and understand basic weaves and knits.

FASHDSN 126 MANUFACTURING AND DESIGN ROOM PROCESS (1) CSU

Lecture: 1 hour
Prerequisite: Fashion Design 225;

Instruction is provided on manufacturing and design room process including industry overview and terminology. Cost sheets, specification sheets and inspiration boards will be emphasized in the course.

Student Learning Outcome:

Student will execute a specification sheet. Student will create a cost sheet. Student will design and present an inspiration board.

FASHDSN 130 DRAPING & DESIGN (5) CSU

Lecture: 2.5 hour(s); Lab: 7.5 hour(s)
Prerequisite: Fashion Design 120

Instruction is given in fundamental draping procedures. The basic block and dart variations, yoke styles, torso styles, advanced skirts, cowls, stretch knits, and current style adaptation are practiced.

Student Learning Outcome:

Student will drape a cowl blouse and stylized skirt in woven fabric including a finished pattern. Student will drape and create an original style in knit fabric and complete a finished pattern.

FASHDSN 132 ADVANCED PATTERNS AND DESIGN (5) CSU

Lecture: 2.5 hour(s); Lab: 7.5 hour(s)
Prerequisite: Fashion Design 120 and Fashion Design 122;

Instruction is given in torso, jacket and pant blocks, sleeves-in-one with the bodice, neckline variations, and style adaptations according to current styling.

Student Learning Outcome:

Student will design and create a contour blouse style and complete a finished pattern. Student will draft and create a pant style and complete a finished pattern. Student will draft and create a lined jacket style and complete a finished pattern.

FASHDSN 137 BUSTIER CREATION (2) CSU

Lab: 6 hour(s)

Research historical bustier (corset foundation) designs and construction methods and adapt them to create currently fashionable bustiers. Fundamentals of evening dress foundation.

Student Learning Outcome:

Students will be able to drape and fit an evening dress foundation block to fit a form and construct an evening dress foundation with pads and bones.

FASHDSN 138 TAILORING TECHNIQUES FOR READY TO WEAR (2) CSU

Lab: 4 hour(s)

The objective of this course is to advance the tailoring skills of fashion design students. Instruction will be given on preparation and cutting of fabric, basic hand stitching, the use of steam pressing equipment, and basic elements of tailored apparel.

Student Learning Outcome:

Students will construct a lined jacket incorporating required elements.

FASHDSN 139 COORDINATED SPORTSWEAR (2) CSU

Lecture: 1 hour; Lab: 3 hour(s)
Prerequisite: Fashion Design 132; Advisory: Fashion Design 118; Fashion Design 138;

Instruction is given on the development of coordinated sportswear including story board presentation and critique. This class has been developed to focus on this most important component of the local apparel industry with concentration on jacket and pant construction and coordination of multiple fabrications within a group.

Student Learning Outcome:

Student will develop and present a story board for a coordinated sportswear group. Student will design produce elements of a coordinated sportswear group.

FASHDSN 140 ADVANCED DRAPING & DESIGN (2)

Lecture: 1 hour; Lab: 2 hour(s)
Prerequisite: Fashion Design 130;

This course includes the draping of selected garment types & style innovations. Students use either muslin or fashion fabric according to design and fabrication. Original designs are created & executed in fabric.

Student Learning Outcome:

Student will drape and create a bias gown inspired by Vionette including a complete pattern. Student will drape and create an advanced style contemporary jacket using innovative style lines and will draft a complete pattern

FASHDSN 141 ADVANCED DESIGN (5) CSU

Lecture: 2.5 hour(s); Lab: 7.5 hour(s)
Prerequisite: Fashion Design 130 and Fashion Design 132;

Instruction is given in knit blocks, specialized fabrics, dartless blocks, knock-offs, and specialized projects relating to current trends.

Student Learning Outcome:

Student will replicate an intricate pant style including a complete pattern and finished garment. Student will design and create a swim suit using industry required fabrications and draft of complete pattern. Student will design and construct a cocktail dress in appropriate assigned fabrications using drafting and draping techniques and complete pattern.

FASHDSN 142 MANUFACTURING PRODUCTION (5) CSU

Lecture: 2.5 hour(s); Lab: 7.5 hour(s)
Prerequisite: Fashion Design 141;

Instruction is given in design and creation of garments for showing to the apparel industry. Included is the creation of children's and men's designs along with evening and avant garde styles and the development of a perfect production patterns for a minimum of two ensembles. Field trips, senior evaluation, and job orientation are also included.

Student Learning Outcome:

Student will be required to complete two original designs for selected categories to be presented in the department fashion show. Student will be required to present a current resume and demonstrate the ability to interview for a professional position.

FASHDSN 147 FASHION SHOW PRODUCTION (2)

Lecture: 1.5 hour(s); Lab: 1.5 hour(s)

Instruction is given on developing a theme and overall concept for presenting a fashion show. Topics include history of fashion presentations, model selection, fitting, stage design and execution plus behind the scenes production of a department fashion show.

Student Learning Outcome:

Formulate a fashion show production plan including; a preliminary budget, venue description, and show categories.

FASHDSN 148 ACTIVEWEAR DESIGN (2) CSU

Lecture: 1 hour; Lab: 2 hour(s)
Prerequisite: Fashion Design 132 or Fashion Design 225 and 226

Instruction is given in the specialized area of active wear. Focusing on fabrication, design, inner-construction, and sewing techniques. The student will draft basic pattern blocks, design and construct active wear garments.

Student Learning Outcome:

Students draft and correct a basic dartless knit block to their personal measurements and body alignment using stretch reduction calculations.

FASHDSN 151 ADVANCED FASHION ART AND DESIGN (2)

Lecture: 1 hour; Lab: 2 hour(s)
Prerequisite: Fashion Design 112;

Instruction is given on design and creation of garments for showing to the apparel industry. Included is the creation of children's and men's designs along with evening and avant garde styles and the development of a perfect production patterns for a minimum of two ensembles. Field trips, senior evaluation, and job orientation are also included.

Student Learning Outcome:

Student will develop a portfolio and prepare a resume.

FASHDSN 185 DIRECTED STUDY - FASHION DESIGN (1)

Lecture: 1 hour

This course allows students to pursue directed study in Fashion Design on a contract basis under the direction of a supervising instructor. Students must be enrolled in at least one fashion course to take this class.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a project based on a topic in Fashion Design and related topics.

FASHDSN 222 SAMPLE MAKING AND DESIGN I (2)

Lab: 6 hour(s)

The fundamentals of garment construction using industrial patterns, marker making and industrial power machines. Students are assigned garment projects which demonstrate basic techniques, combining classic with modern manufacturing techniques, with special emphasis on pattern layouts for plaids and prints.

Student Learning Outcome:

Students will develop a portfolio of sewing techniques and list the sequence of assembly.

FASHDSN 223 SAMPLE MAKING AND DESIGN II (2)

Lab: 6 hour(s)

The objective of this course is to advance the sewing skills of fashion design students. Students are assigned to create and construct a coordinated group using industrial patterns. Selected blouses, shirts, pants and jacket are made.

Student Learning Outcome:

Students execute a coordinated group including a shirt, pant, and jackets. This project will be completed in children's wear.

FASHDSN 224 SAMPLE MAKING AND DESIGN III (2)

Lab: 6 hour(s)

Instruction is provided on construction and fitting of selected commercial patterns adapted to industry standards. Students receive instruction in the theory of color, line and proportion. They create or select designs suitable to the individual and occasion. Selected soft dressmaker type coats, suits, vests, blouses, and dresses are made.

Student Learning Outcome:

Students will execute independent items including a lined vest and jacket, a lined pant or skirt, a shirt or blouse and 1 knit style.

FASHDSN 225 PATTERN MAKING AND DESIGN I (2)

Lab: 6 hour(s)
Advisory: Fashion Design 222;

Entry level class offering instruction in development of a basic block, test fitting, and additional basic pattern making fundamentals.

Student Learning Outcome:

Student will draft and construct a basic block. Student will create and construct an original design based on required elements and quality of construction.

FASHDSN 226 PATTERN MAKING AND DESIGN II (2)

Lab: 6 hour(s)
Prerequisite: Fashion Design 225;

Intermediate level class offering instruction on the torso bodice, dartless block and drafting a basic pant then using the blocks to create dresses, shirt styles and pant variations. Advanced skirts styling is also included.

Student Learning Outcome:

Students will draft and construct a torso block from the basic sloper. Students will draft a shift dress with mandarin collar, princess seams, required sleeve elements, and construct a full muslin. Students will draft and construct a princess dress including required elements.

FASHDSN 227 PATTERN MAKING AND DESIGN III (2)

Lab: 6 hour(s)
Prerequisite: Fashion Design 226

Advanced level class offering instruction on jackets, advanced sleeve styles, contouring fundamentals, and basic bodysuits and leotards.

Student Learning Outcome:

Students will be able to draft or knock-off and construct a basic pant including required elements to personal measurements. Students will be able to draft a bolero with a close fitting raglan and a shawl collar and construct a muslin. Students will be able to draft a tailored jacket block, construct a shell with 2 piece sleeve, revere collar, and traditional jacket facing

FASHDSN 228 PATTERN GRADING AND DESIGN I (2)

Lab: 6 hour(s)

This course offers training in increasing and decreasing the pattern size for basic slopers in the several size ranges of women's wearing apparel. Also includes practice in selected methods and in the use of "grading machines" currently used in industry.

Student Learning Outcome:

Student will grade a princess style pattern including facings.

FASHDSN 229 PATTERN GRADING AND DESIGN II (2)

Lab: 6 hour(s)

Selected whole garments are graded. Research and study is done on the laws of proportionate growth, size ranges, and difficult pattern shapes. Principles of design are correlated to grading problems. Marker making and cost sheets development is included in this course.

Student Learning Outcome:

Student will grade a stylized dress including stylized darts and facings

FASHDSN 236 FASHION SKETCHING AND DESIGN I (2)

Lab: 6 hour(s)

Instruction includes fashion figure drawing, rendering fabrics and garments on figures, designing selected garments, study of color theory and techniques.

Student Learning Outcome:

Student will draw a group of technical flat illustrations.

FASHDSN 237 FASHION SKETCHING AND DESIGN II (2)

Lab: 6 hour(s)
Prerequisite: Fashion Design 236

Instruction includes women's day dresses, children's fashion figures and garment designs, watercolor or gouache techniques, illustrations, contemporary graphic layouts and the portfolio development. Techniques of quick sketching will be covered.

Student Learning Outcome:

Students will execute fabric rendering with various mediums for design of women's, men's and children's styles.

FASHDSN 238 FASHION SKETCHING AND DESIGN III (2)

Lab: 6 hour(s)
Prerequisite: Fashion Design 236; Fashion Design 237

Development of professional portfolio presentation including development of design focus and, advanced research techniques. The process will include the development of illustration techniques and design refinement. Professional readiness including; writing a resume, cover letter and calling card and developing refined job interview skills.

Student Learning Outcome:

Student will develop a portfolio of drawings including men's and women's wear.

FASHDSN 239 GOWN DRAPING AND DESIGN I (2)

Lab: 6 hour(s)

Instruction is offered on draping, fitting basic blocks, and transferring the drape to a paper pattern. Students will drape basic type bodices, sleeves, skirts, collars, and construction details. Theory includes basic principles of design, line, proportion, and fabric use.

Student Learning Outcome:

Students will drape and create a detailed blouse and skirt style including a complete pattern. Students will drape and create a stylized dress including a complete pattern.

FASHDSN 240 GOWN DRAPING AND DESIGN II (2)

Lab: 6 hour(s)

This course includes the draping of casual knit garments and dress and jacket style innovations. Students use either muslin or fashion fabric according to their capabilities. Fashion trends are studied and original designs are created.

Student Learning Outcome:

Students will drape and create a woven shift dress with stylized neckline. Students will drape and create innovative coordinated separates in knit fabric using specialized machinery.

FASHDSN 241 GOWN DRAPING AND DESIGN III (2)

Lab: 6 hour(s)

This course correlates the designer's knowledge of designing, sketching, patternmaking, draping, and construction. Students develop confidence as they study the problems of merchandising and manufacturing. Original designs for special occasion garments are executed in various fabrics.

Student Learning Outcome:

Students will drape an evening gown using selected elements in specific evening fabrications

FASHDSN 244 PHOTOSHOP FOR FASHION DESIGN (2) CSU

Lab: 6 hour(s)

This course offers computer fashion art instruction using Adobe Photoshop software. Emphasis is placed on preparation and input of fashion images for portfolios and design presentations as required by industry standards.

Student Learning Outcome:

Students will learn to use Adobe Photoshop selection tools to create and communicate vision; mood or trend boards that inspire color stories.

FASHDSN 250 BEGINNING COMPUTER APPAREL SYSTEMS (2)

Lab: 6 hour(s)

This course will cover digitizing, grading, some pattern making, and marker making. Also covered are database files including grade rules, model files, and annotation. Student will plot pieces and markers. This course uses Gerber Accumark software.

Student Learning Outcome:

Students will create system files, digitize and verify pattern pieces using Gerber hardware and software.

FASHDSN 255 COMPUTERIZED PRODUCT DESIGN (2)

Lab: 6 hour(s)

This course offers training and development of skills in apparel utilizing the latest versions of apparel pattern making software. Design students will concentrate on pattern development including, drafting, alterations, and manipulations.

Student Learning Outcome:

Students will draft a basic block to specific measurements using Gerber PDS Apparel System.

FASHDSN 256 CAD APPAREL PRE-PRODUCTION TECHNIQUES (2)

Lab: 6 hour(s)

This course offers basic training in the apparel pre-production process, including grading and marker making as it applies to computerized apparel production. The class will cover the specialized Lectra computer software programs. Students will learn to the functions of the software while grading and making markers. Basic computerized pattern making will also be covered.

Student Learning Outcome:

Student will be able to digitize an existing pattern into the computer where it will be graded, marked and prepared for the production process. Student will be able to manipulate a basic block to create a stylized pattern.

FASHDSN 257 APPAREL PATTERN DESIGN SYSTEMS (2)

Lab: 6 hour(s)

This course provides an overview of current computer-aided design applications used in apparel pattern development. The class will cover manual pattern development and demonstrate how two-dimensional patterns translate to the computer. Students will learn to identify menus associated with pattern applications, used for Tukatech software, and will compose a full-scale pattern on the computer as it applies to industry.

Student Learning Outcome:

Students will design a computer pattern from Tukatech systems basic blocks.

FASHDSN 258 COMPUTER-AIDED PATTERN SYSTEMS (2)

Lab: 6 hour(s)

This course is designed to expand knowledge of pattern making using Lectra Systems software programs. A variety of pattern will be created using the draft method and the use of basic blocks.

Student Learning Outcome:

Students will be able to create a jacket pattern including lining, facing and two piece sleeve using the jacket foundation.

FASHDSN 264 APPAREL COMPUTER SYSTEMS ANALYSIS (2) CSU

Lecture: 1 hour; Lab: 2 hour(s)

This lab course demonstrates how the apparel industry uses commercial and Vendor apparel technology in the global market. Topics covered are apparel software and commercial hardware used to design and manufacture products.

Student Learning Outcome:

Student will use commercial software to create documents used in the manufacturing process. Student will use industry related software to perform basic manufacturing processes.

FASHDSN 270 ILLUSTRATOR FOR FASHION DESIGN (2)

Lab: 6 hour(s)

This computer sketching course focuses on the fundamental options to illustrate garments, and fabrics for clothing and accessory presentations based on current global fashion industry technology standards.

Student Learning Outcome:

Students will create Fashion Flat sketches according to Fashion industry standard. Students will learn to create acceptable file formats for different output mediums like web and print.

FASHDSN 285 DIRECTED STUDY - FASHION DESIGN (2)

Lecture: 2 hour(s)

This course allows students to pursue directed study in Fashion Design on a contract basis under the direction of a supervising instructor. Students must be enrolled in at least one fashion course to take this class.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a project based on a topic in Fashion Design and related topics.

FASHDSN 385 DIRECTED STUDY - FASHION DESIGN (3)

Lecture: 3 hour(s)

This course allows students to pursue directed study in Fashion Design on a contract basis under the direction of a supervising instructor. Students must be enrolled in at least one fashion course to take this class.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a project based on a topic in Fashion Design and related topics.

FASHDSN 941 COOPERATIVE EDUCATION - FASHION DESIGN (4)

Lecture: 4 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

FASHION MERCHANDISING

FASHMER 001 ENTREPRENEURIAL FASHION (3) CSU

Lecture: 2.5 hour(s); Lab: 1.5 hour(s)
Advisory: English 101; Mathematics 105

This course delivers the information needed to develop an effective business plan and provides a background in entrepreneurship for apparel related businesses. Students will examine the development of a fashion retail business from concept evaluation to strategy articulation. Procedures and resources for researching and opening a business are covered, as well as assortment planning, pricing and financing.

Student Learning Outcome:

Students will be able to evaluate a potential business idea and write a business plan for a retail or wholesale business.

FASHMER 010 RETAIL MERCHANDISING (3) CSU

Lecture: 3 hour(s)
Advisory: English 101; Mathematics 105

This course introduces all phases of fashion retailing from the creative to the financial. It is designed to familiarize students to the crucial functions of merchandising and product management in a modern retail company. The course covers special aspects of retailing including: the evolution of the industry, merchandising roles and careers, market knowledge, consumer behavior, planning and control and retail pricing.

Student Learning Outcome:

Students will be able to identify a consumer market for a retail store through the research of demographic, psychographic, and behavioristic traits of a target market.

FASHMER 020 APPAREL PRODUCT DEVELOPMENT (3) CSU

Lecture: 2.5 hour(s); Lab: 1.5 hour(s)
Advisory: English 101; Mathematics 105

This course covers the step-by-step development of apparel products in a retail or wholesale environment. Students will use research, merchandising knowledge and the application of merchandising concepts and theories in a simulated process. The course includes visual presentation of design concepts, raw materials sourcing, overviews of production technology, wholesale marketing and retail distribution. Special emphasis is placed on the California apparel industry.

Student Learning Outcome:

Students will learn the process of product development and understand how to plan, organize, develop, produce and sell an apparel line. They will create and cost samples for a fashion collection.

FASHMER 021 CULTURAL PERSPECTIVES OF DRESS (3) CSU

Lecture: 3 hour(s)
Advisory: English 101

This course covers the factors that influence human behavior in the selection of dress in societies and cultural groups, and the influence of these factors on the design and production of textiles and apparel. Students will study consumer's purchasing decisions. Topics include the cultural context of dress, dress as nonverbal communication, dress through life stages, dress in the workplace, ethnic influences on dress, and technological changes of dress.

Student Learning Outcome:

1. Students will explain the symbolism of specific tattoo art as it relates to body dressing as a part of fashion culture in our society. 2. Students will demonstrate how to present oneself in a professional setting to the best advantage and relate how dress affects specific jobs in various occupations.

FASHMER 025 FASHION AND INDUSTRY INTERCHANGE (3) CSU

Lecture: 3 hour(s)
Advisory: English 101

This course covers current trends and relationships in the Fashion Industry between apparel, accessories, cosmetics, and home goods. Each category of goods is reviewed from the perspectives of historical development, organization and operation, merchandising and marketing in order to gain broad insight to the unique aspects of these industry segments.

Student Learning Outcome:

Students will be able to identify relationships in the fashion industry between apparel, accessories, cosmetics, jewelry and hard lines. Students will understand the unique characteristics of these categories, and learn to identify and track current trends.

FASHMER 027 ADVANCED RETAIL MERCHANDISING (3) CSU

Lecture: 3 hour(s)
Prerequisite: Fashion Merchandising 10; Advisory: English 101; Mathematics 105;

An advanced retail research and study course covering retail demographics, site selection, stock assortments, planning, retail budgets, and sales applicable to all retail environments. Merchandise coordination and seasonal planning are given detailed coverage.

Student Learning Outcome:

Students will be able to conduct market, fabric, and sourcing research to create a line of LATTC Logo Apparel, and illustrate their work in a Power Point presentation.

FASHMER 030 WHOLESALE MERCHANDISING (3) CSU

Lecture: 3 hour(s)
Advisory: English 101; Mathematics 105

This course prepares students for a merchandising position with an apparel manufacturing company. All phases, including line development, design, costing, sales, production, contracting and distribution are covered. Current trends and specialized knowledge in merchandising a successful line are emphasized.

Student Learning Outcome:

Students will understand the steps of wholesale merchandising relating to marketing the line, preproduction processes, quality assurance and distribution.

FASHMER 035 FASHION PROMOTION (3) CSU

Lecture: 3 hour(s)
Advisory: English 101

This course covers the promotional aspects of the retail fashion industry. Emphasis is given to the processes of fashion communication and how they connect company profit and performance with skillful and creative promotional strategies. Sales promotion, advertising formats, public relations, and direct marketing are presented.

Student Learning Outcome:

Student will be able to write a press release for a new apparel product or event. They will be proficient in the use of an industry standard template to create and write a document for the purpose of publicizing a fashion item or event.

FASHMER 040 MODERN MERCHANDISING MATH (3) CSU

Lecture: 3 hour(s)
Advisory: Mathematics 105

Students will learn to use the computer for costing, pricing, inventory control as well as vendor analysis. All current concepts in wholesale and retail merchandise planning are presented. The emphasis is on practical knowledge and the use of computers in today's apparel business. The class will cover the principles and procedures involved in the business applications of the apparel industry using Apparel Information Management System (AIMS) software for wholesale and Microsoft Excel for making retail buying decisions.

Student Learning Outcome:

Students will create an inventory management and vendor analysis reports including calculations of retail price, wholesale cost, markup dollars, and markup percent for apparel items using manual and computer software applications.

FASHMER 041 FASHION MERCHANDISE BUYING (3) CSU

Lecture: 2.5 hour(s); Lab: 1.5 hour(s)
Advisory: Fashion Merchandising 10; English 101; Mathematics 105

This course provides specific instruction on fashion/merchandise buying tasks such as: identifying target customers, creating six month merchandise plans, departmental assortment plans, shopping the market and placing orders, in-season sales planning and forecasting, and calculating open-to-buy. This course covers the process of retail buying for a small business as well as for larger companies.

Student Learning Outcome:

Students will be able to identify a retail product opportunity and articulate a well-developed strategy to accomplish their proposed sales and marketing plan. They will be able to demonstrate their strategy through a computer generated six month plan (excel), window and floor displays (Smart Draw, Photoshop, etc.), and written text presented in an organized binder/portfolio.

FASHMER 050 INTERNATIONAL FASHION BUSINESS (3) CSU

Lecture: 3 hour(s)
Advisory: English 101

This course provides an active study of the dynamics and challenges of the international apparel industry. Topics covered include: International business today; cultural diversity and dynamics; international legal issues; global opportunities in marketing; importing/exporting strategies; and international fashion business vocabulary terms.

Student Learning Outcome:

Students will analyze news articles related to class discussion topics and present key information.

FASHMER 941 COOPERATIVE EDUCATION - FASHION MERCHANDISING (4)

Lecture: 4 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

FINANCE

FINANCE 008 PERSONAL FINANCE AND INVESTMENTS (3) CSU

Lecture: 3 hour(s)

This course is designed to provide students with an understanding of a person's financial affairs, including family budgeting, consumer credit, home ownership, insurance, investment/savings, banking services, and major consumer purchases.

Student Learning Outcome:

Students will evaluate the use of financial budgeting concepts to make sound decisions in managing their personal finances.

FRENCH

FRENCH 001 ELEMENTARY FRENCH I (5) UC:CSU

Lecture: 5 hour(s)

This course introduces the cultures and civilization of France and the French-speaking world. This introductory course stresses the fundamentals of French pronunciation and grammar; the building of a practical basic vocabulary; and the development of the ability to speak, understand, read, and write simple contemporary French.

Student Learning Outcome:

1. Demonstrate novice mastery of the fundamental structure of French the ability to communicate in the present and immediate future tenses in everyday situations. 2. Recognize and relate facts about culture of France and Francophone countries. 3. Perform novice level communication functions skills using the structures and vocabulary learned

FRENCH 002 ELEMENTARY FRENCH II (5) UC:CSU

Lecture: 5 hour(s)
Prerequisite: French 1

This course completes the study of elementary grammar, increases vocabulary, includes the reading of simplified texts with continued emphasis on aural and written comprehension, oral expression, and the writing of simple French. Further study of French and Francophone cultures are expected to be covered.

Student Learning Outcome:

1. Student will recognize the overall basic structure and patterns of the French language and ability to communicate personal information, activities, describe feelings and preferences in everyday situations using various past tenses(pass compose/ imparfait), present conditional, and future tenses on an elementary language level. 2. Student will perform novice level communication function skills using the vocabulary structures learned. 3. Student will recognize and relate facts about culture of France and Francophone countries.

GEOGRAPHY

GEOG 001 PHYSICAL GEOGRAPHY (3) UC:CSU

Lecture: 3 hour(s)

This course studies the physical environment of earth. Emphasis is placed on climate, soils, vegetation, landforms, maps, weather systems, oceans, and the atmosphere, and their pattern on Earth.

Student Learning Outcome:

Students will apply basic geography concepts to answer the following questions: a) Classify rock types according with their geologic origin. b) Describe the concept of plate tectonic boundaries and types. c) Describe the types of waves generated during an earthquake.

GEOG 002 CULTURAL ELEMENTS OF GEOGRAPHY (3) UC:CSU

Lecture: 3 hour(s)
Advisory: English 28

This course examines how human civilization and the physical planet affect each other. This includes cultural ecology, population growth and distribution, sustainable development, languages and religions, use of natural resources, transportation and commerce, energy production, food production, globalization, as well as the social, political, and economic causes of war and climate change.

Student Learning Outcome:

1. Students will assess and list how organic agriculture improves the U.S. economy, its environment and the physical health of its citizens. 2. Students will report which factors lead to a decline in death rates and a maintenance of high birth rates in Stage 2 of the Demographic Transition

GEOLOGY

GEOLOGY 001 PHYSICAL GEOLOGY (3) UC:CSU

Lecture: 3 hour(s)

In this elementary course, the students learn Earth's internal and external forces and the features that these forces create. Students study minerals, rocks, volcanoes, earthquakes, mountain building, plate tectonics, tsunami, global warming, natural resources, and alternative energy resources. Students will also learn basic scientific principles, the process of the scientific method, map reading and geographic literacy.

Student Learning Outcome:

The student will be able to correctly describe all of the three rock types and accurately discuss and give concrete examples of the basic components of the the rock cycle, processes such as plate tectonics, and earth's natural resources.

GEOLOGY 006 PHYSICAL GEOLOGY LABORATORY (2) UC:CSU

Lecture: 1 hour; Lab: 2 hour(s)

This course supplements Geology 1 with additional exercises in the identification of rocks and minerals, reading of maps, and study of rock structures. Studies of local geology are made based upon field trips and the collection of specimens.

Student Learning Outcome:

Course SLOs: Upon completion of this course the student will be able to: 1. Analyze the role of plate tectonics in changing the sizes of the Earth's continents and oceans; Graph seismic data to determine the magnitude of earthquakes and locate the epicenter of earthquakes. 2. Identify common minerals & rock types on the basis of their physical properties; interpret past environment through detailed observation of mineral composition, fossil types and rock structures. 3. Construct topographic cross sections and geologic cross sections to analyze the geologic and deformational history of an area. 4. Determine the relative and absolute ages of rocks based on their physical relationships; using fossils to determine their age relationships, and determine absolute ages from radiometric data. 5. Analyze landforms formed by and hazards related to surface and groundwater, oceans, glaciers and wind. Interpret global climate change patterns on the basis of variations in sea level and glacier sizes. Program SLOs: 1. Explain the interrelationships between different disciplines to understand how the geological processes function 2. Apply the scientific method to the study of the geological materials and processes 3. Utilize information learned to make informed decisions about global and local environmental issues. Institutional SLOs: 1. Critical Thinking: Analyze problems by differentiating fact from opinions, using evidence, and using sound reasoning to specify multiple solutions and their consequences. 2. Quantitative Reasoning: Identify, analyze, and solve problems that are quantitative in nature. 3. Technical Competence: Utilize the appropriate technology effectively for informational, academic, person, and professional needs.

HEALTH

HEALTH 002 HEALTH AND FITNESS (3) UC:CSU

Lecture: 2 hour(s); Lab: 2 hour(s)

This course promotes healthy physical and psychological lifestyles, with emphasis on disease prevention, including violence/abuse, nutrition, sexuality, reproduction, drugs, alcohol, tobacco, aging, stress management, and weight control. The physical fitness segment emphasizes individual improvement utilizing aerobic, flexibility, and strengthening activities.

Student Learning Outcome:

Students will use critical thinking skills to gather, identify, analyze, synthesize information, and evaluate problems and solutions to reaching improving their personal health and fitness.

HEALTH 006 NUTRITION FOR HEALTHFUL LIVING AND FITNESS ACTIVITIES (3) UC:CSU

Lecture: 2 hour(s); Lab: 2 hour(s)

Basic nutrition theories, information for healthful food purchasing, and relationship of nutrition to disease. Benefits of exercise and techniques for body conditioning are learned. Class time includes participation in fitness activities including aerobic, developmental and flexibility exercises.

Student Learning Outcome:

Using the components of Health and Fitness and information on nutrition gained from the class, students will develop a program that includes a structured fitness and nutritional program that they can modify and enhance yearly to promote lifelong fitness.

HEALTH 008 WOMEN'S PERSONAL HEALTH (3) UC:CSU

Lecture: 3 hour(s)

A study of factors affecting physical, social and emotional well-being of women in our society.

Student Learning Outcome:

1. Student will identify the major health issues affecting women and the lifestyle changes which can be made to improve their own health and the health of their family members.

HEALTH 011 PRINCIPLES OF HEALTHFUL LIVING (3) UC:CSU

Lecture: 3 hour(s)

This course offers concepts to use today and tomorrow as guidelines for self-directed responsible living. Health topics cover the emotional and mental health, cardiovascular fitness, nutrition, chronic and communicable diseases, environmental issues, and the life cycle. Student is provided with self-assessments for examining their lifestyle habits and relationships, as well as, resources for getting help when they need it.

Student Learning Outcome:

Student will create and present a "lifeplan" that will include activities that will promote lifelong wellness using all the dimensions of health.

HEALTH 012 SAFETY EDUCATION AND FIRST AID (3) UC:CSU

Lecture: 3 hour(s)

This course involves the theory and detailed demonstration of the first aid care of the injured. The student will learn to assess a victim's condition and incorporate proper treatment. Standard first aid, CPR, and AED certification(s) will be granted upon successful completion of requirements.

Student Learning Outcome:

1. Student will be able to perform Red Cross Adult CPR "Compression Only" on an adult manikin in correct sequence. 2. Student will be able to apply a pressure bandage to forearm in correct sequence. 3. Student will be able to identify a person experiencing a stroke using the FAST recognition mnemonic.

HEALTH 021 HUMAN SEXUALITY (3) UC:CSU

Lecture: 3 hour(s)

This course provides a comprehensive introduction to the cultural, behavioral, biological and psychosocial aspects of human sexuality. Topics presented include acquired immune deficiency syndrome and other sexually transmitted diseases, as well as sexual variance and dysfunction, and sexuality throughout the human life cycle.

Student Learning Outcome:

Student will define the various sexually transmitted infections, their causes and the treatment for each.

HEALTH 043 MEN'S HEALTH AND FITNESS (3) UC:CSU

Lecture: 2 hour(s); Lab: 2 hour(s)

This course explores men's health issues and adds a fitness component so that men can learn to understand and control their life long health practices, attitudes and challenges that contemporary men experience in urban areas. It studies topics important to men such as domestic abuse and violence, stress, alcoholism, disease transmission and other physical, emotional and social topics related to men's health, fitness and wellness.

Student Learning Outcome:

Student will identify key factors that specifically affect a Man's health and ways to improve a man's health.

HEALTH OCCUPATIONS

HLTHOCC 037 NURSE ASSISTANT (5)

Lecture: 3 hour(s); Lab: 6 hour(s)

This course is approved by the State of California. It prepares students to perform basic nursing tasks and educates them about the roles and responsibilities of the Certified Nurse Assistant. Skills include principles of safety, infection control and basic patient care practices. Students who successfully complete the course are eligible to take the State Certification Examination.

Student Learning Outcome:

Student will demonstrate the ability to perform patient care skills in a restorative care setting. Perform skills that assist with activities of daily living for people in a residence care setting.

HLTHOCC 038 HOME HEALTH AIDE (2)

Lecture: 1.2 hour(s); Lab: 1.2 hour(s)
Prerequisite: Health Occupations 37

This course is approved by the State of California. It prepares students to perform in-home care to patients and assist them with activities of daily living. Students will provide care to clients in the areas of comfort, hygiene, nutrition, elimination, sleep and rest. Emphasis is on the role of the home health aide, interpretation of client needs, personal-care services, nutrition and cleaning and care tasks in the home.

Student Learning Outcome:

1. Perform patient care skills and procedures listed under Title 22,

Division V for HHA's. 2. Learn and apply legal issues, safety issues, and management care in a home/hospice setting.

HLTHOCC 049 FUNDAMENTALS OF ELDER CARE (5) C

Lecture: 4 hour(s); Lab: 3 hour(s)
Prerequisite: HLTHOCC 062, HLTHOCC 063, HLTHOCC 064 and HLTHOCC 065

This course will introduce students to the information about the aging process and related medical, psychological and cognitive changes that is needed to effectively care for the elderly person in a long-term care center or at home.

Student Learning Outcome:

Student will acquire understanding of fundamentals of physical and psychosocial care of the elderly. Student will provide basic physical and psychosocial care to the elderly resident of a care facility

HLTHOCC 062 SKILL SET FOR THE HEALTH CARE PROFESSIONAL (2) C

Lecture: 1 hour; Lab: 3 hour(s)
Advisory: English 021, Math 105

This course is an introduction of the concepts and skills that serve as a foundation for the health care professions. Topics include hygiene and safety, infection control, basic client monitoring and basic first aid, therapeutic communication and basic health documentation.

Student Learning Outcome:

Student will demonstrate understanding of principles in basic patient care skills. Student will perform basic skills of care to patients with injuries or diseases.

HLTHOCC 063 BASIC MEDICAL TERMINOLOGY, PATHOPHYSIOLOGY AND

PHARMACOLOGY FOR THE HEALTHCARE PROFESSIONAL (2) C

Lecture: 2 hour(s)
Advisory: English 021, Math 105

This basic medical language course will discuss common diseases and injuries and their pharmacological treatment using medical terminology in English and Spanish, when appropriate.

Student Learning Outcome:

1. Student will analyze medical language and component parts. 2. Student will apply medical language to discussion of treatment of common diseases and injuries.

HLTHOCC 064 CULTURAL AND LEGAL TOPICS FOR HEALTH CARE PROFESSIONALS (1) C

Lecture: 1 hour
Advisory: English 021, Math 105

This course provides an overview of the concepts of health and illness, cultural diversity and legal issues that affect the health care professional

Student Learning Outcome:

1. Student will apply legal guidelines as they relate to health care situations including privacy, confidentiality and safety. 2. Students will take action to minimize cultural conflicts in the health care setting.

HLTHOCC 065 FUNDAMENTALS FOR THE HEALTH CARE PROFESSIONAL (3) C

Lecture: 2.5 hour(s)
Advisory: English 021, Math 105

This course explores career options in the health care industry, healthy behavior for health care workers, work ethics, professional resumes and interviewing skills and personality traits of a health care professional. There will be an externship during which area employers will introduce students to direct and indirect patient care opportunities

Student Learning Outcome:

Student will take action that demonstrates understanding of the variation, complexity and ethical principles of the health care provider role in direct and indirect patient care settings. Student will demonstrate workplace traits that promote professional responses to patients, families, colleagues and other members of the healthcare system in simulated settings.

HISTORY

HISTORY 011 POLITICAL AND SOCIAL HISTORY OF THE UNITED STATES I (3) UC:CSU

Lecture: 3 hour(s)
Advisory: English 28

This course will examine the historical development of the United States of America from 1492 to the close of the Civil War. Emphasis is placed on the relationship of regions, the role of major ethnic and social groups, the continuity of the American experience, and its derivation from other cultures, politics, economics, social movements, and its geography.

Student Learning Outcome:

1. Defend a position on a debatable historical issue. 2. Describe and analyze the actors, locations, timelines, actions, and reasons surrounding a historical event. 3. Examine and assess the key events leading up to the Civil War.

HISTORY 012 POLITICAL AND SOCIAL HISTORY OF THE UNITED STATES II (3) UC:CSU

Lecture: 3 hour(s)
Advisory: English 28

This course will examine the historical development of the United States of America from the close of the Civil War to the present. Emphasis is placed on the role of the major ethnic and social groups, the continuity of the American experience, and its derivation from other cultures, politics, economics, social movements, and its geography.

Student Learning Outcome:

1. Students will defend a position on a debatable historical issue. 2. Describe and analyze the actors, locations, timelines, actions, and reasons surrounding a historical event. 3. Students will examine and assess the key events from 1865 to the Present.

HISTORY 041 THE AFRICAN AMERICAN IN THE HISTORY OF THE U.S. I (3) UC:CSU

Lecture: 3 hour(s)
Advisory: English 28

This course will examine the historical development of the African American from precolonial Africa through the Civil War. This course will examine the political, social, economic and intellectual development of the United States, as well as the State and local government and constitution of the U.S.

Student Learning Outcome:

Students will critically examine how the decade of the 1850™s offered a preview of the coming of the Civil War. Students will assess the key events as primary causes of the Civil War. Students will describe the events they perceive as pivotal events that led African American participation in the Civil War. Students will include the following key people, events, issues: Anti-Slavery society, Fugitive Slave Laws, the Dred Scott Decision, Kansas Nebraska Act, John Brown Raid, Frederick Douglass, Abraham Lincoln, Mary Ellen Pleasant, Thomas Sims and Martin R. Delany

HISTORY 042 THE AFRICAN AMERICAN IN THE HISTORY OF THE U.S. II (3) UC:CSU

Lecture: 3 hour(s)
Advisory: English 28

This course will examine the historical development of the United States of America from the end of the Civil War to the present with special emphasis on the contributions of the Afro- American. Emphasis is placed on the relationship of regions, both internal and external, the role of major ethnic and social groups, the continuity of the American experience, and its deviation from other cultures, politics, economics, social movements, and its geography will be examined.

Student Learning Outcome:

Students will be able to critically analyze experiences of African Americans from the post-Civil War to the present, New Millennium. 1. Students will be able to research and analyze a topic that affected African Americans post-Civil War to present. 2. Students will analyze an event from this period and be able to link the people, issues and factors that influence the event (s).

HISTORY 043 THE MEXICAN-AMERICAN IN THE HISTORY OF THE UNITED STATES I (3) UC:CSU

Lecture: 3 hour(s)
Advisory: English 028

Examines historical development of the United States from the period of exploration to the close of the Civil War with special emphasis on the history of Mexican-Americans. Emphasis on regions, both internal and external, major ethnic and social groups, the American experience and its derivation from other cultures, politics, economics, social movements, and geography.

Student Learning Outcome:

1. Discuss and defend a position on a debatable Mexican-American historical issue.

2. Examine and assess the key events leading up to the U.S.-Mexican War.

HISTORY 044 THE MEXICAN AMERICAN IN THE HISTORY OF THE UNITED STATES II (3)

Lecture: 3 hour(s)
Advisory: English 028

Examines historical development of the United States from the close of the Civil War to the present with special emphasis on the history of Mexican-Americans. Emphasis on regions, both internal and external, major ethnic and social groups, the American experience and its derivation from other cultures, politics, economics, social movements, and geography. The U.S. Constitution, the State of California Constitution, and local government will be examined. Political philosophies, political institutions, amendments and interpretations, rights and obligations of citizens, and Federal/State/local governments will be examined.

Student Learning Outcome:

1. Examine and assess the key events of the Chicano Movement. 2. Students conduct academic research to create a paper on a historical 20th century Mexican American issue using APA format.

HISTORY 052 THE ROLE OF WOMEN IN THE HISTORY OF THE U.S. (3) A

Lecture: 3 hour(s)
Advisory: English 28

This course will explore the political, social, economic and intellectual history of women in the development of the United States from the early colonial era to the present, with special emphasis on their contributions, as well as issues. Also, it surveys, the U.S. Constitution and California state and local government in the context of the story of women in the history of the United States.

Student Learning Outcome:

1. In a research essay through the evaluation of print or web primary and/or secondary sources, students will identify and critically analyze individuals who have contributed to changing women's status in U.S. History. 2. In a research essay through the evaluation of print or web primary and/or secondary sources, students will identify and explain movements that have contributed to changing women's status in U.S. History. 3. In a research essay through the evaluation of print or web primary and/or secondary sources, analyze the role that American law has played in defining women's position in American society.

HISTORY 086 INTRODUCTION TO WORLD CIVILIZATION I (3) UC:CSU

Lecture: 3 hour(s)
Advisory: English 28

Introductory survey of World Civilization to 1500. This course will examine and compare the social, economic, and political formations of various societies and world cultures. Major topics will include religion, philosophy, technology, and migration and settlement patterns.

Student Learning Outcome:

1. In a research essay through the evaluation of print or web primary and/or secondary sources, students will identify and critically analyze the development of a major world civilization and its culture. 2. In a research essay through the evaluation of print or web primary and/or secondary sources, students will identify and compare two major world civilizations. 3. In a research essay through the evaluation of print or web primary and/or secondary sources, students will identify and critically analyze social patterns, economic trends, political formations, religious changes, and/or cultural changes of a major world civilization.

HISTORY 087 INTRODUCTION TO WORLD CIVILIZATION II (3) UC:CSU

Lecture: 3 hour(s)

Introduction survey of World Civilization from 1500 to the Present. This course will examine and compare the social, economic, and political formations of various governments, societies, and world cultures. Major topics will include the development of the nation state, economic systems and technology, industrialization, colonization, and global conquest, revolutions, and migration and settlement patterns.

Student Learning Outcome:

1. In a research essay through the evaluation of print or web primary and/or secondary sources, students will identify a world civilization from 1500 to the present and critically analyze its importance and contributions to humankind. 2. In a research essay through the evaluation of print or web primary and/or secondary sources, students will discuss the development of a major world government from 1500 to the present and demonstrate how this government and its culture interact. 3. In a research essay through the evaluation of print or web primary and/or secondary sources, students will compare and analyze the social patterns, economic trends, political formations, or religious and cultural changes of two major world civilizations developed from 1500 to the present.

HUMANITIES

HUMAN 001 CULTURAL PATTERNS OF WESTERN CIVILIZATION (3) UC:CSU

Lecture: 3 hour(s)
Prerequisite: English 28

This course is an introduction to the general concepts of the humanities. Music, painting, sculpture and architecture are studied and compared in relation to their background, medium, organization and style. Included is a survey of the most productive periods of Western history, from classical Greek through the medieval period. Stress is placed on awareness of difference in cultural heritage, values and perspective as revealed in the arts.

Student Learning Outcome:

Students will demonstrate familiarity with a broad spectrum of world civilizations with particular emphasis on how their artistic legacies reflect political and religious traditions. 1. Students will demonstrate familiarity with several early world civilizations. 2. Students will compare and contrast world religions. 3. Students will assess the ways in which visual art and literature reflect social, political and religious traits of the society that produced them.

HUMAN 002 STUDIES IN SELECTED CULTURES (3) UC:CSU

Lecture: 3 hour(s)
Prerequisite: English 28

Students study in-depth the social, political, economic and cultural features of a particular culture or set of related cultures. Customs, traditions, values, historical events and trends, religious traditions, pop cultural practices, achievements and trends in the arts and the sciences of the cultures studied are also examined. Western, Eastern, Mid-Eastern, African and other cultures and societies both past and present may be studied.

Student Learning Outcome:

Students will be able to analyze ways in which modern social and political history are reflected in the arts, including literature, visual arts and music: 1. Students will explore art and architecture within the context of the society that created it. 2. Students will interpret social, religious, and psychological dimensions of works of poetry, prose and drama. 3. Students will compare and contrast art, literature and music from different cultures or time periods

HUMAN 060 PEOPLE AND THEIR WORLD: TECHNOLOGY AND THE HUMANITIES (3) CSU

Lecture: 3 hour(s)

This course relates technology to the humanities and provides opportunities to examine the interaction between society and technology. Questions about cultural and social values in light of the effects of technology from the Paleolithic period to the 21st century are developed and discussed. In their research, students explore the societal effects of the latest technological developments of our time.

Student Learning Outcome:

1) Students will identify the links that have historically existed between technology and the arts. 2) Explain technological innovations within the arts. .

KINESIOLOGY

KIN 300-1 SWIMMING NON-SWIMMER I (1) UC:CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)

This course will enhance the skills of the students in floating, kicking and swimming the crawl and backstroke.

Student Learning Outcome:

Students will be able to successfully swim Freestyle without flotation support in deep water:

Students will demonstrate proficiency in at least 4 of the 10 swimming skills and at least 1 of the lifelong fitness skills listed in the swimming rubric as skills they will use to promote lifelong fitness.

KIN 300-2 SWIMMING NON-SWIMMER II (1) UC:CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)

This course continues to enhance the skills of the students in floating, kicking and swimming the crawl and backstroke that were developed in Swimming-I. Additionally, skills in the sidestroke and the elementary backstroke will be taught as well as the ability to safely enter the water with a jump and a long shallow dive.

Student Learning Outcome:

Students will be able to successfully swim Freestyle and Backstroke. Students will demonstrate proficiency in at least 6 of the swimming skills and at least 2 of the lifelong skills.

KIN 300-3 SWIMMING NON-SWIMMER III (1) UC:CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)
KIN 300-2

This course continues to enhance the skills of the students in Freestyle, backstroke, elementary backstroke and sidestroke that were developed in Swimming-II. Additionally, the basic skills of the Breaststroke, competitive starts and turns, and interval training will be taught.

Student Learning Outcome:

The student will demonstrate proficiency in at least 8 of the swimming skills and 3 of the lifelong skills.

KIN 301-1 SWIMMING SKILLS I (1) UC:CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)

This course is designed to further enhance the skills of competitive swimming in freestyle and backstroke including competitive flip turns, starts and finishes. The course will also introduce the basic principles of training.

Student Learning Outcome:

Student will complete 30 lengths (750 yards) in a combination of freestyle and backstroke within 20 minutes.

KIN 301-2 SWIMMING SKILLS II (1) UC

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)
Prerequisite: KIN 300-1

This course is designed to further enhance the skills of competitive swimming in freestyle and backstroke learned in 301-1 as well as introduce the basic principles of the competitive Breaststroke. The course will also use slightly advanced principles of training and increased yardage.

Student Learning Outcome:

Student will complete 40 lengths (1000 yards) in a variety of strokes within 20 minutes Successfully complete a 100 Ind. Medley Swim

KIN 301-3 SWIMMING SKILLS III (1) UC:CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)
Prerequisite: KIN 301-2

This course is designed to further enhance the skills of competitive swimming in freestyle and backstroke learned in 301-1 as well as the skills learned in 301-2 for the competitive breaststroke and introduce the skills of the competitive butterfly. The course will also use advanced principles of training and increased yardage.

Student Learning Outcome:

Student will be able to successfully complete a 200 IM and demonstrate the proper techniques and skills within the swim.

KIN 303-1 AQUA AEROBICS I (1)

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)

INSTRUCTION AND PRACTICE IN DEEP WATER EXERCISE TO INCREASE KNOWLEDGE AND LEVELS OF CARDIOVASCULAR FITNESS, MUSCULAR STRENGTH AND ENDURANCE, AND FLEXIBILITY. NO SWIMMING SKILLS REQUIRED.

Student Learning Outcome:

Students will engage in and assess their performance in a variety of shallow water exercises that promote overall health and fitness.

KIN 303-2 AQUA AEROBICS II (1)

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)
Prerequisite: KIN 303-1

INSTRUCTION AND PRACTICE IN DEEP WATER EXERCISE TO INCREASE KNOWLEDGE AND LEVELS OF CARDIOVASCULAR FITNESS, MUSCULAR STRENGTH AND ENDURANCE, AND FLEXIBILITY. NO SWIMMING SKILLS REQUIRED. THIS COURSE BUILDS UPON KNOWLEDGE ACQUIRED IN KIN 303-1.

Student Learning Outcome:

Students will engage in and assess their performance in a variety of deep water exercises that promote overall health and fitness.

KIN 303-3 AQUA AEROBICS III (1) CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)
Prerequisites: KIN 303-1 and 303-2

This course applies the knowledge and experience gained from KIN 303-1 and KIN 303-2 to exercise at intensities designed to prevent and reverse Type 2 Diabetes. Students will journal their workouts and caloric intake to focus on reducing body fat and insulin resistance. Exercises will be done in both shallow and deep water with specialized water resistance equipment designed to exhaust stored muscle glycogen.

Student Learning Outcome:

Students will engage in and assess their performance in a variety of water activities at a level capable of reducing insulin resistance.

KIN 303-4 AQUA AEROBICS IV (1) CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)
Prerequisite: KIN 303-3

This course applies the knowledge and experience gained from KIN 303-1 and KIN 303-2 to develop personal water exercise programs to meet the demands of career, improve posture, and alleviate pain caused by muscle imbalances. Students will utilize water exercises and resistance equipment in both shallow and deep water to strengthen weaker muscles. Water Yoga techniques will be used to stretch muscles and build core strength.

Student Learning Outcome:

Students will engage in and assess their performance in a variety of water activities that promote muscle balance.

KIN 307-1 SWIM AND RUN I (1) UC:CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)

This course develops cardiovascular conditioning and fitness through running and swimming laps. It enables students to gain awareness of the importance of proper running techniques/postural alignment, including progressive resistance training and conditioning for the purpose of training for a biathlon. Nutrition and concepts of fitness are also covered.

Student Learning Outcome:

The student will be able to run and swim with the proper techniques and skills for an extended period of time.

KIN 307-2 SWIM AND RUN II (1) :CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)

This course develops cardiovascular conditioning and fitness through running and swimming laps. It enables students to gain awareness of the importance of proper running techniques/postural alignment, including progressive resistance training and conditioning for the purpose of training for a triathlon. Nutrition and concepts of fitness are also covered.

Student Learning Outcome:

The student will be able to run and swim with the proper technique with an emphasis on the principles of training including overload and specificity of training.

KIN 307-3 SWIM AND RUN III (1) UC:CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)

This course develops cardiovascular conditioning and fitness through running and swimming laps. It enables students to gain awareness of the importance of proper running techniques/postural alignment, including progressive resistance training, hill training, intervals and conditioning for the purpose of training for a biathlon. Nutrition and concepts of fitness are also covered.

Student Learning Outcome:

The student will be able to run and swim with the proper technique with an emphasis on the principles of training including overload and specificity of training, and be able to transition between the run and swim phases of a biathlon.

KIN 329-1 BODY CONDITIONING I (1) UC:CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)

This class is designed to incorporate forms, concepts and techniques associated with body conditioning. Including Pilates, Core Strengthening, Cardiovascular Exercise and Muscular Strength and Endurance exercises.

Student Learning Outcome:

Students will learn basic fitness principles and techniques and will be able to show proficiency.

KIN 329-2 BODY CONDITIONING II (1) UC:CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)
Prerequisite: KIN 329-1

This class is designed to incorporate intermediate forms, concepts and techniques associated with body conditioning. Including Pilates, Core Strengthening, Cardiovascular Exercise and Muscular Strength and Endurance exercises.

Student Learning Outcome:

Students will be able to incorporate fitness principles and techniques and create a personalized fitness program.

KIN 329-3 BODY CONDITIONING III (1) UC:CSU

Lecture: 1 hour

Body Conditioning intermediate concepts and mastery of exercise techniques associated with the application of exercise concepts to design an individualize exercise program implementing concepts discussed in class. Concepts discussed include: Muscle anatomy, Muscle Fiber Recruitment, Cardiovascular Adaptations to Exercise, Muscle adaptation to Specific Loads, and Energy systems utilized in cardiovascular exercise training. Methods incorporated in class activities include: Pilates Core Strengthening, Cardiovascular Exercise, Muscular Strength and Endurance, Flexibility; and Body Composition.

Student Learning Outcome:

Students will learn basic fitness principles and techniques and will be able to show proficiency.

KIN 330-1 CARDIO KICKBOXING I (1) UC:CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)

This is the first level of a non-contact activity course designed to use basic kicking and punching techniques to improve overall fitness including: cardiorespiratory endurance, muscular strength and endurance, flexibility, and body composition.

Student Learning Outcome:

Student Learning Outcome: Student will be able to demonstrate a jab/ reverse punch combination.

KIN 330-2 CARDIO KICKBOXING II (1) UC:CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)

This is the second level of a non-contact activity course designed to build on basic kicking and punching techniques from Cardio Kickboxing-1. New techniques and combinations will be added to improve overall fitness including: cardiorespiratory endurance, muscular strength and endurance, flexibility, and body composition.

Student Learning Outcome:

Student Learning Outcome: Including the jab/reverse combination from Cardio Kickboxing-1, student will be able to demonstrate the proper Kenpo self-defense technique against one of four attacks.

KIN 330-3 CARDIO KICKBOXING III (1) UC:CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)
Prerequisites: KIN 330-2

This is the third level of a non-contact martial arts activity course designed to build on techniques from Cardio Kickboxing-1 and Cardio Kickboxing-2. New techniques and combinations will be added to improve overall fitness including: cardiorespiratory endurance, muscular strength and endurance, flexibility, and body composition.

Student Learning Outcome:

Student Learning Outcome: Drawing from the Kenpo techniques in Cardio Kickboxing 2 and 3, student will be able to demonstrate the proper Kenpo self-defense technique against one of eight attacks.

KIN 332-1 STEP AEROBICS I (1) CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)

This course is designed to improve cardiovascular fitness and strengthen select muscle groups by performing stepping skills in rhythm with music. Stepping is primarily a low impact aerobic exercise. Activity includes muscle conditioning and flexibility exercises.

Student Learning Outcome:

Students will demonstrate an understanding of cardiovascular fitness by performing a group fitness routine and achieving BASIC skills on the Rubric.

KIN 334-1 FITNESS WALKING I (1) UC:CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)

Walking for Fitness level 1 focuses on achieving cardiovascular fitness, building upon level 1 workouts and enhancing a healthy lifestyle through walking. Includes such topics as fitness walking training principles overload and specificity, proper nutrition, differences of aerobic versus anaerobic workouts, Target Heart Rate, proper technique, shoe selection, posture, gait, flexibility, clothing, and safety limitations. This course will assess fitness levels and identify the physical health benefits from walking.

Student Learning Outcome:

Students will complete the Mile Walk Test to determine cardiorespiratory fitness.

KIN 334-2 FITNESS WALKING II (1) UC:CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)
Prerequisite: KIN 334-1

Walking for Fitness level 2 focuses on achieving cardiovascular fitness, building upon level 1 workouts and enhancing a healthy lifestyle through walking. Includes such topics as fitness walking training principles overload and specificity, proper nutrition, differences of aerobic versus anaerobic workouts, Target Heart Rate, proper technique, shoe selection, posture, gait, flexibility, clothing, and safety limitations. This course will assess fitness levels and identify the physical health benefits from walking.

Student Learning Outcome:

Students will demonstrate an optimal healthy flexibility range. Students will complete the Mile Walk Test to determine aerobic capacity.

KIN 334-3 FITNESS WALKING III (1) UC:CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)
Prerequisite: KIN 334-2

Walking for Fitness level 3 focuses on developing cardiovascular fitness at an advanced level. This course will introduce principles and strategies of interval training building upon level 1 and 2 workouts and developing a healthy lifestyle through walking. This course includes the five health related components of fitness (muscular strength, muscular endurance, flexibility, cardiovascular fitness and body composition). Includes such topics as fitness walking training principles including: frequency, intensity, overload and specificity, nutritional analysis, differences of aerobic versus anaerobic workouts, Target Heart Rate, proper technique, shoe selection, flexibility, clothing and safety limitations. Students will gain the ability to assess fitness level and the physical health benefits from walking.

Student Learning Outcome:

Students will demonstrate an optimal healthy flexibility range. Students will complete the Mile Walk Test to determine aerobic capacity. Students will determine Target Heart Rate to monitor intensity of workouts

KIN 334-4 FITNESS WALKING IV (1) UC:CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)
Prerequisite: KIN 334-3

Walking for Fitness level 4 is for the advanced Fitness Walker. Level 4 focuses on achieving developing fitness walking programs based upon exercise physiological principles. This course includes the five health related components of fitness (muscular strength, muscular endurance, flexibility, cardiovascular fitness and body composition). Building upon fitness Walking level 1, 2 and 3 workouts students will develop individual walking plans used throughout one's lifetime. Includes topics as fitness walking training principles including: frequency, intensity, overload and specificity, nutritional analysis, differences of aerobic versus anaerobic workouts, Target Heart Rate, proper technique, shoe selection, flexibility, clothing and safety limitations. Students will gain the ability to assess fitness level and the physical health benefits from walking.

Student Learning Outcome:

Students will demonstrate an optimal healthy flexibility range. Students will complete the Mile Walk Test to determine aerobic capacity. Students will determine Target Heart Rate to monitor intensity of workouts Students will determine BMI for optimal healthy body weight

KIN 350-1 WEIGHT TRAINING I (1) UC:CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)

This course enhances training skills, including enhanced spotting techniques, enhanced lifting techniques and an introduction to more advanced exercises used in a weight training program. An increased emphasis will be placed in the knowledge, understanding, value and practical application of building muscle strength and endurance. The course will include an increased understanding of the human muscular system. The objective is to further enhance the student's ability to prepare their own physical fitness program at any time in their life and to assist others based upon sound physiological and bio-mechanical principles.

Student Learning Outcome:

Demonstrate and increased knowledge in weight training, including safety techniques and level 2 exercises. Define the main muscles in the human muscular system

KIN 350-2 WEIGHT TRAINING II (1)

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)

This course introduces students to intermediate weight training skills, which include principles of free weight training, anatomy and nutrition for fitness. An emphasis will be placed in the knowledge, understanding, value and practical application of building muscle strength and endurance. The objective is to continue the development of the student's ability to create his/her own physical fitness program at any time in their life based upon sound physiological and biomechanical principles.

Student Learning Outcome:

Student will demonstrate the proper procedures for spotting a bench press lift. Student will show an increase in muscular strength between a pre and post strength test.

KIN 366-1 BADMINTON SKILLS I (1) CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)

Students learn the basic fundamental skills and knowledge necessary to play badminton such as the serve, forehand, backhand, clear, drop, and smash shots. Also covered are singles and doubles strategy, along with the history of badminton, basic terminology, rules, and scoring. Safety and selection of equipment are included.

Student Learning Outcome:

The students will develop the basic knowledge and skills in the game of badminton to use for recreation and lifelong fitness demonstrated by achieving the NOVICE level of the Skill Rubric.

KIN 366-2 BADMINTON SKILLS II (1) CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)
Prerequisite: KIN 366-1

In this course, students learn intermediate skills and knowledge necessary to play badminton such as cross court, down the line and reverse cross-court clears; at the net, from the back court, and from the mid-court drops; and forehand and backhand service. The course also covers offensive and defensive techniques of the smash as well as training drills, agility, endurance, and court coverage for competitive play.

Student Learning Outcome:

The student will demonstrate advanced skills needed to play badminton recreationally and competitively, demonstrate the ability to teach basic skills in the game and use the game for lifelong fitness by completing skills at the Intermediate level on the attached Rubric.

KIN 387 BASKETBALL (1) UC:CSU

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)

This course is designed to teach all levels of basketball skills. It not only emphasizes fundamental basketball skills such as dribbling, passing and shooting but it also includes the selection and care of equipment, rules, offense and defense strategy, etiquette, terminology and the components of fitness.

Student Learning Outcome:

Student will be able to identify the basic rules of the game of basketball. Students will be able to participate in a game situation basketball scrimmage using proper skills.

KIN 391-1 VOLLEYBALL I (1) B

Lecture: 0.5 hour(s); Lab: 2.5 hour(s)

This course is designed to teach the basic volleyball skills of passing, setting, spiking, serving and blocking. The course will introduce individual and team offense and defense systems, as well as the rules, etiquette, terminology and strategies for volleyball.

Student Learning Outcome:

Student will demonstrate a minimum of NOVICE in each of the skill areas tested on the rubric.

KIN 500 BASKETBALL THEORY (3) UC:CSU

Lecture: 2 hour(s); Lab: 2 hour(s)

This course will help the advanced basketball student acquire a more in depth understanding of the various offensive and defensive theories in the sport of basketball. Analysis of strategies and outcomes will be emphasized.

Student Learning Outcome:

At the conclusion of this course, students will be able to diagram offensive and defensive plays.

KINESIOLOGY ATHLETICS

KIN ATH 504 INTERCOLLEGIATE ATHLETICS-BASKETBALL (3) UC:CSU RPT 3

Lab: 10 hour(s)

Fundamental, intermediate and advance principles/theories and skills of Basketball. Instruction, demonstration and practice of basic basketball skills, include passing, dribbling, shooting, rebounding, individual and team offense/defense and basketball intercollegiate competition.

Student Learning Outcome:

Students will demonstrate the skills and strategies necessary to succeed in a game, meet or match.

KIN ATH 506 INTERCOLLEGIATE ATHLETICS-CROSS COUNTRY (3) UC:CSU RPT 3

Lab: 10 hour(s)

This course concentrates on the theory, technique and practice of intercollegiate competition associated with running Cross Country. Conditioning and preparing for competition in regularly scheduled meets are integral parts of the daily class meetings. This course is designed to develop an understanding of advanced theory and technique of intercollegiate Cross Country competition.

Student Learning Outcome:

1. Students will demonstrate the skills and strategies necessary to succeed in a game, meet or match.

KIN ATH 513 INTERCOLLEGIATE ATHLETICS-SWIMMING AND DIVING (3) UC:CSU RPT 3

Lab: 10 hour(s)

Intercollegiate Athletic competitive swimming and diving team course. Instruction, demonstration and practice of fundamental and advanced swimming and diving techniques, including starts, turns, stroke technique, breathing, interval training and intercollegiate competition.

Student Learning Outcome:

Students will compete in Intercollegiate Athletics

KIN ATH 516 INTERCOLLEGIATE ATHLETICS-VOLLEYBALL (3) UC:CSU RPT 3

Lab: 10 hour(s)

This course provides the skills, training and allows for participation in the intercollegiate volleyball team. Students who take this class must meet eligibility requirements as requested by the conference and/or CCCAA.

Student Learning Outcome:

Students will demonstrate the skills and strategies necessary to succeed in a game, meet or match.

KIN ATH 517 INTERCOLLEGIATE ATHLETICS-WATER POLO (3) UC:CSU RPT 3

Lab: 10 hour(s)

Intercollegiate Athletic competitive Water Polo team course. Fundamental and advanced principles/theories of water polo techniques. Instruction, demonstration and practice of swimming, eggbeater, offense, defense, counter attack, man up and man down situations.

Student Learning Outcome:

Students will demonstrate the skills and strategies necessary to succeed in a game, meet or match.

KIN ATH 552 INTERCOLLEGIATE SPORTS-CONDITIONING & SKILLS TRAINING (1) UC:CSU RPT 3

Lab: 3 hour(s)

This course is designed for the student athlete. The following areas are emphasized: the analysis and training of athletic skills, the analysis of offensive and defensive systems, physical conditioning, strength training and aerobic conditioning.

Student Learning Outcome:

Students will demonstrate the skills and strategies necessary to succeed in a game, meet or match.

KIN ATH 554 INTERCOLLEGIATE TRACK/FIELD-FITNESS & SKILLS TRAINING (1) UC:CSU RPT 3

Lab: 3 hour(s)

This course involves an overview of all aspects of competitive Track & Field with lectures and student participation.

Student Learning Outcome:

Students will demonstrate the skills and strategies necessary to succeed in a game, meet or match.

KIN ATH 560 INTERCOLLEGIATE SWIMMING/DIVING-FITNESS & SKILLS TRAINING (1) UC:CSU RPT 3

Lab: 3 hour(s)

The course provides strength and fitness training for current or perspective intercollegiate athletes in the sport of swimming. The class provides the groundwork for an upcoming season through various swimming skills, drills, and aerobic and anaerobic conditioning.

Student Learning Outcome:

Student will Complete Eligibility Standards. Student will demonstrate improved swim conditioning levels. Students will demonstrate increased speed and decreased time in competitive events.

KIN ATH 561 INTERCOLLEGIATE WATER POLO-FITNESS & SKILLS TRAINING (1) UC:CSU RPT 3

Lab: 3 hour(s)

The course is a designed to provide strength and fitness training for current or perspective intercollegiate athletes in the sport. The class provides conditioning for an upcoming season, the rules and regulations of the sport as well as provides information on the requirements of being a competitive player.

Student Learning Outcome:

1.) Students will demonstrate exceptional ball handling skills in passing and receiving. 2.) Students will demonstrate exceptional defensive play in game situations. 3.) Students will meet eligibility standards. 4.) Students will demonstrate exceptional shooting abilities.

KIN ATH 563 INTERCOLLEGIATE VOLLEYBALL-FITNESS & SKILLS TRAINING (1) CSU RPT 3

Lab: 3 hour(s)

This course is designed for the student athlete. It is intended to provide focused strength and conditioning and flexibility exercises, emphasize safety and injury prevention and present new rules and game plays for volleyball.

Student Learning Outcome:

Students will demonstrate physical improvements in volleyball skills and game play.

KINESIOLOGY MAJOR

KIN MAJ 100 INTRODUCTION TO KINESIOLOGY (3) CSU

Lecture: 3 hour(s)

Introduction to the discipline of Kinesiology/Physical Education; examination of the study of physical activity from the perspectives of experience, research, and professional practice. Topics include career opportunities, history, philosophy, current trends and curriculum development.

Student Learning Outcome:

The student who successfully completes this course will be able to do the following: 1. Evaluate different career paths in Kinesiology and describe the basic requirements needed to pursue a career in this field. 2. Explain the importance of physical activity in daily life and its relationship to health. 3. Identify the career options available to students graduating from departments of kinesiology, and the qualifications associated with 3 different careers.

KIN MAJ 101 FIRST AID AND CPR (3) UC:CSU

Lecture: 3 hour(s)

This course covers and expands standard emergency first aid to include situations where help is delayed, during natural disasters and major catastrophes. This course also covers the recommendations by the American Heart Association, National Safety Council and the American National Red Cross for community members to respond to non-breathing and sudden cardiac emergencies. Includes techniques for all ages along with emergency action plans, safety, and prevention of disease transmission.

Student Learning Outcome:

Students will be able to identify emergency situations and provide the appropriate emergency care to victims. Students will be able to demonstrate the first aid care that is needed in common medical emergencies. Demonstrate cardiopulmonary resuscitation and the use of the AED.

KIN MAJ 106 SPORTS ETHICS (3) CSU

Lecture: 3 hour(s)

This course addresses a wide range of moral and ethical issues in sports. Topics include values, principles, racial and gender equity, coaching, commercialization, enhancing stimulants and ergogenic aids, eligibility, violence, sportsmanship and Code of Ethics in sports. Examines current and historical events, rules, laws and governing organizations.

Student Learning Outcome:

Identify of performance substances used in sports and the impact they have had to the game.

KIN MAJ 108 ANCIENT OLYMPIC GAMES (3)

Lecture: 3 hour(s)

This course addresses a wide range of topics that are specific to the field of the Ancient Olympic Games. Topics include Prehistory of the Games, Athletics and Education, The Olympic Games in Ancient Greece, The Events, Sport in the Hellenistic and Roman Periods. The course will examine the historical and continuing effect of the Ancient Games on the present day Olympic movement.

Student Learning Outcome:

Define the role of Ancient Athletes in Greek society.

KIN MAJ 134 ADVANCED LIFESAVING (2) CSU

Lecture: 1 hour; Lab: 2 hour(s)
Advisories: KIN 201-1 303-3 and or KIN 307-1

This class provides training in and the opportunity to get certified in the latest Red Cross Lifeguarding program. The Red Cross Lifeguarding certificate includes training in cardiopulmonary resuscitation (CPR), first aid, automated external defibrillator (AED), oxygen administration, and Lifeguard Management materials.

Student Learning Outcome:

Students are prepared to respond to emergencies in and around the swimming pool.

LABOR STUDIES

LABR ST 001 US LABOR HISTORY (3) CSU

Lecture: 3 hour(s)

This course covers the often untold story of workers' struggle to improve their lives through union organizing and collective bargaining, ranging from early craft unions, the bloody battles to form industrial unions, and the rise of labor federations and public sector unions.

Student Learning Outcome:

Students will describe the lessons learned from labor history and their current relevance.

LABR ST 002 COLLECTIVE BARGAINING (3) CSU

Lecture: 3 hour(s)

This course examines the dynamics of collective bargaining including: preparation of demands and negotiation strategies, offers and counter-offers, major bargaining trends, contract campaigns, and 'mock' bargaining.

Student Learning Outcome:

Students will demonstrate the skills and knowledge to bargain a union contract.

LABR ST 003 LABOR RELATIONS LAW (3) CSU

Lecture: 3 hour(s)

This course provides a comprehensive overview of labor relations laws, primarily for the private sector, covering employee, employer and union rights and obligations, unfair labor practices, union representation elections and other Labor Board procedures.

Student Learning Outcome:

The student will be able to recognize the main provisions of the National Labor Relations Act.

LABR ST 004 LABOR IN AMERICA (3) UC:CSU

Lecture: 3 hour(s)

Examines how labor organizations and labor laws impact workers, families and American society focusing on worksite-related issues such as job security, income, workers' rights, immigration and role of unions.

Student Learning Outcome:

Students will identify the role unions play in the United States and how unions benefit all workers.

LABR ST 005 GRIEVANCE AND ARBITRATION PROCEDURES (3) CSU

Lecture: 3 hour(s)

Students learn to identify, investigate, write and present grievances and arbitrations with emphasis on participant's own contract, grievance procedure and experiences.

Student Learning Outcome:

Students will identify, investigate, write and present grievances and arbitrations.

LABR ST 006 LABOR AND COMMUNITY SERVICES (3) CSU

Lecture: 3 hour(s)

This course is designed to train Union Counselors to aid members in need. Topics include: financial assistance, debt counseling, unemployment/ disability, health and mental health services, child care and other important community support.

Student Learning Outcome:

Students will be able to identify public and private agencies that provide assistance to members in need. Students will be able to develop a program to assist their members in need.

LABR ST 007 LABOR AND POLITICAL ACTION (3) CSU

Lecture: 3 hour(s)

Covers current political issues facing working people, labor movement, methods and techniques for lobbying, political action, member mobilization, monitoring legislation and campaign laws.

Student Learning Outcome:

The student will be able to use effective electioneering techniques, including methods to mobilize members to political action.

LABR ST 009 ORGANIZING STRATEGIES AND TECHNIQUES (3) CSU

Lecture: 3 hour(s)

Students will learn basic skills and techniques needed to organize new workers, build and strengthen their unions and learn about relevant laws and winning strategies.

Student Learning Outcome:

The student will be able to effectively use organizing strategies and techniques. The student will be able to formulate effective non-NLRA strategies.

LABR ST 011 LABOR IN THE PUBLIC SECTOR (3) CSU

Lecture: 3 hour(s)

This course covers public employment practices, policies, laws and labor relations at the federal, state and local levels.

Student Learning Outcome:

Students will identify the legal framework of public sector labor relations and the impact of public policy on public sector unions.

LABR ST 012 BUILDING STRONG UNIONS (3) CSU

Lecture: 3 hour(s)

This course examines how to manage and lead a union: including strategic planning and goal setting; effective communications; time management; team building; increasing member participation; leading organizational change.

Student Learning Outcome:

The student will be able to develop a strategic plan to motivate and mobilize members. .

LABR ST 013 UNION LEADERSHIP (3) CSU

Lecture: 3 hour(s)

This class covers basic leadership skills for building influence and advancing in a union. Includes public speaking, parliamentary procedure, strategic planning, staff development, motivating and mobilizing members.

Student Learning Outcome:

Students will develop a strategic plan to build power for their union to organize and mobilize members for contract and political campaigns.

LABR ST 020 WORKERS' RIGHTS (3) CSU

Lecture: 3 hour(s)

Basic legal rights for workers, including: wage and hour laws, overtime, leaves, workplace privacy including e-mail and computers, accommodating disabilities, including pregnancy, and combating sexual harassment and employment discrimination.

Student Learning Outcome:

Students will identify workers' rights deriving from federal, California and local labor laws.

LABR ST 021 THE WORKING CLASS AND CINEMA (3) UC:CSU

Lecture: 3 hour(s)

This course will examine feature film portrayals of the working class and labor unions. Students will learn to evaluate how popular culture dramatizes the struggle for workers rights and analyze how the movies have shaped public perception and values.

Student Learning Outcome:

The student will be able to describe how Hollywood portrayals affect Americans' views of unions.

LABR ST 101 INTRODUCTION TO UNIONS (1) CSU

Lecture: 1 hour

Overview of union impact on wages, benefits, working conditions and public policies by industry. Surveys basic union structures, operation and governance.

Student Learning Outcome:

Students will identify the role of unions in society and how unions work in a particular industry.

LABR ST 102 CONTRACT NEGOTIATIONS SKILLS (1) CSU

Lecture: 1 hour

This course covers the basics of union contract negotiations, including preparation of demands, negotiations strategies and tactics, contract language, and major bargaining trends.

Student Learning Outcome:

Students will learn and demonstrate the skills and techniques needed to bargain union contracts.

LABR ST 103 LABOR LAW UPDATE (1) CSU

Lecture: 1 hour

This course covers recent changes in labor law related to labor relations, state and local bargaining, federal, state and local labor boards, employment and discrimination, union organizing, and campaign election laws.

Student Learning Outcome:

The student will be able to identify recent changes in labor relations and related laws which govern the relationships between labor unions, employees and employers

LABR ST 104 CURRENT ISSUES FOR LABOR (1) CSU

Lecture: 1 hour

This course explores issues facing the American Labor Movement, including strategies to address them.

Student Learning Outcome:

Students will describe key issues facing Labor and strategies to address them.

LABR ST 105 GRIEVANCE HANDLING SKILLS (1) CSU

Lecture: 1 hour

The student will investigate, write and present union grievances.

Student Learning Outcome:

Students will acquire knowledge of the grievance process, including how to investigate, evaluate, document, write and present a union grievance.

LABR ST 106 LABOR AND DISASTER RELIEF (1) CSU

Lecture: 1 hour

Training labor representatives to respond to disasters, emergencies, acts of terrorism or union/employer economic actions through utilizing appropriate community, public and private resources and agencies.

Student Learning Outcome:

Students will be able to identify public and private agencies that provide assistance to members in need. Students will be able to develop a program to assist your members in need.

LABR ST 107 ORGANIZING FOR POLITICAL ACTION (1) CSU

Lecture: 1 hour

A primer for political activists: phone banks, precinct walks, polling, get out the vote, and vote-by-mail, campaign financing regulations, and communication strategies to mobilize members and the public.

Student Learning Outcome:

The student will be able to identify the essential elements of a grassroots political campaign and how to recruit and mobilize members.

LABR ST 108 LABOR AND GLOBALIZATION (1) RPT 3

Lecture: 1 hour

Explores how globalization affects the economy and jobs.

Student Learning Outcome:

Students will be able to describe current economic issues regarding globalization and labor strategies to address the issues.

LABR ST 109 UNION BUILDING STRATEGIES (1) CSU

Lecture: 1 hour

Skills and techniques to build a strong union through strategic planning, leadership development, communication techniques, 1-to-1 techniques.

Student Learning Outcome:

Student will develop a plan to organize and build strong unions.

LABR ST 113 UNION LEADERSHIP SKILLS (1) CSU

Lecture: 1 hour

Basic leadership skills for building influence and advancing in your union. Includes strategic planning, parliamentary procedure, running effective meetings, communications and public speaking.

Student Learning Outcome:

Students develop leadership skills to be effective union leaders.

LABR ST 114 WORKER'S LEGAL RIGHTS (1) CSU

Lecture: 1 hour

Basic workers' rights such as privacy, leaves, wage and hour laws, accommodating disabilities, including pregnancy and protections against wrongful discharge, etc.

Student Learning Outcome:

Students will be able to identify and explain the basic legal rights and protections of workers.

LABR ST 115 WORKPLACE HEALTH AND SAFETY (1) CSU

Lecture: 1 hour

Strategies to identify and address current issues in workplace health and safety, such as stress, understaffing, workload, chemical hazards and ergonomic problems. Strategies covered: hazard identification, legal rights, Cal/OSHA, contract language, effective Health & Safety Committees, outside resources, and training programs.

Student Learning Outcome:

The student will be able to identify and create an action plan to address workplace health and safety hazards.

LABR ST 118 EMPLOYEE BENEFITS PLANS (1) CSU

Lecture: 1 hour

This course Cover employee health and retirement plans: how they work, how they are funded, how workers can maximize their benefits, proposed changes in these plans, and labor's role in negotiating and preserving employee benefits.

Student Learning Outcome:

The student will list and describe the three basic elements of employee retirement security - employer based pensions, social security, and personal savings. The student will recognize how health plans are negotiated, funded, and maintained.

LABR ST 121 LABOR COMMUNICATIONS (1) CSU

Lecture: 1 hour

This course surveys methods and techniques that modern labor organizations use in e-communications, including web sites, text messaging, Twitter and Facebook, list serves, and e-blasts.

Student Learning Outcome:

The student will be able to list and explain the different new media tools currently available.

LABR ST 122 FRAMING THE MESSAGE FOR LABOR (1) CSU

Lecture: 1 hour

Students examine the language of labor and progressive action and learn to sharpen the message to broaden public support, build power, and gain political results.

Student Learning Outcome:

The student will be able to craft effective messages based on the union's goals and audience assessment.

LABR ST 123 STEWARD TRAINING (1) CSU

Lecture: 1 hour

In this course, students will survey the role of union stewards and practice basic skills necessary. Students will overview skills and procedures for communicating with members, processing grievances, solving problems, organizing and mobilizing members.

Student Learning Outcome:

Students will employ the steps necessary to handle employee grievance under a union contract. Students will be able to develop a plan to mobilize members.

LABR ST 125 LABOR ARBITRATION (1) CSU

Lecture: 1 hour

The arbitration process covers: selection and authority of arbitrators, preparation and elements of cases, how arbitrators decide cases, settlement techniques, and tips for effective use of arbitration.

Student Learning Outcome:

The student will be able to prepare and present a case for labor arbitration.

LABR ST 126 ISSUES IN LABOR ARBITRATION (1) CSU RPT 3

Lecture: 1 hour

This course provides an overview of the two major issues in arbitration: discipline and discharge cases, covering: just cause, absenteeism, insubordination, substance abuse, and theft/dishonesty.

Student Learning Outcome:

The student will be able to evaluate facts and contract language to present an effective discipline and discharge case.

LABR ST 127 WORKER'S COMPENSATION (1) CSU

Lecture: 1 hour

The course provides a basic understanding of how Workers Compensation works, including: types of injuries and disability benefits, medical care, rehabilitation and financial support; and procedures for filing a claim and appeals.

Student Learning Outcome:

Students will describe basic California Workers' Comp benefits, procedures, and how to file claims.

LABR ST 128 SEXUAL HARASSMENT AND DISCRIMINATION (1) CSU RPT 1

Lecture: 1 hour

This course surveys sexual harassment and job discrimination including: criteria for claims, the law, court decisions, and protective agencies, policies and procedures for prevention.

Student Learning Outcome:

The student will be able to describe the legal elements of employment discrimination and sexual harassment and identify ways for employers, employees and unions to prevent job discrimination.

LABR ST 132 STRATEGIC BARGAINING (1) CSU

Lecture: 1 hour

Building bargaining power through the strategic use of leverage and pressure tactics, such as power analysis and member and community involvement.

Student Learning Outcome:

Students will develop a strategic contract campaign which includes pressure and leverage techniques.

LABR ST 134 CALIFORNIA WORKERS' RIGHTS (1) CSU

Lecture: 1 hour

This course examines how the California Labor Code extends basic rights beyond federal law, including: minimum wage, maximum hours, timely pay, overtime and meal periods, right to know, parental and other leave rights, and enforcement procedures.

Student Learning Outcome:

Students will learn and demonstrate an understanding of California labor laws and protections, leaves and enforcement procedures.

LABR ST 136 WHEN THE PAYCHECK STOPS (1) CSU

Lecture: 1 hour

Union representatives occasionally must counsel members when the paycheck stops due to strikes, layoff, or plant closure. This course overviews professional services available for referral and teaches strategies for negotiating with landlords, mortgage companies, utility companies and other creditors.

Student Learning Outcome:

Students will be able to identify public and private agencies that provide assistance to members in need. Students will be able to develop a program to assist your members in need.

LAW

LAW 018 MARRIAGE AND FAMILY LAW (3) CSU

Lecture: 3 hour(s)

Students will examine and evaluate the ramifications of marriage, legal separation, divorce, custody and support, adoption and guardianship on parental prerogatives and/or their statuses and capacities as legally recognized adults.

Student Learning Outcome:

Upon successful completion of this course a student will be able to: 1. Brief family law cases 2. Prepare legal documents, complete legal forms pertaining to marriage dissolution, or domestic violence, or modification of child support and custody orders.

LAW 038 CRIMINAL LAW & PROCDEDURE (3)

Lecture: 3 hour(s)

This course will introduce the student to Criminal Law and Criminal Procedure. The student will learn the elements of a crime that must be proven as to the allegations of the commission of that particular crime. The student will learn the regulatory procedures, both federal and state, that must be followed in order to realize criminal culpability. The student will also examine the roles of the parties to a criminal action.

Student Learning Outcome:

1) Student will be able to define a crime in terms of its elements and properly classify it. 2) Student will be able to determine if the parties to a crime have met their requisite juridical obligations and procedures in defending against the allegation of having engaged in a criminal act.

LEARNING SKILLS

LRNSKIL 002B ENGLISH FUNDAMENTALS (1) NDA

Lab: 3 hour(s)

This course covers the standard English writing conventions and language structure including grammar, punctuation, capitalization, spelling mechanics, and sentence structure. Students learn how to write simple, compound, and complex sentences. The past, present, and future present and progressive tenses are introduced. Students also learn to recognize and correct sentence fragments, run-on sentences, and demonstrate proofreading skills. Students are introduced to paragraph structures and learn to identify topic sentences, supporting details, and concluding sentences.

Student Learning Outcome:

Students will demonstrate the ability to: - Write clear and structurally accurate sentences using subject-verb sentence patterns, subject-verb object (direct and indirect) sentence patterns. - Identify and use the basic parts of speech in the context of the sentences. - Identify different types of clauses and phrases and use them in clear and structurally accurate sentences. - Use correct punctuation rules. - Write clear and structurally accurate simple, compound, complex sentences using conjunctions and subordinate clauses. - Utilize proof-reading skills. - Identify the basic parts of a paragraph and write cohesive paragraphs.

LRNSKIL 010B MATHEMATICS FUNDAMENTALS (1) NDA

Lab: 2 hour(s)

This is a lab course which focuses on the skills needed to succeed in computing and understanding the relationship between fractions, decimals, ratios, and percentages. Students will add, subtract, multiply, and divide related problems and use strategies, skills and concepts in finding solutions to word problems and real world situations. This class provides individualized and computer-assisted instruction. The course is repeatable up to three times to enhance skills and proficiencies and is the second in a sequence of three progressive modules which prepare students for academic and vocational success.

Student Learning Outcome:

1. Use appropriate learning skills to enhance math efficacy and success. 2. Identify the place value of whole numbers and how whole numbers and decimals relate to simple fractions.3. Compute with very large and very small numbers, decimals, and fractions and understand the relationship between decimals, fractions, and percents. 4. Express the relative magnitudes of numbers. 5. Perform calculations and solve problems involving addition, subtraction, and simple multiplication and division of fractions and decimals. 6. Solve problems involving addition, subtraction, multiplication, and division of whole numbers and understand the relationships among the operations. 7. Determine how to factor small whole numbers. 8. Use and interpret, mathematical symbols, and properties to write and simplify expressions and sentences. 9. Organize, represent, and interpret numerical and categorical data and clearly communicate their findings. 11. Make decisions about how to approach problems. 12. Use strategies, skills, and concepts in finding solutions. 13. Apply knowledge from particular problems to more generalized problems/situations.

LRNSKIL 010C MATHEMATICS FUNDAMENTALS (1) NDA

Lab: 2 hour(s)

This basic math fundamental course focuses on the learning skills needed to succeed in pre-algebra up to beginning algebra, and is designed to help students develop symbolic reasoning and calculations with symbols that are central in algebra and geometry. This open-entry/open-exit class provides individualized and computer-assisted instruction. The course is repeatable up to three times to enhance skills and proficiencies. This course is the third in a sequence of three progressive modules and prepares students for academic and vocational success.

Student Learning Outcome:

1 Use appropriate learning skills to enhance math efficacy and success. 2. Compute and interpret very large and small numbers, positive and negative integers, 3. Perform calculations and solve problems using exponents, roots, and scientific notation. 4. Use variables in simple expressions and equations, compute the value of the expression for specific values of the variable, and plot and interpret the results 5. Identify and compute the volumes and areas of simple objects 6. Identify, describe, and classify the properties of, and the relationships between, plane and solid geometric figures 7. Display, analyze, compare, and interpret different data sets, including data sets of different sizes 8. Choose decisions on how to approach problems 9. Use strategies, skills, and concepts in finding solutions for equations. 10. Apply knowledge to generalized situations.

LRNSKIL 068 STUDY SKILLS (1) NDA

Lecture: 0.5 hour(s); Lab: 1 hour

This course helps students develop basic study skills needed for college success. Study skills covered include but are not limited to: time management, organization skills, vocabulary building, reading, note taking, and listening strategies.

Student Learning Outcome:

Students will be able to demonstrate the ability to: 1. Identify class requirements and how they apply to them as a learner. 2. Identify their personal learning strengths and weaknesses 3. Identify and utilize strategies toward improvement 4. Set up an effective time management tool 5. Identify and utilize at least 3 organizational strategies appropriate to meet their personal and academic needs 6. Identify and apply vocabulary building strategies based on reading level 7. Identify and use appropriate reading strategies based on the type of reading material 8. Identify and use appropriate and effective note taking strategies based on the given context 9. Identify and use appropriate listening strategies

LEARNING SKILLS LAB

LRNSK 001B READING (1) NDA

Lab: 3 hour(s)

This course is an intermediate reading course which focuses on developing reading comprehension, analysis, and interpretation skills. Students develop strategies that assist them in understanding and responding to intermediate level reading material. Students will learn reading skills including: inferencing, predicting outcome, drawing conclusions, comparing and contrasting, recognizing cause and effect, and paraphrasing. This course is the second in a sequence of three progressive modules and prepares students for academic and vocational success.

Student Learning Outcome:

Upon successful completion of this course, students will be able to: 1. Identify main idea and supporting details. 2. Assess context clues to determine meaning, make inferences, and draw conclusions. 3. Demonstrate the ability to compare and contrast reading prose while determining cause and effect. 4. Demonstrate the ability to paraphrase and summarize reading prose.

LRNSK 001C READING (1) NDA RPT 2

Lab: 3 hour(s)

This course focuses on developing advanced reading skills including interpretation, analysis, and evaluation of fictional and non-fictional prose. Students utilize strategies to improve their understanding of the structural features of expository and narrative texts. This course is the third in a sequence of three progressive modules and prepares students for academic and vocational success.

Student Learning Outcome:

Interpretation Students will demonstrate the ability to utilize interpretation when reading various types of prose. Analysis Students will be able to analyze and synthesize reading prose. Evaluation Students will be able to critically evaluate and distinguish fact and opinion in reading prose.

LRNSK 002B ENGLISH FUNDAMENTALS (1) NDA RPT 1

Lab: 3 hour(s)

This course covers the standard English writing conventions and language structure including grammar, punctuation, capitalization, spelling mechanics, and sentence structure. Students learn how to write simple, compound, and complex sentences. Students also learn to recognize and correct sentence fragments, run-on sentences, and demonstrate proofreading skills. Students are introduced to paragraph structures and learn to identify topic sentences, supporting details, and concluding sentences.

Student Learning Outcome:

Paragraph Writing Assignment Produce an MLA page formatted typed written unified and cohesive paragraph on an assigned topic with a topic sentence, relevant supporting details, and a concluding sentence. Grammar Assessment Use grammar and structural knowledge to successfully complete a post-grammar test.

LRNSK 002C ENGLISH FUNDAMENTALS (1) NDA

Lab: 3 hour(s)

This course focuses on the fundamentals of academic writing. It reinforces basic skills such as the correct use of punctuation, spelling, and writing simple, compound, and complex sentence structures. Students incorporate these skills to develop and write paragraph responses that have a topic sentences, supporting details, and conclusions. Students are also introduced to Basic MLA formatting and work on Moodle activities and assignments.

Student Learning Outcome:

1. Writing Assignment: A paragraph of 250-300 words following the steps in the writing process (prewriting, drafting, revising, editing and proofreading) to produce typed academic paragraphs using MLA page format. 2. Grammar Test: Use grammar and structural knowledge to successfully complete a post-grammar test.

LRNSK 010B MATH FUNDAMENTALS B (1) NDA

Lab: 2 hour(s)

This is a lab course which focuses on the skills needed to prepare students for academic and vocational success by teaching the ability to compute, understand, and apply the relationship between fractions, decimals, ratios, and percentages. Students will add, subtract, multiply, and divide related problems and utilize effective learning strategies in order to find solutions to word problems and real world situations. This course is the second in a series of three progressive Learning Skills courses offering basic math to advanced math curriculum. This class provides individualized and computer-assisted instruction.

Student Learning Outcome:

1. Identify the procedures and show ability to compute and solve application and word problems in fractions. 2. Identify the procedures and show ability to compute and solve application and word problems in decimals. 3. Identify the procedures and show ability to compute and solve application and word problems in percentages and ratios.

LRNSK 010C MATH FUNDAMENTAL C (1) NDA

Lab: 3 hour(s)

This basic math fundamental course focuses on the learning skills needed to succeed in pre-algebra up to beginning algebra, and is designed to help students develop symbolic reasoning and calculations with symbols that are central in algebra and geometry. This class provides individualized and computer-assisted instruction. The course is repeatable up to three times to enhance skills and proficiencies. This course is the third in a sequence of three progressive modules and prepares students for academic and vocational success.

Student Learning Outcome:

1. Compute, interpret and solve problems related to positive and negative integers, exponents, roots, and scientific notation. 2. Compute and interpret algebraic formulas. 3. Identify, describe, and classify the properties of, and the relationships between, plane and solid geometric figures.

LRNSK 066 GED PREPARATION: SOCIAL STUDIES & SCIENCE (1) NDA RPT 1

Lab: 3 hour(s)

This course is designed to assist students prepare for the Social Studies component of the General Education Development (GED) examination. This course enhances students' ability to read, understand, and use information in the context of social studies. Students will focus on the five basic social studies content areas: United States history, civics and government, economics, and geography. Grades are based on a credit/no-credit basis.

Student Learning Outcome:

Students will: Social Studies 1. Apply reading comprehension skills to prose of practical and historic documents. 2. Complete multiple choice, drag and drop, hot spot, and fill in the blank questions to answer questions on Civics and government, United States history, Economics, Geography and the world. Science: Apply reading and writing skills to show analysis and understanding of data representation, inference skills, and problem solving techniques.

LIBRARY SCIENCE

LIB SCI 101 LIBRARY RESEARCH METHODS (1) CSU

Lecture: 1 hour

This is an introductory course designed to teach students basic library research methods. This course will provide students with a broad knowledge of the use of libraries utilizing both print and electronic information sources. Information search techniques and specialized information tools are examined with an emphasis on finding research resources, writing research papers, citation styles, and plagiarism.

Student Learning Outcome:

At the completion of the course, students will be able to: -Access books and articles electronically -Gather, identify, and analyze library resources -Appraise a Web site for its currency, accuracy and authority -Evaluate sample paraphrases to detect plagiarism and explain how a paraphrase is or is not plagiarized -Construct MLA and APA citations and a Works Cited List

MACHINE SHOP - CNC

MSCNC 111 PRINCIPLES OF MACHINE TOOLS I (2) CSU

Lecture: 1.5 hour(s); Lab: 1.5 hour(s)

MSCNC 111 (Principles of Machine Tools I) is a course that will engage students with Machine Shop specific topics including; safety practices, hand tools, precision measuring tools, set-up and operation of band saws, drill presses, lathes, mills, pedestal grinders, power saws as well as computer numerical control (CNC) machine tools. Theoretical and manipulative exercises will challenge students' understanding of practical subject matter.

Student Learning Outcome:

Students will utilize applied machine shop theory to identify and know the safe use of various basic hand and machine tools

MSCNC 112A TECHNOLOGY AND APPLICATION OF MACHINING IA (3)

Lab: 9 hour(s)

MSCNC 112A (Technology and Application of Machining IA) is a lab course that will engage students with machine shop specific topics including; shop safety, speeds, feeds, set-up, operation and technology of basic machine tools. Band saws, drill presses, lathes, mills, pedestal grinders, power saws as well as computer numerical control (CNC) machine tools will be introduced and used by the students. Along with the machine tools, students will be expected to identify, manipulate and properly use and read basic hand tools and precision measuring instruments.

Student Learning Outcome:

Students will demonstrate knowledge of safety practices in the shop

MSCNC 112B TECHNOLOGY AND APPLICATION OF MACHINING (CAD) IB (1)

Lab: 3 hour(s)

MSCNC 112B (Technology and Application of Machining (CAD) IB) is a course that will engage students with Machine Shop specific topics related to computer aided design (CAD). Topics will include solid model creation, blueprint creation, dimensioning, product development and assembling individual parts into completed assemblies.

Student Learning Outcome:

Students will utilize the computer aided design (CAD) software to create a solid model and generate a blueprint

MSCNC 114 PRINT INTERPRETATION & SKETCHING (BLUEPRINT I) (3) CSU

Lecture: 3 hour(s)

MSCNC 114 (Print Interpretation & Sketching (Blueprint I)) is a course that will engage students in Machine Shop topics that are related to blueprint reading, interpretation and sketching techniques. Mechanical drawings of multiple views, different drawing standards, dimensioning techniques, as well as sketching techniques for free hand drawings will also be covered.

Student Learning Outcome:

Students will utilize industry specific blueprint reading skills to visualize and communicate part shape, form and function

MSCNC 115 BASIC APPLIED MATHEMATICAL CALCULATIONS (3) CSU

Lecture: 3 hour(s)

MSCNC 115 (Basic Applied Mathematical Calculations) is a course that will engage students with machine shop specific topics related to calculations and calculator manipulation. Number theory, inch & metric calculations, algebra, ratios & proportions and fractions will all be covered in this course.

Student Learning Outcome:

Student will utilize applied machine shop calculations to perform addition, subtraction, multiplication & division of whole numbers, decimals, fractions & mixed numbers

MSCNC 121 PRINCIPLES OF MACHINE TOOLS II (2) CSU

Lecture: 1.5 hour(s); Lab: 1.5 hour(s)

MSCNC 121 (Principles of Machine Tools II) is a course that will engage students with Machine Shop specific topics including; safety practices, Principles of lathes, milling machines, attachments, and special lathe and milling operations. Introduction to other special machinery and basic CNC programming will also be covered.

Student Learning Outcome:

Students will utilize applied machine shop theory to identify and know the safe use of various milling and turning machines as well as their accessories.

MSCNC 122A TECHNOLOGY AND APPLICATION OF MACHINING IIA (3) CSU

Lab: 9 hour(s)

MSCNC 122A (Technology and Application of Machining IIA) is a course that will engage students with Machine Shop specific topics, such as implementation of safety, speeds, feeds, form tools, setups including related attachments and accessories for lathe and milling machine operations. Inspection techniques and CNC machine set-up and operations will also be covered.

Student Learning Outcome:

Students will utilize CNC programming techniques to write and run part programs

MSCNC 122B TECHNOLOGY AND APPLICATION OF MACHINING IIB (1)

Lab: 3 hour(s)

MSCNC 122B (Technology and Application of Machining IIB) is a course that will engage students with Machine Shop specific topics related to computer aided design (CAD). Topics will include geometric dimensioning and tolerancing (GD&T), section views, auxiliary views and advanced modeling and assembling techniques.

Student Learning Outcome:

Students will utilize a computer aided design (CAD) program to create intermediate part models, product assemblies and related blueprints

MSCNC 124 PRINT INTERPRETATION AND INSPECTION (BLUEPRINT II) (3) CSU

Lecture: 3 hour(s)

MSCNC 124 (Print Interpretation and Inspection (Blueprint II)) is a course that will engage students in Machine Shop specific topics regarding; advanced interpretation of machine shop-CNC related drawings with introduction to inspection, geometric tolerancing, and SPC.

Student Learning Outcome:

Students will utilize industry accepted standards for reading, form, fit and function of parts described on MSCNC related blueprints

MSCNC 125 INTERMEDIATE APPLIED MATHEMATICAL CALCULATIONS (3) CSU

Lecture: 3 hour(s)

MSCNC 125 (Intermediate Applied Mathematical Calculations) is a class that will engage students with Machine Shop specific topics such as; algebraic formulas related to good machining practices and geometric relationships and formulas are used to get correct cutting positions and programming code.

Student Learning Outcome:

Students will utilize applied machine shop calculations to perform machine shop related algebraic & geometric calculations

MSCNC 131A PRINCIPLES OF MACHINE TOOLS IIIA (2)

Lecture: 1.5 hour(s); Lab: 1.5 hour(s)

MSCNC 131A (Principles of Machine Tools IIIA) is a course that will engage students with Machine Shop specific topics including; shop safety, engine lathe, milling machine, vertical milling machine, grinders as well as materials, inspection techniques and machining topics. Theoretical and manipulative exercises will challenge students' understanding of practical subject matter.

Student Learning Outcome:

Students will utilize applied machine shop theory to identify and know the safe use of various materials, sewing machines, grinding machines & specialized tools and equipment

MSCNC 131B PRINCIPLES OF MACHINE TOOLS (CNC) IIIB (3)

Lecture: 3 hour(s)

MSCNC 131B (Principles of Machine Tools (CNC) IIIB) is a course that will engage students with Machine Shop specific topics related to machine tool programming. Both numerical control (NC) and computer numerical control (CNC) machine tools must have 'part programs' written for them to perform their intended function and create parts that are correct in fit, form and function.

Student Learning Outcome:

Students will utilize CNC programming knowledge to draw a picture that represents the "part" that the machine tool program would make.

MSCNC 132A TECHNOLOGY AND APPLICATION OF MACHINING IIIA (3)

Lab: 9 hour(s)

MSCNC 132A (Technology and Application of Machining IIIA) is a course that will engage students with Machine Shop specific topics related to the set-up, operation, and/or programming of grinding machines, milling machines, engine lathes, CNC machining centers, CNC turning centers and EDM machines. Assigned projects will allow students to continue to build their skills on previously encountered machine tools as well as being introduced to new technologies, including unconventional machining techniques.

Student Learning Outcome:

Students will utilize industry accepted procedures to create shop projects

MSCNC 132B TECHNOLOGY AND APPLICATION OF MACHINING (CAM) IIIB (1)

Lab: 3 hour(s)

MSCNC 132B (Technology and Application of Machining (CAM) IIIB) is a course that will engage students with Machine Shop specific topics regarding computer aided manufacturing (CAM) computer programs. Students will create geometry, cutting tools, process information in order for the CAM program to create cutter paths that will create the correct fit, form and function on the part.

Student Learning Outcome:

Students will utilize the computer aided manufacturing (CAM) program to create simple geometry, cutting tools and processes and then have the CAM program write a part program

MSCNC 135 ADVANCED APPLIED MATHEMATICAL CALCULTIONS (3) CSU

Lecture: 3 hour(s)

MSCNC 135 (Advanced Applied Mathematical Calculations) is a course that will engage students with Machine Shop specific topics as they relate to trigonometric and compound angular calculations.

Student Learning Outcome:

Students will utilize applied machine shop calculation problems related to machine shop trigonometric problems and programming related problems

MSCNC 141 PRINCIPLES OF MACHINE TOOLS (CNC) IV (2) CSU

Lecture: 1.5 hour(s); Lab: 1.5 hour(s)

MSCNC 141 (Principles of Machine Tools (CNC) IV) is a course that will engage students with Machine Shop specific topics: Advanced theory related to safety, programming, set-up and operation of CNC machine tools. Introduction to specialized machining for intricate parts and/or tool and die and/or mold making will also be covered.

Student Learning Outcome:

Students will utilize applied machine shop theory to program various computer numerical control machine tools

MSCNC 142A TECHNOLOGY AND APPLICATION OF MACHINING IV A (3)

Lab: 9 hour(s)

MSCNC 142A (Technology and Application of Machining IV A) is a course that will engage students with Machine Shop specific topics: advanced safety, application, programming, set-up and operation of CNC lathes and milling machines. Set-up and operation of precision machine tools for intricate parts and/or tool and die and/or plastic mold fabrication will also be covered.

Student Learning Outcome:

Students will utilize industry approved techniques and procedures to program, set-up and machine several parts to create a multiple part assembly.

MSCNC 142B TECHNOLOGY AND APPLICATION OF MACHINING IV B (1)

Lab: 3 hour(s)

MSCNC 142B (Technology and Application of Machining IV B) is a course that will engage students with Machine Shop specific topics: shop safety, advanced manufacturing techniques, CNC operations, advanced inspection techniques and manufacturing economy.

Student Learning Outcome:

Students will utilize knowledge of computer aided design (CAD) and computer aided manufacturing (CAM) programs to model, generate a part program and then cut the part on a CNC machine tool

MSCNC 161A COMPUTER ASSISTED MACHINE PROGRAMMING (CAM) IA (3)

Lecture: 3 hour(s)

MSCNC 161A (Computer Assisted Machining Programming (CAM) IA)is a course that will engage students with Machine Shop specific topics: application of Computer Aided Manufacturing (CAM) systems for development of computer numerical control (CNC) programs for complex two and three axis machined parts. Use of 3-D graphics and part verification software systems will also be explored.

Student Learning Outcome:

Students will utilize the computer aided manufacturing (CAM) program to generate a part program for a specified CNC machine tool control

MSCNC 161B COMPUTER ASSISTED MACHINE PROGRAMMING (CAM) IB (3) CSU

Lecture: 3 hour(s)

MSCNC 161B (Computer Assisted Machine Programming (CAM) IB) is a course that will engage students with Machine Shop specific topics: advanced topics of computer aided design (CAD), computer aided manufacturing (CAM) and computer numerical control (CNC) and the integration of these three technologies in modern manufacturing.

Student Learning Outcome:

Students will utilize the computer aided manufacturing (CAM) program to generate a part program to run a CNC machine with a specified control

MANAGEMENT

MGMT 002 ORGANIZATION AND MANAGEMENT THEORY (3) CSU

Lecture: 3 hour(s)

As part of the study of industrial organization, this course covers such topics as financing enterprise, building the internal organization, and plant layout. The study of industrial operations includes production planning and control, inventory and materials handling, quality control, and methods analysis and work simplification. In addition, this course includes a consideration of the principles of industrial relations and personnel management, office management, and internal coordination and environmental issues.

Student Learning Outcome:

1. Students will understand the overview of organization development. 2. Student will understand the nature of planned change in organizations. 3. Student will be able to diagnose organizations along with groups and jobs. 4. Students will understand individual, interpersonal and group process approaches in organizations. 5. Student will be able to evaluate the restructuring of an organization. 6. Student will understand work design and performance management. 7. Student will understand organizational transformation that includes cultural change, organization learning and knowledge management. 8. Student will understand organizational development in global settings. 9. Students will be able to examine future trends in organizational development.

MGMT 013 SMALL BUSINESS ENTREPRENEURSHIP (3) CSU

Lecture: 3 hour(s)

This course will present a systematic approach to successful small business operation. The course covers personnel evaluation, pre-ownership evaluation, management and leadership, financing, location, taxation, records, employees, purchasing, advertising, sales, and credit. The course emphasizes the development of a business plan.

Student Learning Outcome:

Students will research, compose, and write a comprehensive business plan. Student will apply the principles of marketing, financial requirements, operations, and management to a small business. Student will analyze and evaluate the competitive environment and identify direct competition. Student will understand, evaluate and compare starting a business versus buying an ongoing business.

MGMT 033 HUMAN CAPITAL MANAGEMENT (3) CSU

Lecture: 3 hour(s)

This course is concerned with the development of the personnel function, personnel tools and records, and the use of psychology in personnel administration. Training and education of employees, incentives, special problems of personnel administration and management, employee representation, and social controls are included as topics of discussion.

Student Learning Outcome:

1. Students will learn the environment of Human Resource Management by being able to demonstrate an understanding of the Human Resource Management functions in organizations. 2. Students will learn the elements of planning, recruiting and staffing as they relate to Human Resource Management. 3. Students will learn and understand the elements of workplace training, performance management and career planning.

MGMT 941 COOPERATIVE EDUCATION - MANAGEMENT (4) CSU

Lecture: 4 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

MANUFACTURING & INDUSTRIAL TECHNOLOGY

MIT 220 INTRODUCTION TO ROBOTICS (3) CSU

Lecture: 2 hour(s); Lab: 2 hour(s)

This introductory course in robotics emphasizes hands-on experience to build a basic functional robot. Students learn about electric motors, servos, sensors, switches, actuators and their application in a robot. Students learn computer programming and its integration into a working robotic unit. The course also includes mechanical assembly, connecting electronic components, wiring and soldering, and testing.

Student Learning Outcome:

1. Student will construct a fully functional robot by assembling components such as Servo motors, sensors, switches and actuators. 2. Student will utilize learned algorithms to program a Basic Stamp micro-controller and integrate it into a fully functional robot.

MIT 221 SEMI-AUTOMATIC WELDING I (GMAW) IN ADVANCED MANUFACTURING (5) CSU

Lecture: 1.5 hour(s); Lab: 9 hour(s)

This course provides detailed knowledge including welder's performance qualifying skills using the Gas Metal Arc Welding (MIG) process used in the modern manufacturing industry. This course follows the American Welding Society Curriculum Guide for the Training of Welding Personnel: Level I-Entry Welder leading to qualifications outlined in American Welding Society (AWS) D1.1-Structural Steel Welding Code and the American Society of Manufacturing Engineers (ASME) Section IX Code.

Student Learning Outcome:

1. Students will perform a safety inspection while identifying GMAW and equipment components. 2. Upon completion of this course students will (1) add, subtract, multiply, divide whole numbers, fractions, mixed numbers and decimals, (2) round off decimals to one or more places, (3) use measuring devices to determine size, length, angle or distance, (4) use a calculator to perform basic arithmetic operations, and (5) convert mixed numbers fractions to decimals and vice versa. 3. Students will pass the GMAW-S welder performance qualification test (AWS EDU-3) on carbon steel. 4. Students will pass the GMAW welder performance qualification test (AWS EDU-2) on carbon steel.

MIT 222 GAS TUNGSTEN ARC WELDING I IN ADVANCED MANUFACTURING (5) CSU

Lecture: 1.5 hour(s); Lab: 9 hour(s)

This course is designed to provide students with basic performance qualification skills in Gas Tungsten Arc Welding (TIG) needed for employment in the modern manufacturing industry. This course follows AWS standardized curriculum leading to students performance qualifications to the AWS Specifications for Fusion Welding for Aerospace Applications.

Student Learning Outcome:

1. Student will perform a safety inspection while identifying GTAW equipment components. 2. Students will interpret basic elements of a drawing or sketch. 3. Students will pass the welder performance qualification test (Module 3) on carbon steel.

MIT 223 SEMI-AUTOMATIC WELDING II (FCAW) IN ADVANCED MANUFACTURING (5) CSU

Lecture: 1.5 hour(s); Lab: 9 hour(s)

This course provides detailed knowledge including welder's performance qualifying skills using the Flux-Cored Arc Welding process used in the modern manufacturing industry. This course follows the American Welding Society Curriculum Guide for the Training of Welding Personnel: Level I-Entry Welder leading to qualifications outlined in American Welding Society (AWS) D1.1-Structural Steel Welding Code and the American Society of Manufacturing Engineers (ASME) Section IX Code.

Student Learning Outcome:

1. Students will perform a safety inspection while identifying GMAW and FCAW equipment components. 2. Upon completion of this course students will make metric system measurements, geometric measurements, angular measurements, and bends, stretch outs, economical layout, and takeoffs. 3. Students will pass the FCAW welder performance qualification test (AWS EDU-1) on carbon steel using both FCAW-S and FCAW-G processes.

MIT 224 GAS TUNGSTEN ARC WELDING II IN ADVANCED MANUFACTURING (5) CSU

Lecture: 1.5 hour(s); Lab: 9 hour(s)

This course is designed to provide students with advanced performance qualification skills in Gas Tungsten Arc Welding (TIG) needed for employment in the modern manufacturing industry. This course follows AWS standardized curriculum leading to students performance qualifications to the AWS Specifications for Fusion Welding for Aerospace Applications.

Student Learning Outcome:

1. Students will interpret advanced elements of a drawing or sketch. 2. Students will pass the GTAW welder performance qualification test (AWS EDU-4) on stainless steel. 3. Students will pass the GTAW welder performance qualification test (AWS EDU-5) on aluminum.

MIT 225 GAS TUNGSTEN ARC WELDING III (PIPE) IN ADVANCED MANUFACTURING (5) CSU

Lecture: 1.5 hour(s); Lab: 9 hour(s)

This course provides the advance knowledge needed to weld pressure vessels using the Gas Tungsten Arc Welding (TIG) process. This course follows the American Welding Society Curriculum Guide for the Training of Welding Personnel: Level II-Advance Welder, leading to welder's qualifications outlined in the American Society of Manufacturing Engineers (ASME) Section IX Code.

Student Learning Outcome:

1. Students will interpret advanced elements of a drawing or sketch. 2. Students will pass the GTAW Welder's Performance Qualification Test on Pipe in the Fixed 45Â° Position to AWS Standard- Level II- Advance Welder-Workmanship Test, (AWS2-5) and (AWS2-6).

MIT 226 INTRODUCTION TO ROBOTIC WELDING AND AUTOMATION (5) CSU

Lecture: 1.5 hour(s); Lab: 9 hour(s)

The course provides fundamental theory and hands-on application of robotic welding and automation. Emphasis is placed on safety awareness, programing techniques, and basic gas metal arc welding applications using a six-axis robotic welding systems.

Student Learning Outcome:

1. Student will have understanding of the robotic interfacing system. 2. Students will have the ability to make changes to the weld data, torch angles, electrode stickout, starting techniques, and other welding variables.

MARKETING

MARKET 001 PRINCIPLES OF SELLING (3) CSU

Lecture: 3 hour(s)

This course includes the development of the fundamental principles of wholesale and specialty selling, including such phases as developing the sales plan, securing prospects, effective goods and service presentation, product analysis, closing the sale, and service after the sale.

Student Learning Outcome:

Student will be able to determine appropriate technique to suit the sale of a product or service.

MARKET 011 FUNDAMENTALS OF ADVERTISING (3) CSU

Lecture: 3 hour(s)

This course will provide students the introduction to the role of advertising in our economy. It gives a comprehensive overview of the planning and managing of advertising. The course also covers how the major forms of media, such as television, radio, newspapers, magazines, the Internet are integrated into the advertising campaign.

Student Learning Outcome:

Analyze and apply the advertising strategies and concepts in the advertising industry along with the core advertising components of the advertising agency, media, research and sales promotion services.

MARKET 021 PRINCIPLES OF MARKETING (3) CSU

Lecture: 3 hour(s)

This course will provide students a managerial approach to marketing principles. It covers marketing research, sales forecasting, sales cost analysis, domestic and international markets, customer motivation, production analysis, consumer and industrial markets, retailing and wholesaling, distribution channels, sales promotion and advertising, personal selling, pricing policies, market legislation and environment factors which impact marketing.

Student Learning Outcome:

Students will explain and analyze the marketing concepts and its core components.

MARKET 025 SMALL BUSINESS MARKETING INTERNSHIP (3) RPT 3

Lecture: 3 hour(s)

This course will provide students with the opportunity to test their entrepreneurial potential and experience firsthand what entrepreneurship entails. Students will immerse themselves in the entrepreneurial process by participating in a comprehensive real-world small business simulation and participating in an external internship provided by local small businesses. Students will also work with entrepreneurial faculty to successfully develop and launch their own small business in addition to receiving valuable knowledge, resources and one-on-one support to aid them in sustainable, long-term small business success.

Student Learning Outcome:

Students will be able to recognize entrepreneurial opportunities and demonstrate the understanding of how to launch their entrepreneurial career. Students will be able to utilize their critical thinking and problem solving abilities to develop a small business operations, marketing, human resources and financial plan, develop strategies for ongoing small business advancement and success, utilize computer technology to support small business management and determine relevant federal, state, and city licensing regulations and requirements.

MARKET 040 RETAIL MANAGEMENT (3)

Lecture: 3 hour(s)

This course provides a systematic approach to the principles and procedures of retailing, including a study of store location, store layout, store organization, buying, pricing, stock planning, and the retail communication mix.

Student Learning Outcome:

Students will be able to analyze and apply various marketing concepts in the industry of retail management, such as identification of market needs and/or wants and buying behavior. They will also understand marketing planning, retail strategies, and the retail mix to design, to develop and operate a retail business.

MATHEMATICS

MATH 105 ARITHMETIC (3) NDA

Lecture: 3 hour(s)

This course reviews fundamentals of arithmetic in college and business. Topics include basic operations with fractions, decimals, percent, and measurement. The course emphasizes problem solving techniques that are useful in practical situations.

Student Learning Outcome:

Upon the completion of the course students will be able to: Perform the four basic operations on rational numbers Apply and follow the mathematical principles and order of operations to evaluate numerical expressions involving rational number problems. Solve application problems by using critical-thinking skills

MATH 110 INTRODUCTION TO ALGEBRAIC CONCEPTS (5) NDA

Lecture: 5 hour(s)
Prerequisite: Placement Exam

This course discusses abstract ideas necessary for understanding algebra and reviews selected topics in arithmetic relevant to algebra. Students are introduced to fundamental notions of algebra including signed numbers, variables, simple equations, proportional reasoning, applications, and modeling. This course also includes instruction in mathematics study skills.

Student Learning Outcome:

Upon successful completion of this course 1. Students will define and manipulate signed number and variables. 2. Students will solve simple linear equations in one variable. 3. Students will locate signed numbers on the number line and use a number line to add and subtract signed numbers. 4. Students will apply a known formula to a given situation.

MATH 112 PRE-ALGEBRA (3) NDA

Lecture: 3 hour(s)
Prerequisite: Math 105

This course prepares students for their first course in Algebra. Topics include brief review of arithmetic, operations with signed numbers, evaluate and simplify variable expressions, solve linear equations in one variable, introduce number line, and apply known formulas to given situations in word problems.

Student Learning Outcome:

Upon successful completion of this course 1. Students will be able to define and manipulate signed numbers and variables. 2. Students will be able to solve simple linear equations in one variable. 3. Students will be able to locate signed numbers on the number line and use a number line to add and subtract signed numbers. 4. Students will be able to apply a known formula to a given situation.

MATH 113 ELEMENTARY ALGEBRA A (3)

Lecture: 3 hour(s)
Prerequisite: Mathematics 112

Topics include review of signed numbers, variables, the order of operations; addition and subtraction of polynomials; solve and graph linear equations, solve inequalities; solve systems of equations.

Student Learning Outcome:

1. Perform operations on real numbers and algebraic expressions 2. Apply and follow the mathematical principles, operations and strategies to write, solve, graph and interpret linear equations and inequalities. 3. Solve systems of linear equations in two variables. 4. Perform operations on polynomials 5. Solve application problems by using critical-thinking skills.

MATH 114 ELEMENTARY ALGEBRA B (3)

Lecture: 3 hour(s)
Prerequisite: Mathematics 113

The course covers multiplication and division of polynomials, factoring, rational expressions, radicals, quadratic, rational, and radical equations, and application problems. This course is the second half of Math 115. Math 113 and 114 together are equivalent to Math 115. Credit is allowed in only one of Math 115 or the Math 113/114 combination. Concurrent enrollment in Math 113 and 114 is not permitted.

Student Learning Outcome:

Perform operation on real numbers and algebraic expressions. Perform factoring on polynomial expressions. Apply and follow the mathematical principles, operations and strategies to solve nonlinear equations such as rational, radical and quadratic. Solve application problems by using critical thinking skills

MATH 115 ELEMENTARY ALGEBRA (5)

Lecture: 5 hour(s)
Prerequisite: Mathematics 110 or 112

Topics include signed numbers, variables, the order of operations; addition, subtraction, multiplication, and division of signed numbers and polynomials. Solve linear equations, inequalities, factoring, and graphs. Solve word problems, systems of equations, rational equations, radicals and quadratic equations.

Student Learning Outcome:

Upon successful completing this course: 1. The student will be able to define and manipulate linear expressions and polynomials. 2. The student will be able to solve any linear equation, factorable quadratic equations and various systems of two-variable linear equations. 3. The student will be able to plot points and graph linear equations on a Cartesian coordinate system. 4. The student will be able to set up linear equations representing situations, solve, justify, and interpret the solution in the context of the problem.

MATH 121 ELEMENTARY GEOMETRY FOR COLLEGE STUDENTS (3)

Lecture: 3 hour(s)
Prerequisite: Mathematics 115

This course is an introduction to Euclidean geometry and it is equivalent to one year of high school geometry. This course reviews the basic geometric construction, definitions, postulates, theorems and their proofs for triangles, parallel lines and circles.

Student Learning Outcome:

SLOs: Determine angle measures in different geometric figures. Construct geometric figures using a straightedge and compass. Write direct and indirect proofs of theorems and corollaries. Solve problems involving geometric figures using definitions, postulates, and theorems.

MATH 125 INTERMEDIATE ALGEBRA (5)

Lecture: 5 hour(s)
Prerequisite: Mathematics 114 or Mathematics 115

This course is a study of the properties of real numbers, laws of exponents, radicals, equations & inequalities in linear and quadratic form, system of equations, matrices, graphing in two variables, rational expressions & equations, complex numbers, conic sections & their graphs, exponential and logarithmic functions.

Student Learning Outcome:

1.- Solve Linear and nonlinear equations and inequalities by performing mathematical operations on complex numbers, algebraic, exponential and logarithmic expressions. 2.- Solve systems of linear equations using graphical and algebraic methods. 3.- Describe and analyze the characteristics of different types of functions. 4.- Solve mathematical application problems by applying critical thinking skills.

MATH 225 INTRODUCTORY STATISTICS (3) UC:CSU

Lecture: 3 hour(s)
Prerequisite: Mathematics 125

The course discusses basic concepts and techniques of descriptive and inferential statistics including sampling, probability, statistical distributions, tables and graphs, central limit theory, hypothesis testing, confidence interval estimation, correlation and regression.

Student Learning Outcome:

Test hypothesis for sample proportion, mean and standard deviation. Given a distribution, determine the probability of an event. Perform correlation and linear regression analysis

MATH 227 STATISTICS (4) UC:CSU

Lecture: 4 hour(s)
Prerequisite: Mathematics 125

Discusses basic concepts and techniques of descriptive and inferential statistics including sampling, probability, statistical distributions, tables and graphs, central limit theory, hypothesis testing, confidence interval estimation, correlation and regression. Most analysis will be done using Excel spreadsheet program.

Student Learning Outcome:

Upon successful completing this course: 1. The student will be able to test the hypothesis for sample proportion, mean and standard deviation. 2. The student will be able to determine the probability of an event in given a distribution. 3. Student will perform correlation and linear regression analysis

MATH 235 FINITE MATHEMATICS (5) UC:CSU

Lecture: 5 hour(s)
Prerequisite: Mathematics 125

This course consists of the basic concepts and operations of algebra essential to business, life and social science majors. The course includes the study of rational exponents, quadratic equations, graphs, logarithms, mathematics of finance, linear programming and an introduction to probability and statistics.

Student Learning Outcome:

1. Analyze a wide range of applications from many disciplines and graphically solve these optimization problems in two variables with linear constraints. 2. Solve the above applications in more than two variables using the simplex method. 3. Understand the principles of borrowing and saving to compare different financial opportunities and make informed decisions. 4. Use some of the principles from probability and statistics to extract useful information from raw data.

MATH 236 CALCULUS FOR BUSINESS AND SOCIAL SCIENCE (5) UC:CSU

Lecture: 5 hour(s)
Prerequisite: Mathematics 125

This course is an introduction to one and two variable calculus as applied to business, economics, and social sciences, included are applications of partial derivatives and multiple integrals to extreme problems.

Student Learning Outcome:

1) Apply the methods of differential calculus to analyze problems in Business and Economics, as well as Life Science, Physical Science and Social Science. 2) Apply the methods of differential calculus to sketch the graph of functions, determine maxima and minima in optimization problems, find rates of change and tangent lines and analyze revenue, cost and profit, in addition to marginal revenue, marginal cost and marginal profit. 3) Apply the methods of integral calculus to solve problems in Business and Economics.

MATH 240 TRIGONOMETRY (3) CSU

Lecture: 3 hour(s)
Prerequisite: Mathematics 125; Mathematics 121

Topics include trigonometric functions, circular functions; trigonometric equations; trigonometric identities; solutions of right and oblique triangles; inverse trigonometric functions, graphing; complex numbers and Demoivre's Theorem; polar coordinates; vectors and applications.

Student Learning Outcome:

1. Develop reciprocal, quotient and Pythagorean identities from the definitions of the trigonometric functions. 2. Solve application problems that are right-triangle based. 3. Graph the trigonometric functions; define and graph the inverse circular functions. 4. Use the Law of Sines and Law of Cosines to solve vector applications. 5. Solve such application problems as length of an arc, area of a sector, velocity and angular speed.

MATH 245 COLLEGE ALGEBRA (3) UC:CSU

Lecture: 3 hour(s)
Prerequisite: Mathematics 125

Upon successful completion of this course, students will reinforce the concept of functions and their graphs important in later courses of mathematics, science, business, nursing, or computer science. Polynomial, rational, radical, exponential, and logarithmic equations, both linear and nonlinear systems, sequences and series, and basics of probability are covered to allow students to solve a wide variety of real-life applications.

Student Learning Outcome:

Upon of successful completion of the course student will: (1) Graph and model with polynomial, rational, exponential and logarithmic functions. (2) Solve polynomial, rational, exponential and logarithmic equations. (3) Solve linear and nonlinear system of equations and inequalities and their applications.

MATH 260 PRECALCULUS (5) UC:CSU

Lecture: 5 hour(s)
Prerequisite: Mathematics 240

After a brief review of algebra with real and complex numbers, this course will cover the following topics: polynomial and rational functions with informal limits; exponential, logarithmic and trigonometric functions; systems of equations and matrices; sequences, series and the binomial theorem; conics and polar coordinates.

Student Learning Outcome:

1. Analyze and graph higher-degree polynomial functions and rational functions. 2. Analyze and graph exponential and logarithmic functions; solve exponential and logarithmic equations. 3. Analyze and graph trigonometric functions; solve trigonometric equations; verify and use trigonometric identities and formulas. 4. Write recursive and explicit formulas for sequences; evaluate partial sums and infinite series; apply the Binomial Theorem. 5. Write equations of conics, and graph conics; convert equations from rectangular to polar coordinates, and vice versa.

MATH 265 CALCULUS WITH ANALYTIC GEOMETRY I (5) UC:CSU

Lecture: 5 hour(s)
Prerequisite: Mathematics 260

Introduction to real analysis with analytic geometry; functions, limits and continuity; derivatives and integrals of algebraic and transcendental functions; applications of the derivative to graphing and optimization; the Fundamental Theorem of Calculus and applications of the definite integral.

Student Learning Outcome:

1. Demonstrate the rigorous definition of the limit, and how it applies to differential and integral calculus. 2. Use the definition and the properties of differentiation to calculate the derivative of algebraic and trigonometric functions. 3. Apply the derivative to geometric and dynamic problems. 4. Demonstrate the ability to integrate, to use the integral in applications and to relate the integral to the derivative. 5. Apply the integral to geometric and dynamic problems.

MATH 266 CALCULUS WITH ANALYTIC GEOMETRY II (5) UC:CSU

Lecture: 5 hour(s)
Prerequisite: Mathematics 265

This is the second course in the Calculus sequence. Topics include: application of the definite integral to geometry, science and engineering; techniques of integral evaluation; introduction to differential equations; sequences and infinite series; parametric and polar curves; conic sections.

Student Learning Outcome:

1. Differentiate and integrate algebraic and transcendental functions. 2. Select and use the appropriate technique to correctly perform a specific integration. 3. Solve application problems involving the definite integral. 4. Test for the convergence of an infinite series and apply the theory of power series to application problems. 5. Graph, differentiate and integrate functions in polar and parametric form.

MATH 267 CALCULUS WITH ANALYTIC GEOMETRY III (5) UC:CSU

Lecture: 5 hour(s)
Prerequisite: Mathematics 266

This is the third course in Calculus series. It reviews operations with vectors in two and three-dimensional spaces as well as vector-valued functions with their applications. Topics include partial derivatives, Lagrange multiplier, Line integrals, multiple integrals in polar, cylindrical and spherical coordinates, Green's theorem, Surface integrals, Divergence and Stokes' theorems.

Student Learning Outcome:

Upon successful completion of this course, students will be able to 1. Use and interpret derivatives algebraically, graphically, and numerically to model rates of change in application problems such as: locate relative and absolute extreme of functions of several variables, derive equations of lines and planes, analyze the motion of a particle in space, use differentials to find local linear approximations, find directional derivatives, and gradient. 2. Use and interpret integrals algebraically, graphically, and numerically to model summation in application problems such as: find volume of a solid region, center of a mass, moments of inertia, surface area, flux, work, and energy.

MATH 270 LINEAR ALGEBRA (3) UC:CSU

Lecture: 3 hour(s)
Prerequisite: Mathematics 267

Introduction to linear algebra and matrix theory. Topics include: linear systems, matrices and determinants; vector spaces and linear transformations; eigenvectors and eigenvalues; inner product spaces and canonical forms.

Student Learning Outcome:

1.- Solve systems of linear equations using matrices. 2.- Prove or disprove if a set, together with addition and scalar multiplication defined, satisfies the ten axioms of a vector space. 3.- Graph and geometrically describe the action of a linear transformation in two and three dimensions. 4.- Find the eigenvalues and the corresponding eigenvectors as well as the characteristic equation of a linear transformation.

MATH 275 ORDINARY DIFFERENTIAL EQUATIONS (3) UC:CSU

Lecture: 3 hour(s)
Prerequisite: Mathematics 267

Topics include ordinary differential equations with concentration on first and higher-order, homogeneous and non-homogeneous linear differential equations with or without initial-value conditions; system of linear first-order differential equations; Cauchy-Euler equation; series solutions; Laplace transform; numerical solutions.

Student Learning Outcome:

Upon the successful completion of the course students will: 1. Solve first-order separable linear differential equations and use these methods to solve applied problems. 2. Solve higher order constant-coefficient linear differential equations and systems of differential equations and use these methods to solve applied problems. 3. Apply appropriate transform methods to solve differential equations. 4. Construct power series solutions for various classes of ordinary differential equations.

MICROBIOLOGY

MICRO 001 INTRODUCTORY MICROBIOLOGY (5) UC:CSU

Lecture: 3 hour(s); Lab: 6 hour(s)
Prerequisite: Biology 003 or 005 or 006 or 020 or 036 or Physiology 001 and Chemistry
051 or 065 or 101

This course covers fundamental principles of microbiology and standard laboratory techniques. It includes systematics, morphology, physiology, genetics, ecology and evolution of microorganisms. Medical applications include concepts in microbial growth and control, epidemiology, immunology and disease. Industrial and environmental applications cover use of microorganisms™ diverse metabolic abilities in the production of food, chemicals and medicine, including role in biotechnology and environment.

Student Learning Outcome:

1. Be able to apply basic chemical principles in microbiology. 2. Be able to differentiate cellular structures in procaryotic and eucaryotic cells. 3. Be able to discuss fundamental concepts in microbial metabolism, microbial growth, and microbial genetics. 4. Be able to compare and contrast bacteria, fungi, algae, protozoa, helminthes, and viruses. 5. Be able to differentiate nonspecific and specific defenses of the host. 6. Be able to discuss infectious diseases of the human organ systems.

MICRO 020 GENERAL MICROBIOLOGY (4) UC:CSU

Lecture: 3 hour(s); Lab: 3 hour(s)
Prerequisite: Biology 003 or 005 or 006 or 020 or 036 or Physiology 001 and Chemistry
051 or 065 or 101

This is a comprehensive course for nursing and allied health majors. It covers fundamental principles and laboratory techniques related to systematics, morphology, physiology, genetics, ecology and evolution of microorganisms. Medical applications include basic concepts of microbial growth and control, epidemiology, immune response and a survey of important human diseases.

Student Learning Outcome:

1. Be able to apply basic chemical principles in microbiology. 2. Be able to differentiate cellular structures in procaryotic and eucaryotic cells. 3. Be able to discuss fundamental concepts in microbial metabolism, microbial growth, and microbial genetics. 4. Be able to compare and contrast bacteria, fungi, algae, protozoa, helminthes, and viruses. 5. Be able to differentiate nonspecific and specific defenses of the host. 6. Be able to discuss infectious diseases of the human organ systems.

MICROCOMPUTER TECHNICIAN

MICROTK 077 CISCO NETWORKING ACADEMY - SEMESTER I (3)

Lecture: 2 hour(s); Lab: 3 hour(s)

The first in a four course sequence that qualifies the student to take the CISCO CCNA Certification Test; and covers Fundamentals of Computer Internet-working, Safety Technology, Protocols, Network Theory and Standards, Cabling, Electrical Considerations, OSI Models, IP Addressing and basic networking Hardware.

Student Learning Outcome:

The student will have an understanding of network terminology and theory, recognize various ethernet configurations.

MICROTK 078 CISCO NETWORKING ACADEMY - SEMESTER II (3)

Lecture: 2 hour(s); Lab: 3 hour(s)
Prerequisite: Microcomputer Technician 77

This is the second course in a four course sequence that qualifies the student to take the CISCO CCNA Certification Test; and covers router fundamentals, beginning router setup and configuration, routed and routing protocols, WAN fundamentals, network troubleshooting and network management.

Student Learning Outcome:

The student will understand beginning router setup and configuration, routed and routing protocols, wide area inter networking fundamentals, network troubleshooting, and network management.

MICROTK 079 CISCO NETWORKING ACADEMY - SEMESTER III (3)

Lecture: 2 hour(s); Lab: 3 hour(s)
Prerequisite: Microcomputer Technician 78

This is the third course in a four course sequence that qualifies the student to take the CISCO CERTIFICATION TEST; and covers advanced router set-up and configurations, LAN switching theory and VLANs, advanced LAN and LAN switched design, Novell IPX, and threaded case studies.

Student Learning Outcome:

The student will demonstrate an understanding of the following: Single-Area OSPF, EIGRP, Switching Concepts, Switches and Switch Configuration, the Spanning Tree Protocol, Virtual LANs, Trunking Protocols, and Scaling IP Addresses. The WAN technologies PPP, ISDN and DDR, and Frame Relay are introduced. The student will also become familiar with Network Administration.

MICROTK 080 CISCO NETWORKING ACADEMY - SEMESTER IV (3)

Lecture: 2 hour(s); Lab: 3 hour(s)
Prerequisite: Microcomputer Technician 79

This is the fourth course in a four course sequence that qualifies the student to take the CISC0 CCNA Certification Exam; and covers advanced WAN theory and design; WAN Technology, PPP, Frame Relay, ISDN; Application of National SCANS skills in managing a network and network threaded case studies.

Student Learning Outcome:

Students will demonstrate an understanding of the following: advanced WAN theory and design, WAN technologies PPP, Frame Relay, ISDN, applications of national SCAN skills in managing a network, and Network Threaded case studies.

MICROTK 160 IT ESSENTIALS APPLICATION SOFTWARE FUNDAMENTALS (2) CSU

Lecture: 1 hour; Lab: 3 hour(s)

Instruction and demonstrations are provided on the application, set-up, configuration and operation of a wide range of computer programs.

Student Learning Outcome:

Students will demonstrate the ability to install a computer Operating System with all its driver devices.

MICROTK 162 IT ESSENTIALS NETWORKING PERSONAL COMPUTERS (4)

Lecture: 2 hour(s); Lab: 6 hour(s)

The course will assist students in designing, selecting, configuring and installing local area networks. System administration and troubleshooting is also covered in detail.

Student Learning Outcome:

Upon completion students will be able to connect to the Internet and share resources in a network environment.

MICROTK 164 IT ESSENTIALS MICROCOMPUTER THEORY AND SERVICING (5)

Lecture: 3 hour(s); Lab: 6 hour(s)

The course provides servicing techniques for microcomputers and their related peripherals. Hands-on instruction is provided in diagnosing a range of microcomputers malfunctions.

Student Learning Outcome:

Students will assemble a computer system and troubleshoot the system using appropriate tools and diagnostic software.

MICROTK 165 LINUX SURVIVAL COURSE (3) CSU

Lecture: 2 hour(s); Lab: 3 hour(s)

This course provides an introduction to the world of Linux (considered the success story of Open Source Software development). Linux and Open Source fundamentals will be taught as well as configuration and basic troubleshooting.

Student Learning Outcome:

Students will be able to deploy and troubleshoot a linux installation.

MICROTK 166 CCNA SECURITY (3) NDA

Lecture: 2 hour(s); Lab: 3 hour(s)

This course provides knowledge and skills to administer network devices and applications in a security infrastructure, recognize network vulnerabilities, and detect security threat. This course offers an overview of security challenges and solutions, and installing, monitoring, and troubleshooting Cisco security solutions to secure a network.

Student Learning Outcome:

Students will be able to control administrative access to network devices using ssh and configure administrative roles on network devices for network security.

MOTORCYCLE REPAIR MECHANIC

MCYCMEK 210 MOTORCYCLE FUEL INDUCTION AND POLLUTION CONTROL (4) CSU

Lecture: 3 hour(s); Lab: 3 hour(s)

Instruction is offered in the areas of motorcycle fuel systems including carburetion, fuel injection, and pollution controls.

Student Learning Outcome:

Disassemble, reassemble, and adjust carburetors, fuel injection system and pollution controls

MCYCMEK 212 MOTORCYCLE TUNE-UP AND CHASSIS MAINTENANCE (4) CSU

Lecture: 3 hour(s); Lab: 3 hour(s)

Course offers instruction in the areas motorcycle tune-up, general motorcycle repair and maintenance, including chassis components.

Student Learning Outcome:

Perform tune-up, valve adjustment and clutch/brake system maintenance

MCYCMEK 214 MULTI-CYLINDER ELECTRICAL PRINCIPLES AND REPAIR (4)

Lecture: 3 hour(s); Lab: 3 hour(s)

Instruction is offered in electrical theory, diagnosis, and repair as applied to the electrical systems of multi-cylinder motorcycles. Shop practices are given on testing procedures and test equipment, and repair.

Student Learning Outcome:

Perform diagnosis, repair and adjustment of motorcycle electrical systems.

MCYCMEK 216 MULTI-CYLINDER DIAGNOSIS AND OVERHAUL (4)

Lecture: 3 hour(s); Lab: 3 hour(s)

Multi-cylinder engine principles, operation and overhaul methods are stressed. Shop instruction on diagnosis, disassembly, repair, overhaul and assembly of multi-cylinder engines is offered.

Student Learning Outcome:

Perform engine overhaul

MUSIC

MUSIC 101 FUNDAMENTALS OF MUSIC (3) UC:CSU

Lecture: 3 hour(s)

This course provides an introduction to Western music theory and composition. The goal is to increase students' enjoyment and appreciation of music by understanding musical terminology, theory, and techniques. By the end of the course, students will be able to write a short musical composition.

Student Learning Outcome:

1. Students will understand the fundamentals of Western music theory and composition through an awareness of music terminology, theoretical structures, and techniques. 2. Students will be able to identify the notes of a piano keyboard. 3. Students will be able to write and read melodic, harmonic, and rhythmic notation in treble and bass clef. 4. Students will be able to write a short musical composition.

MUSIC 141 JAZZ APPRECIATION (3) UC:CSU

Lecture: 3 hour(s)

A survey of twentieth century ragtime, blues, New Orleans and Chicago jazz, stride piano, swing, bebop, cool jazz, hard bop, modal jazz, third stream, avant-garde and free jazz, fusion, and experimental jazz styles.

Student Learning Outcome:

Students will be aware of and breakdown various styles and genres of jazz music.

MUSIC 650 BEGINNING GUITAR (2) UC:CSU

Lecture: 1 hour; Lab: 2 hour(s)

Learning the basics of guitar with emphasis on right and left hand techniques, tuning, chords, strumming and notation. Students will learn to read and play simple melodies and accompaniments to gain a firm grasp of the instrument. Student must possess a guitar.

Student Learning Outcome:

1. Students will demonstrate the understanding of the fundamentals of left and right hand technique for both finger style and pick style guitar playing. 2. Students will be able to read standard notation. 3. Students will be able to identify Major, minor, and seventh chords. 4. Students will use the skills they have learned to perform melodies and songs. 5. Students will be able to perform a song demonstrating proper left hand and right hand technique.

NURSING, REGISTERED

REGNRSG 119 INTRODUCTION TO NURSING (1)

Lecture: 1 hour

This course will introduce nursing students to the RN Program Conceptual Framework and ethics as applied to nursing. It will identify student learning styles and guide students in study and test taking techniques to promote success in the program

Student Learning Outcome:

Student will demonstrate basic understanding of conceptual framework of nursing education.

REGNRSG 121 FUNDAMENTALS OF NURSING (3) CSU

Lecture: 1 hour; Lab: 6 hour(s)

This course is an introduction to the philosophy of nursing, nursing history, Maslow's Hierarchy of needs, and legal and ethical issues in nursing. Concurrent with the theory, the nursing student will have basic client care experience in the skills lab and hospital setting.

Student Learning Outcome:

1. The student will demonstrate knowledge and understanding of fundamental principles of nursing care. 2. The student will be able to provide basic nursing care to a hospitalized patient using principles of nursing process and Maslow's Hierarchy of Needs.

REGNRSG 122 INTRODUCTION TO MEDICAL SURGICAL NURSING (3) CSU

Lecture: 1 hour; Lab: 6 hour(s)
Prerequisites: REGNRSG 121 & 123

This course is designed to introduce the student to the concept of medical surgical nursing using Maslow's Hierarchy of Needs as a framework.

Student Learning Outcome:

The student will be able to utilize the nursing process and Maslow's Hierarchy of Needs to assess and plan how to meet the basic needs of medical surgical client.

REGNRSG 123 NURSING PROCESS AND COMMUNICATION (2) CSU

Lecture: 2 hour(s)

This course is designed to acquaint the students with the application of therapeutic communication and the components of Nursing Process: assessment, nursing diagnosis, planning, implementation and evaluation. Students will use Nursing Process in conjunction with Maslow's Hierarchy of Needs to make appropriate nursing judgments.

Student Learning Outcome:

Student will be able to utilize the nursing process in the care of patients in an acute healthcare setting. Student will use therapeutic communication skills in assessment of clients in acute healthcare setting

REGNRSG 125 NURSING PHARMACOLOGY (2) CSU

Lecture: 1.5 hour(s); Lab: 1.5 hour(s)

This course focuses on the effects of drug therapy on human body systems. The body systems include: the central nervous system, autonomic nervous, cardiovascular, renal, endocrine, respiratory and Gastro-intestinal systems. Also included are anti-infective, anti-inflammatory, immune and biological modifiers, chemotherapeutic, hematological, dermatologic, ophthalmic and otic agents. The students will learn and practice principles of medication administration.

Student Learning Outcome:

1. Students will be able to identify uses, actions, side effects, and adverse reactions to commonly used medications. 2. Students will demonstrate administration of oral, enteral, and parenteral medications.

REGNRSG 126 MEDICAL-SURGICAL NURSING I (5) CSU

Lecture: 3 hour(s); Lab: 6 hour(s)
Prerequisite: Registered Nursing 122 and Registered Nursing 124 and Registered Nursing 125 and Registered Nursing 134;

This basic course focuses on the nursing care of the adult client with moderate stress posed by common endocrine, gastrointestinal, cardiac and respiratory disorders. The student will function as a member of the health care team and beginning leadership skills will be presented. Emphasis will be placed on classroom and clinical application of critical thinking and therapeutic nursing interventions in acute, chronic and community health care settings.

Student Learning Outcome:

Student will be able to care for clients with fluid and electrolyte imbalances, acid-base imbalances, infections, endocrine disorders, gastrointestinal disorders, cardiovascular disorders, and respiratory disorders in the acute healthcare setting.

REGNRSG 127 MEDICAL-SURGICAL NURSING II (5) CSU

Lecture: 3 hour(s); Lab: 6 hour(s)
Prerequisite: Registered Nursing 126 and Registered Nursing 129 and Registered Nursing 130 and Registered Nursing 134;

This intermediate level medical/surgical nursing course focuses on nursing care of adult clients with high acuity problems within hospital and community settings. Students will use nursing process and Maslow's Hierarchy of needs to plan and implement nursing care. The course builds on the theory and skills presented in RN 126. Leadership role will be expanded.

Student Learning Outcome:

Student will formulate a comprehensive plan of care, organize and prioritize the needs of high acuity clients based upon Maslow's Hierarchy of Needs and nursing process for clients with intermediate high acuity problems, and multi-system illnesses in the acute healthcare environment.

REGNRSG 128 MEDICAL-SURGICAL NURSING III (3) CSU

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)
Prerequisite: Registered Nursing 127 and Registered Nursing 131 and Registered Nursing 134;

This course focuses on the nursing care of medical-surgical clients in a variety of setting. Emphasis will be on classroom and clinical application of critical thinking and caring interventions in chronic, acute, critical care and community health care settings.

Student Learning Outcome:

Students will demonstrate classroom and clinical application of critical thinking and caring interventions for medical-surgical clients in chronic, acute, critical care and community health care settings.

REGNRSG 129 GERONTOLOGY & COMMUNITY BASED NURSING (2) CSU

Lecture: 1 hour; Lab: 3 hour(s)
Prerequisite: Registered Nursing 122; Registered Nursing 124; Registered Nursing 125 and Registered Nursing 134;

This course focuses on nursing care of the older adult client with common health and illness needs. Emphasis will be on classroom and clinical application of critical thinking and caring therapeutic nursing interventions in acute, chronic and community health care settings for the older adult population.

Student Learning Outcome:

Students will assess and provide care for elderly clients in acute and community settings.

REGNRSG 130 PSYCHIATRIC-MENTAL HEALTH NURSING (3) CSU

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)
Prerequisite: Registered Nursing 122 and Registered Nursing 124 and Registered Nursing 125 and Registered Nursing 134;

This course focuses on nursing care of clients with common psychiatric mental health needs/disorders across the lifespan. Students will apply the nursing process, critical thinking, psychosocial theory and Maslow's Hierarchy of Needs to care of clients in acute, chronic and community-based psychiatric-mental health settings.

Student Learning Outcome:

Students will use the nursing process in providing psychiatric and mental health care to patients. Student will use therapeutic communication techniques to form therapeutic alliances with psych-mental health patients.

REGNRSG 131 REPRODUCTIVE NURSING AND WOMENS HEALTH (4) CSU

Lecture: 2 hour(s); Lab: 4.5 hour(s)
Prerequisite: Registered Nursing 126 and Registered Nursing 129 and Registered Nursing 130 and Registered Nursing 134;

This course focuses on the nurse as a provider of care, manager of care and a member of the profession in a variety of maternal/newborn and women's health settings.

Student Learning Outcome:

The student will demonstrate an understanding of the reproductive system and the characteristics of normal pregnancy, physiological and psychological elements, process of labor and delivery, post-partum care, and care of the newborn.

REGNRSG 132 CARE OF CHILDREN AND FAMILY (4) CSU

Lecture: 2 hour(s); Lab: 4.5 hour(s)
Prerequisite: Registered Nursing 127 and Registered Nursing 131 and Registered Nursing 134;

This course focuses on the nurse as a provider of care, manager of care and member of the profession in a variety of settings involving children and families. Course content includes physiological, psychological, developmental and socio-cultural needs of children and families. Course content in Pediatric Nursing will be presented within the framework of the wellness/illness continuum of the client and family from birth through adolescence.

Student Learning Outcome:

Utilize biopsychosocial concepts and theories, communication skills, and principles of critical thinking to apply the nursing process when caring for children and their families.

REGNRSG 133 NURSING LEADERSHIP & MANAGEMENT (3) CSU

Lecture: 0.5 hour(s); Lab: 7.5 hour(s)
Prerequisite: Registered Nursing 128 and Registered Nursing 132 and Registered Nursing 134

This course focuses on the transitioning role of the graduating Associate Degree nurse as a provider of care, manager of care and member of the profession. Concepts and issues to be examined include effective leadership styles, advanced therapeutic communication, delegation, conflict resolution, time management, nursing ethics and professional issues. Clinical experience is in the form of a preceptorship.

Student Learning Outcome:

Demonstrate leadership skills and ability to practice as entry-level registered nurse

REGNRSG 134 NURSING SIMULATION LAB (1) CSU

Lab: 3 hour(s)

This course is designed to allow students to practice nursing skills in a structured setting. It will make use of patient care scenarios in which evidence based practice will be emphasized. It must be taken in semesters 1, 2 and 3. It is optional in semester 4. The class will be individualized to meet students' needs.

Student Learning Outcome:

Demonstrate proficiency in applying patient care skills to simulated clinical setting.

REGNRSG 135 TRANSITION FROM LVN TO RN (2)

Lecture: 2 hour(s)

This is a bridge course for students who have a valid current California Vocational Nursing License. It focuses on content necessary to make the role transition from LVN to RN. Content will include Professional Nursing, Nursing Process, Maslow's Hierarchy of Needs, communication skills, ethical and legal issues affecting nursing practice, cultural assessment techniques and pharmacology and dosage calculation review.

Student Learning Outcome:

Student will compare and contrast current LVN role with RN role. Student will demonstrate competence in applying Nursing Process and Maslow's Hierarchy of needs to RN Nursing Care Plans. Student will demonstrate understanding of basic concepts in pharmacology and dosage calculation.

REGNRSG 136 NURSING SIMULATION LAB INTERMEDIATE (1)

Lab: 3 hour(s)

This course is designed to allow students to practice nursing skills in a structured setting. It will make use of patient care scenarios in which evidence based practice will be emphasized. The class will be individualized to meet students' needs.

Student Learning Outcome:

Demonstrate proficiency in applying patient care skills to simulated clinical setting.

REGNRSG 137 NURSING SIMULATION LAB ADVANCED (1)

Lab: 3 hour(s)

This course is designed to allow students to practice nursing skills in a structured setting. It will make use of patient care scenarios in which evidence based practice will be emphasized. The class will be individualized to meet students' needs.

Student Learning Outcome:

Demonstrate proficiency in applying patient care skills to simulated clinical setting.

OFFICE MACHINES

OFF MCH 002 ADDING AND CALCULATING MACHINES (1) CSU

Lab: 2 hour(s)
Advisory: Mathematics 105

This course demonstrates the 10-key touch method and explains the various computerized calculator function keys. The methods used help develop the proper skills needed to use computerized 10-key calculators in the workplace. The review of basic math functions, with emphasis on practical business problems.

Student Learning Outcome:

1. Understand calculator functions. 2. Calculate complex functions used in business. Calculations will include interest, discounts, investments in stocks and bonds, and converting fractions to percentages. 3. Understand touch method addition, subtraction, decimal point key, percents, constant multiplication, division rounding, mixed operations, and decimals.

PARALEGAL

PALEGAL 003 CIVIL RIGHTS AND THE LAW (3) CSU

Lecture: 3 hour(s)

This course will analyze United States Supreme Court decisions as they relate to civil rights in the context of their historical periods. Its ultimate purpose is to give the student an understanding of how the United States Supreme Court has had to respond to social movements within the United States, including but not limited to movements relating to racial equality, gender equality, religious expression, and sexual orientation, and how its interpretations of associated laws have impacted those movements as to their objectives, carriage, and reach.

Student Learning Outcome:

1. Student will be able analyze the sociopolitical impact of Court decisions upon specific societal groups as those groups perceive protections guaranteed them by the United States Constitution. 2. Student will be able to assess conflicts between U.S. Supreme court mandates and Congressional prescriptions.

PALEGAL 004 LEGAL INTERNSHIP (3) CSU

Lecture: 1 hour; Lab: 6 hour(s)
Prerequisite: Paralegal 10; Advisory: English 101

Under the instructor's direction and according to guidelines, paralegal student will be assigned to a law related institution, a local court, district attorney's office, city attorney's office, private law firm or a law library to demonstrate their career technical education skills and abilities.

Student Learning Outcome:

Student will gain an intimate understanding of how a legal institution operates. Student will experience first-hand the demands of a legal institution such as those of a law office. Student will experience first-hand how to interact with office personnel and clients/customers of diverse interests and socio-ethnic backgrounds.

PALEGAL 010 INTRODUCTION TO LAW AND LEGAL PROFESSION (3) CSU

Lecture: 3 hour(s)
Prerequisite: English 28

This introductory course provides an introduction to legal terminology, research of legal problems, law and ethics, and the role of the paralegal as a legal assistant.

Student Learning Outcome:

1. Comprehend and use legal terminology. 2. Access and utilize traditional and electronically formatted resources related to legal research. 3. Draft documents outlining and/or summarizing their research findings and conclusions based on those findings.

PALEGAL 011 INTRODUCTION TO CIVIL LITIGATION II (3) CSU

Lecture: 3 hour(s)
Prerequisite: Paralegal 10; Corequisite: Paralegal 10

Continuation of Paralegal I with the study of composition, location, and jurisdiction of all courts including an introduction to legal drafting and writing with continued study of document production and administration within the judiciary and a detailed examination of civil and criminal litigation.

Student Learning Outcome:

1. Student will be able to complete documents needed to begin civil litigation. 2. Student will be able to write motions necessary to advance a litigation in favor of one party or another. 3. Student will become familiar with and complete other court forms such as subpoenas, etc.

PALEGAL 012 TORT LAW (3)

Lecture: 3 hour(s)

This course provides an overview of the fundamentals of Tort Law including intentional torts to the person and to property, negligence, and strict liability. Additionally students will study personal injury investigation, preparation of legal pleadings, preparation and analysis of discovery materials, and how to prepare for tort litigation.

Student Learning Outcome:

1. Comprehend when and under what circumstances another owes them a legal duty to prevent harm to their person and/or property. 2. Initiate and engage an appropriate course of lawful action toward realizing a commensurate remedy for the harm or harms suffered to themselves and/or their property.

PALEGAL 013 WILLS, TRUSTS, AND PROBATE ADMINISTRATION (3)

Lecture: 3 hour(s)

Study of the fundamental principles of the law of wills, trusts, and probate including an examination of the organization and jurisdiction of the California Probate Court and the administration of estates through that court.

Student Learning Outcome:

1. Determine legal characteristics of different forms of property possession 2. Devise a plan for the distribution of a decedent's property according to the rules of California Probate Law as it applies to intestacy or contested wills. 3. Compose a legal will or establish a legal trust as to the disposition of a person's personal and/or real properties.

PALEGAL 014 LAW OFFICE MANAGEMENT AND PROCEDURES (3)

Lecture: 3 hour(s)
Advisory: English 101 and Paralegal 010

Students will examine the role of the paralegal in realizing fundamental objectives of managing a law office including understanding basic accounting principles, client services, personnel oversight, use of office technology, case indexing and filing, and office correspondence between colleagues and between clients.

Student Learning Outcome:

At the completion of this course student will be able to: 1. Establish and maintain a client file. 2. Research a case and provide a case brief for that researched case.

PALEGAL 016 CIVIL AND CRIMINAL EVIDENCE (3) CSU

Lecture: 3 hour(s)

Students will examine the rules of court including deposition and interrogatory preparations and how each affects the admissibility of evidence in a civil or criminal proceeding.

Student Learning Outcome:

1. Utilize resource materials in determining applicable evidentiary rules as codified at the federal and state levels of the judiciary. . Apply rules of evidence in determining whether offered evidence may be legally admitted for consideration at a civil or criminal proceeding.

PALEGAL 017 LEGAL WRITING (3)

Lecture: 3 hour(s)

Students will be introduced to traditional sources of law related information. Students will also be introduced to electronically-formatted sources of law related information. Students will utilize both source types in researching legal issues and preparing documents related to their findings.

Student Learning Outcome:

1). Perform legal research utilizing traditional and electronically-formatted resources. 2). Draft legal documents including memoranda, briefs, and opinion letters.

PALEGAL 019 PROPERTY AND CREDITOR RIGHTS (3)

Lecture: 3 hour(s)

Students will be introduced to the study of the different classifications of property interests including community property, tenancies, leases and other property interests. Students will also be introduced to the study of systems of recording those interests and how to search those databases. Students will examine secured transactions and bankruptcy laws.

Student Learning Outcome:

1) Demonstrate a comprehension of terminology associated with various classifications of property and property interests. 2) Properly assess and evaluate the legal ramifications and attendant rights related to the acquisition and distribution of property interests as an individual possessor or as co-possessor of that interest. 3) Demonstrate a comprehension of and properly evaluate their rights as a creditor or debtor toward resolution of a debt issue.

PALEGAL 020 PROBATE PROCEDURES (3)

Lecture: 3 hour(s)

A comprehensive study of methods for fact gathering, office procedures, and required court work involved in the processing of probates for testate and intestate decedents.

Student Learning Outcome:

1). Determine the legal nature of different forms of property possessions. 2). Devise an appropriate method of transferring property rights to decedent's desired others as per their Will and/or according to California's law of intestacy.

PALEGAL 051 LEGAL RESEARCH (3) CSU

Lecture: 3 hour(s)
Corequisite: Paralegal 10; Advisory: English 101

Student will learn to acquire information from traditional and electronic resources. Student will perform research in law libraries and through computer-based catalogs. Student will be taught to access and utilize primary, secondary, and CALPR research resources to resolve legal problems. Resources will include federal and state statutes, federal and state cases, federal and state regulations, digests, law reviews, treatises, citators, and other practice works.

Student Learning Outcome:

Student will be able to conduct legal research using primary and secondary authorities. Student will be able to utilize traditional and electronically-formatted resources

PHILOSOPHY

PHILOS 001 INTRODUCTION TO PHILOSOPHY (3) UC:CSU

Lecture: 3 hour(s)

This course introduces students to philosophy, covering the topics of ethics, logic and language, metaphysics, theory of knowledge, philosophy of religion, and political philosophy. Some of the questions examined include: What is the good life? What is knowledge and what are its sources? Is it possible that we know nothing at all? Does God exist? Could we ever know? What is the mind? What is justice? What is the basic nature of reality? An emphasis is placed on developing critical reasoning skills, and relating the topics to larger cultural issues and debates.

Student Learning Outcome:

The student will be able to describe the impact of philosophy on past and present society and to begin to critically examine their own ideas about truth, methods of thinking, and the nature of reality.

PHILOS 008 DEDUCTIVE LOGIC (3) UC:CSU

Lecture: 3 hour(s)

This is an introductory course in logic. The student is introduced to the standards and techniques of correct thought with regular practice with short specimens of correct and incorrect reasoning taken from daily life. Consistency, thoroughness, and other aspects of rational thought are fostered.

Student Learning Outcome:

(a) identify parts of simple arguments (premises and conclusions) (b) identify basic logical fallacies in short passages (c) test categorical syllogisms for validity (d) translate simple English sentences into categorical logic

PHYSICS

PHYSICS 001 MECHANICS OF SOLIDS (4) UC:CSU

Lecture: 3 hour(s); Lab: 3 hour(s)
Prerequisite: Physics 11 or Physics 12; Corequisite: Mathematics 265;

This course covers elements of classical mechanics, including motion in three dimensions, vectors, laws of motion, circular motion, energy and energy transfer, linear momentum, rigid body rotation, angular momentum, static equilibrium and elasticity.

Student Learning Outcome:

To deduce the value and its uncertainty of physical observables based on empirical values. To deduce the value of the density of a liquid based on measurements of the mass and the volume of the liquid. Use the experimental uncertainties in the measurements of the mass and the volume to determine the uncertainty in the deduced value of the density of the liquid. A level of performance of 60% is expected as a minimum.

PHYSICS 002 MECHANICS OF FLUIDS, HEAT, AND SOUND (4) UC:CSU

Lecture: 3 hour(s); Lab: 3 hour(s)
Prerequisite: Physics 1; Corequisite: Mathematics 266

This course covers elements of classical mechanics, thermodynamics, fluid dynamics, mechanical waves and geometrical optics, including universal gravitation, hydrostatics, hydrodynamics, oscillations, wave motion, sound, superposition of waves, temperature, first and second laws of thermodynamics, kinetic theory, entropy, nature of light and lenses. Differential and integral calculus are often needed.

Student Learning Outcome:

To deduce the mass of the Moon from data taken by the NASA Explorer satellite. Using the experimental uncertainties of the satellite orbit parameters and the orbital period, one should determine the uncertainty in the deduced value of the Moon mass.

PHYSICS 003 ELECTRICITY AND MAGNETISM (4) UC:CSU

Lecture: 3 hour(s); Lab: 3 hour(s)
Prerequisite: Physics 1; Mathematics 266

This course covers the elements of electricity and magnetism, including electric and magnetic fields and circuits and their application as well as inductance. Capacitance, Gauss's law, Ampere's law, Faraday's law, and resonance.

Student Learning Outcome:

1) Be able to demonstrate the understanding of theoretical and experimental concept of Coulomb's law, electrical and magnetic forces, electrical circuits and Ohm's law. 2) Be able to describe the Gauss's law, batteries, generators, motors and electrical circuits. 3) Be able to discuss the Faraday's law of Induction, properties of electromagnetic waves, and electromagnetic spectrum. 4) Be able to describe the Maxwell's equations of Electromagnetism and the principles of optics.

PHYSICS 004 OPTICS AND MODERN PHYSICS (4) UC:CSU

Lecture: 3 hour(s); Lab: 3 hour(s)
Prerequisite: Mathematics 267

This course covers the fundamentals of physical optics including radiation, spectra, wave mechanics, uncertainty principle, radioactivity and nuclear physics.

Student Learning Outcome:

For the lecture course content: 1) Be able to describe Young's double-slit experiment using the Michelson Interferometer, and demonstrate the understanding of diffraction of light from narrow slits and diffraction gratings. 2) Be able to discuss the nature of light as an electromagnetic wave, and how it is expressed in Maxwell's equations. 3) Be able to discuss Einstein's Special Theory of Relativity, especially in terms of time dilation, length contraction and relativistic energy and momentum. 4) Be able to describe Quantum Physics, including the photoelectric and Compton effects, the dual nature of matter and Heisenberg's Uncertainty Principle, Schrodinger's wave equation and different particle scenarios. 5) Be able to discuss atomic spectra and Bohr's Model of the atom, the wave function of hydrogen, the Pauli Exclusion Principle and the Periodic Table. 6) Be able to describe the molecular bonds in solids, energy states and spectra of molecules, electrical conduction in metals, insulators and semiconductors. 7) Be able to discuss the nature of atomic nuclei, different forms of radioactivity, nuclear fission and fusion, and Elementary Particle Physics. For the lab course content: 1) Be able to use a red Helium/Neon laser shining through a double slit plate and analyze the separation of the bright fringes and calculate the average wavelength of the laser. 2) Be able to use the Michelson Interferometer and demonstrate that if the path distance changes, the fringe pattern changes also, and calculate the number of fringes that travel for a given change in path difference. 3) Be able to use known spectra of Helium and calibrate the spectrometer, and measure the wavelength of the incoming light and compare to the standard value. 4) Be able to use a prism spectrometer to calculate the group velocity of packets of waves based on the Quantum Mechanics theory. 5) Be able to use the Hall Effect apparatus and measure the Hall voltage of two different metal strips, and compare to their actual Hall voltage. 6) Be able to use the Frank Hertz apparatus and analyze the quantization of atomic energy levels, and measure/calculate the amount of energy absorbed by an electron in the mercury atom in the gas. 7) Be able to plot a graph of radioactivity and examine the half-life of radioactive decay.

PHYSICS 006 GENERAL PHYSICS I (4) UC:CSU

Lecture: 3 hour(s); Lab: 3 hour(s)
Prerequisite: Mathematics 240

This course provides a survey of physics at the pre-calculus level, with emphasis on mechanics, wave motion, fluids, heat and thermodynamics. The laboratory consists of engineering applications and problem solving.

Student Learning Outcome:

At the completion of this course the student will: 1. Demonstrate understanding of the laws of Physics, and have hands on experience, as applied to linear motion, Newton's laws of Motion, and rotation, the law of conservation of energy, conservation of momentum, conservation of angular momentum.

PHYSICS 007 GENERAL PHYSICS II (4) UC:CSU

Lecture: 3 hour(s); Lab: 3 hour(s)
Prerequisite: Physics 6

This course provides a survey of physics at the pre-calculus level, with emphasis on electricity and magnetism, optics and modern physics. The laboratory consists of engineering applications and problem solving.

Student Learning Outcome:

1. At the completion of this course the student will know and understand the Laws of Physics and how to use the laws of Physics to do problem solving in the areas described in 2 below. 2. The student will have a basic understanding of Elasticity, Oscillations and Waves, Electricity, Magnetism, Optics. Theory of Relativity and Modern Physics. 3. The student will be able to perform simple experiments that demonstrate the laws and principles of Physics.

PHYSICS 011 INTRODUCTORY PHYSICS (4) UC:CSU

Lecture: 3 hour(s); Lab: 3 hour(s)
Corequisite: Mathematics 114 or Mathematics 115 and Chemical Technology 111 or
Chemical Technology 113

This is a survey course describing the major areas of physics: mechanics, heat, wave motion, electricity and magnetism, electromagnetic radiation and optics. Mathematical solutions of simple problems are covered. This course is not open to students receiving credit for Physics 12.

Student Learning Outcome:

Students will: 1) Convert measurements into metric and US system of units. 2)Determine accuracy and precision of a given measurement or calculation.3)To demonstrate knowledge and to solve problems on kinematics, force, momentum, work, energy, power, rotational motion, density, pressure, heat energy, electricity, magnetism, light, sound, and, optics.

PHYSICS 012 PHYSICS FUNDAMENTALS (3) UC:CSU

Lecture: 3 hour(s)
Corequisite: Mathematics 113 or Mathematics 115 or Chemical Technology 113 and
Chemical Technology 111;

This is a survey course describing the major areas of physics: mechanics, heat, wave motion, electricity and magnetism, electromagnetic radiation and optics. Mathematical solution of simple problems are covered. This course is not open to students receiving credit for Physics 11.

Student Learning Outcome:

The student will be able to convert measurements into metric or US units.

PHYSICS 014 PHYSICS FUNDAMENTALS LABORATORY (1) UC:CSU

Lab: 3 hour(s)
Corequisite: Physics 12;

This course covers laboratory experiments in basic measurements, mechanical, thermal, sound, electrical and optical phenomena at an introductory level.

Student Learning Outcome:

The student will be able to convert measurements into metric or US units.

PHYSICS 029A BASIC PHYSICS FOR TECHNICIANS (3)

Lecture: 3 hour(s)
Corequisite: Mathematics 114 or Mathematics 115 or Physics 11

This course covers basic mechanical, fluid, thermal, electrical, magnetic, and optical topics at an introductory level.

Student Learning Outcome:

The student will be able to analyze a problem in the area of mechanics.

PHYSICS 029B BASIC PHYSICS FOR TECHNICIANS (1)

Lab: 3 hour(s)
Corequisite: Mathematics 114 or Mathematics 115 or Physics 11

This course covers basic mechanical, fluid, thermal, electrical, magnetic, and optical topics at an introductory level.

Student Learning Outcome:

The student will be able to analyze a problem in the area of mechanics.

PHYSIOLOGY

PHYSIOL 001 INTRODUCTION TO HUMAN PHYSIOLOGY (4) UC:CSU

Lecture: 3 hour(s); Lab: 3 hour(s)
Prerequisite: ANATOMY 001 and CHEM 051 or CHEM 065 or CHEM 101

A detailed study of the function of major systems of the human body. Laboratory experiments will be based on physiological processes covered in lecture.

Student Learning Outcome:

Student will demonstrate technical skills to study physiology including use of computer simulations and ECG recording devices. Student will apply scientific method to lab experiments. Student will describe physiological processes and control mechanisms of the human body. Student will explain health applications and pathologies for each body system.

PLUMBING

PLUMBNG 026 PLUMBING LAYOUT AND ESTIMATING I (3)

Lecture: 3 hour(s)

This course covers fundamentals of blueprint reading for residential plumbing with an introduction to piping layout and design and basic estimating procedures. An overview of piping and fitting nomenclature, measurements and related calculations, as well as techniques in sketching, along with orthographic, and isometric drawing creation are included.

Student Learning Outcome:

Student will be able to read a basic blueprint for plumbing symbols and requirements. ¢The student will take information from a set of plumbing plans

PLUMBNG 027 PLUMBING LAYOUT AND ESTIMATING II (3)

Lecture: 3 hour(s)

This course is a study of blueprints and specifications as related to plumbing layout and estimating. Knowledge and experience of students, including the application of codes and standards, are utilized in the creation of estimates. Principles of estimating, including materials, labor, overhead, and profit are reviewed. Layout procedures for one-and two-story residential, commercial and industrial units are examined as well as estimating procedures for each of these units. Pricing methods and bidding practices are included.

Student Learning Outcome:

Plumbing SLO# 1 Water Distribution Design and Material Take off: Student will create an isometric plumbing plan for the water distribution system from a set of blueprints and determine pipe and fittings required to perform job.

PLUMBNG 028 PLUMBING CODE I (3)

Lecture: 3 hour(s)

Introduction is given in plumbing codes and ordinances that affect rough-in work, in city and county areas. Installation of wastes, vents, clean-outs, traps, gas fittings, gas vents and water pipe requirements are reviewed.

Student Learning Outcome:

SLO 1: Apply plumbing trade calculations and measurements. 2: Calculate fixture unit values for DWV. 3: Design a basic residential drainage system

PLUMBNG 029 PLUMBING CODE II (3)

Lecture: 3 hour(s)

Instruction is given in the uniform plumbing code that involves the current regulations of water and gas systems, fixture installation, water heaters, joints and connections, introduction to appendix 'A' and reference standards.

Student Learning Outcome:

It is expected that student will be able to: Calculate building and available pressure Calculate fixture load values Apply plumbing trade math

PLUMBNG 031 BACKFLOW PREVENTION DEVICES (3)

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)

This course is designed to prepare student for Backflow Prevention Assembly Tester Certification. Instruction is given in fundamentals of cross-connection control including State, County, County Health Department, and Municipal codes. Water Purveyor rules and regulations are also reviewed in this course. Emphasis is given to laboratory work in installing, operating, testing, troubleshooting, and maintaining Pressure, Spill Resistant Pressure, and Two Check Type Pressure, Vacuum Breakers as well as Double Check Valve, Double Check Valve-Detector, Reduced Pressure Principle, and Reduced Pressure Principle-Detector Backflow prevention Assemblies.

Student Learning Outcome:

The trainee will use hand tools to perform plumbing operations by using the differential pressure test gauge and the test tubes to fully test a Pressure Vacuum Breaker Assembly. Skill #1 The trainee will: test air inlet using test tube procedure Skill #2 The trainee will: test checking member using test tube procedure. Skill #3 The trainee will: test air inlet using differential test gauge procedure. Skill #4 The trainee will: test checking member using differential test gauge procedure.

PLUMBNG 033 PLUMBING CODE III (3)

Lecture: 3 hour(s)

This course presents in-depth coverage of plumbing standards, including acceptable installation practices and acceptable materials. All standards are based on the current IAPMO uniform plumbing code.

Student Learning Outcome:

It is expected that student will be able to: calculate load values for fuel gas systems design a fuel gas system identify basic materials and agencies convert heat calculations of buts and com

PLUMBNG 111 INTRODUCTION TO PLUMBING (3)

Lecture: 1 hour; Lab: 6 hour(s)

This course surveys the history of the Plumbing Industry; Highlights occupational information, Evokes job ethics and instructs on career information. The course also covers occupational health and safety hazards, provides an overview of Plumbing systems, and introduces the tools of the trade.

Student Learning Outcome:

Student will use common power tools to perform basic plumbing operations by drilling holes through wood framing members using the Milwaukee Hole Hawg. Skill #1 The student will Measure and mark stud bay and calculate to locate center of drilled hole in stud bay. Drill hole in center of bay and plumb using Hole Hawg and self-feeding-bit safely without binding drill bit. Mark second hole in simulated fireblock plumb and centered under first hole in top plat Drill second hole centered and plumb through top plate using auger bit safely without binding bit.

PLUMBNG 112 FUNDAMENTALS OF PLUMBING (3)

Lecture: 3 hour(s)

This course studies fundamentals of plumbing calculations and elementary drawings for beginners. Topics include pipe sizes and calculations, flow in pipe, friction design application, Instruction is given in the principles and design of water supply, fuel gas distribution, and D.W.V. (Drain, Waste and Vent).

Student Learning Outcome:

1. The student will be able to calculate grade and fall of drainage and building drain to sewer.

PLUMBNG 113 BASIC PLUMBING PRINCIPLES AND PRACTICES (6)

Lecture: 3.5 hour(s); Lab: 7.5 hour(s)

This course introduces fundamentals of plumbing principles and practices. Topics include installation, repair, and nomenclature of pipes, fittings, and fixtures. Instruction is given on elementary drawings, plan reading, general specifications, and trade calculations as related to construction documents.

Student Learning Outcome:

The student will be able to scale drawings using an architect's scale or a rule. The student will take measurements off a scaled floor plan using the architects scale. The student will use an architect scale and a floor plan to: Measure how far apart, center to center, the stub outs are for the water closets in the Girl's Restroom. Measure and calculate number of feet of 2 type L copper tubing required for job plus/minus 20ft. Measure how far apart, center to center, the urinals are in the Boys Restroom. Measure distance from exterior of South Wall West side of building to center line of Plumbing Wall behind water closets on South Side of Girls Restroom.

PLUMBNG 121 WORKING DRAWINGS AND LAYOUT I (3)

Lecture: 3 hour(s)

This course offers instruction in basic blueprints, estimating and drafting related to the plumbing industry; proper methods and procedures of plan interpretation and application. This course also offers exposure to the plumbing code, manufacturer's data sheets, and plumbing specifications.

Student Learning Outcome:

Utilize basic drawing tools Create and design basic isometric plumbing systems according to the current UPC Identify and list load values and pipe sizes according to the current UPC

PLUMBNG 122 PLUMBING MATHEMATICS AND PROCEDURES II (3)

Lecture: 3 hour(s)

This course offers instructions in measuring, material purchases and return procedures, capacity loading, pressure calculations and gas conversions related to the plumbing industry, with emphasis on formulas calculations peculiar to the industry

Student Learning Outcome:

It is expected that student will be able to: Apply plumbing trade calculations and measurements Calculate fixture load values and pipe sizes Calculate grade and fall

PLUMBNG 123 PLUMBING PRACTICES AND INSTALLATION (6)

Lecture: 1.5 hour(s); Lab: 13.5 hour(s)

This course offers the study and practice of the proper methods and procedures used in installing plumbing fixtures and accessories. Installing, fabricating and testing fixtures applicable to residential and commercial plumbing are covered.

Student Learning Outcome:

It is expected that students will be able to properly design and size a functioning drainage system complete with venting and in compliance with the current uniform plumbing codes: Recognize various plumbing systems: gas, water, and dwv. Identify and calculate fixture unit values and capacities for fixtures and pipes. Calculate aggregate cross sectional areas for vents, using inch square calculations. Read, calculate, and apply footnotes, fixture unit values and load capacities for fixtures and pipes using sizing charts from the upc. Apply current and legal installation methods, procedures, and practices as adopted by the upc.

PLUMBNG 131 WORKING DRAWING II (3)

Lecture: 3 hour(s)

This course is a study of blueprints, plans, and drawings as related to the plumbing trade. Skills, including the interpretation of applicable code and standards. Basic principles of estimating, including materials and their quantities are reviewed.

Student Learning Outcome:

Students will be able to demonstrate knowledge of and proficiency in the study blueprints, plans and drawings including the interpretation of applicable plumbing codes and standards: The student will locate and properly mark the centerline of water closet The student will locate and properly mark the centerline of the closet flange The student will locate and properly mark the height and distance for the center of the water closet for the water supply stub out

PLUMBNG 132 PLUMBING CALCULATIONS AND PROCEDURES II (3)

Lecture: 1 hour; Lab: 6 hour(s)

Instruction is given in layout procedures involving applied calculations concerning the plumbing trades. Instruction is also given in layout and design criteria with hands on laboratory procedures.

Student Learning Outcome:

Students will be able to demonstrate knowledge and proficiency in using plumbing manuals to find area and volume for roof drainage: The student will be able to calculate square footage. The student will be able to calculate a percentage of sidewalls added to total roof area. The student will able to calculate the roof drain size and piping by finding the proper table in the plumbing manual. The student will be able to find the formulas and tables to size the minimum scupper opening.

PLUMBNG 133 INSTALLATION AND PLUMBING FIXTURES (6)

Lecture: 3.5 hour(s); Lab: 7.5 hour(s)

This course covers fabrication, erection of piping, layout methods, process piping, blueprint installations and testing of plumbing fixtures and appliances.

Student Learning Outcome:

The Student will be able to use technical documents and manuals to calculate pipe sized in a gas system: The student will be able to find developed lengths on branch lines and calculate pipe size The student will be able to use technical manuals to choose the correct size of water heater The student will be able to correctly read fittings from technical documents on a gas system

PLUMBNG 141 ADVANCE LAYOUT AND PROCEDURES (3)

Lecture: 3 hour(s)

This course covers proper methods of layout and installation procedures, fabrication, and erection of piping in commercial buildings in compliance with local and national codes.

Student Learning Outcome:

Students will be able to apply information in Plumbing manual to determine adequate size DWV piping: Student will be able to find the correct table to find adequate pipe size

PLUMBNG 142 SERVICING OF PLUMBING FIXTURES AND APPLIANCES (3)

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)

This course covers proper methods of repairing plumbing fixtures and appliances, preparing for the repair job, and estimating the job.

Student Learning Outcome:

Finding Information in manufacturer's manuals to repair basic parts of a water closet Student will correctly identify different parts in a water closet Student will correctly find replacement parts in manufacture manual Student will correctly find and total price of replacement parts

PLUMBNG 143 PLUMBING CODE I (3)

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)

This course covers building codes as they relate to plumbing, with emphasis on the effective use of applicable codes and hands-on laboratory projects.

Student Learning Outcome:

Students will be able to use Technical Plumbing Manual to calculate support systems for piping systems: Students will be able to correctly calculate support of ABS DWV piping systems Students will be able to correctly calculate support for copper potable water piping. Students will be able to correctly calculate support for PEX potable water piping

PLUMBNG 144 SPECIAL PURPOSES INSTALLATION (3)

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)

This course covers fabrication and erection of piping for the proper installation of special appliances and fixtures and special methods used in the construction of these fixtures, as well as testing procedures.

Student Learning Outcome:

Students will be able to demonstrate knowledge and proficiency in finding and applying information from technical plumbing manuals. The student will be able to identify wet vented sections. The student will be able to determine correct fixture unit values. The student will be able to determine proper pipe size.

PLUMBNG 185 DIRECTED STUDY-PLUMBING (1)

Lecture: 1 hour

This course allows students to pursue a directed study in plumbing technology on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in plumbing technology.

PLUMBNG 185L DIRECTED STUDY, PLUMBING TECHNOLOGY (LAB) (1)

Lab: 3 hour(s)

This course allows students to pursue a directed study in plumbing technology on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will design and construct a lab project based on a topic in plumbing technology.

PLUMBNG 246 PRINCIPLES AND PRACTICES OF PLUMBING DESIGN (4)

Lecture: 2.5 hour(s); Lab: 4.5 hour(s)

Students are trained on skills such as measuring with an architect's scale, construction drawings that include piping layout, fixture layout, disability requirements, orthographic drawings and basic isometric drawings

Student Learning Outcome:

Apply basic plumbing calculations Utilize basic drawing tools Name basic plumbing tools

PLUMBNG 285 DIRECTED STUDY - PLUMBING (2)

Lecture: 2 hour(s)

This course allows students to pursue a directed study in Plumbing technology on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in plumbing technology.

PLUMBNG 285L DIRECTED STUDY, PLUMBING TECHNOLOGY (LAB) (2)

Lab: 6 hour(s)

This course allows students to pursue a directed study in plumbing technology on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will design and construct a lab project based on a topic in plumbing technology.

PLUMBNG 385 DIRECTED STUDY - PLUMBING (3)

Lecture: 3 hour(s)

This course allows students to pursue a directed study in plumbing technology on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in plumbing technology.

PLUMBNG 385L DIRECTED STUDY, PLUMBING TECHNOLOGY (LAB) (3)

Lab: 9 hour(s)

This course allows students to pursue a directed study in plumbing technology on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will design and construct a lab project based on a topic in plumbing technology.

PLUMBNG 941 COOPERATIVE EDUCATION - PLUMBING (4)

Lecture: 4 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

POLITICAL SCIENCE

POL SCI 001 THE GOVERNMENT OF THE UNITED STATES (3) UC:CSU

Lecture: 3 hour(s)
Advisory: English 28;

Political Science 1 is an introductory course in the principles, institutions and policy processes of the American Political System and an examination of major tenets in Federalism, Representative Government and the scope of the Executive, Legislative and Judicial powers. It offers an overview of local, state and national governance.

Student Learning Outcome:

Students will be able to evaluate current political situations and develop defendable positions on the events.

POL SCI 002 MODERN WORLD GOVERNMENTS (3) UC:CSU

Lecture: 3 hour(s)
Advisory: English 28

This course will explore a selected variety of major nation-states to develop a comparative overview of political philosophies, constitutions, political processes, systems and institutions. Emphasis is placed on geographic, cultural, historic, economic, and demographic factors that contribute to differences in the development and establishment of nation-states.

Student Learning Outcome:

To increase knowledge of diverse political systems around the world, including empirical area-based knowledge; broader theoretical understanding of different political systems, institutions and processes; and the changing domestic and global contexts within which they operate.

POL SCI 007 CONTEMPORARY WORLD AFFAIRS (3) UC:CSU

Lecture: 3 hour(s)
Advisory: English 28

This course will focus on the relationships of nations in modern times emphasizing the nation-state system, diplomacy, international law, and international organizations. Students will explore the causes, consequences, and methods of resolving international conflicts, and the impact of internal economic, political, and military factors on foreign policy.

Student Learning Outcome:

Students will demonstrate an ability to analyze relations between nations, international government and non-governmental organizations, and global actors, organize ideas and synthesize the critical overall objectives of the assignment or presentation.

POWER LINE MECH TRNE

ELECL 601 POWER LINE MECHANIC - TRAINEE (600 HOURS) (15)

Lecture: 6 hour(s); Lab: 27 hour(s)
Prerequisite: Electrical Construction and Maintenance 119 or Electrical Construction and
Maintenance 173 or Electrical Construction and Maintenance 1 and Building Construction
Techniques 4 or Electrical Construction and Maintenance 116;

The goal of this course is to produce qualified candidates for various Power Line Mechanic training programs. Development of basic pre-apprentice skills needed to be successful will be emphasized. These skills include: overall safety considerations, power pole and tower climbing skills, knowledge of the basic tools and materials involved with the electrical line crafts, general construction standards, basic rigging principles, and basic electrical theory that is specific to this trade. A power pole-climbing certificate of competencies is granted to students who successfully complete this course. This course meets or exceeds the equivalent industry recognized 600 hour programs. Special Note: Students during the course of instruction will be required to lift up to 60 lbs with repetition and will be required to climb and perform installation and maintenance operations at the top of 30 foot power poles. Physical or psychological impairments that might limit your abilities to succeed should be considered.

Student Learning Outcome:

SLO: Students will complete pole climbing certificate including successful completion of three climbs: Climb 1 " Free climb, circle, adjust belt Climb 2 " Combination free climb and belted climb over obstructions Climb 3 " 55 foot pole climb with maximum reach left and right

ELECL 601A POWER LINE MECHANIC - TRAINEE (600 HOURS) PART A (6)

Lecture: 6 hour(s)
Prerequisite: Electrical Construction and Maintenance 1 or Electrical Construction and
Maintenance 173 or Electrical Construction and Maintenance 119;

The goal of this course is to produce qualified candidates for various Power Line Mechanic training programs. Development of basic pre-apprentice skills needed to be successful will be emphasized. These skills include: overall safety considerations, power pole and tower climbing skills, knowledge of the basic tools and materials involved with the electrical line crafts, general construction standards, basic rigging principles, and basic electrical theory that is specific to this trade. A power pole-climbing certificate of competencies is granted to students who successfully complete this course. This course meets or exceeds the equivalent industry recognized 600 hour programs. Special Note: Students during the course of instruction will be required to lift up to 60 lbs with repetition and will be required to climb and perform installation and maintenance operations at the top of 30 foot power poles. Physical or psychological impairments that might limit your abilities to succeed should be considered. Part A is the lecture module of the standard 601 class, allows for offering the program over an extended period.

Student Learning Outcome:

SLO: 1. Solving Series Circuits using Ohms Law and the Power Equation. SLO 2. Solving Parallel Circuits using Ohms Law and the Power Equation. SLO 3. Solving Combination Circuits using Ohms Law and the Power Equation.

ELECL 601B POWER LINE MECHANIC - TRAINEE (600 HOURS) PART B (3)

Lab: 9 hour(s)
Prerequisite: Electrical Construction and Maintenance 116 or Building Construction
Techniques 4;

The goal of this course is to produce qualified candidates for various Power Line Mechanic training programs. Development of basic pre-apprentice skills needed to be successful will be emphasized. These skills include: overall safety considerations, power pole and tower climbing skills, knowledge of the basic tools and materials involved with the electrical line crafts, general construction standards, basic rigging principles, and basic electrical theory that is specific to this trade. A power pole-climbing certificate of competencies is granted to students who successfully complete this course. This course meets or exceeds the equivalent industry recognized 600 hour programs. Special Note: Students during the course of instruction will be required to lift up to 60 lbs with repetition and will be required to climb and perform installation and maintenance operations at the top of 30 foot power poles. Physical or psychological impairments that might limit your abilities to succeed should be considered. Part B is first of 3 laboratory modules of the standard 601 class, allows for offering the program over an extended period.

Student Learning Outcome:

SLO: Students will complete first 1/3 of pole climbing certificate including successful completion of one climb: Climb 1 Free climb, circle, adjust belt

ELECL 601C POWER LINE MECHANIC - TRAINEE (600 HOURS) PART C (3)

Lab: 9 hour(s)
Prerequisite: Electrical Construction and Maintenance 116 or Building Construction Techniques 4;

The goal of this course is to produce qualified candidates for various Power Line Mechanic training programs. Development of basic pre-apprentice skills needed to be successful will be emphasized. These skills include: overall safety considerations, power pole and tower climbing skills, knowledge of the basic tools and materials involved with the electrical line crafts, general construction standards, basic rigging principles, and basic electrical theory that is specific to this trade. A power pole-climbing certificate of competencies is granted to students who successfully complete this course. This course meets or exceeds the equivalent industry recognized 600 hour programs. Special Note: Students during the course of instruction will be required to lift up to 60 lbs with repetition and will be required to climb and perform installation and maintenance operations at the top of 30 foot power poles. Physical or psychological impairments that might limit your abilities to succeed should be considered. Part C is the second of 3 laboratory modules of the standard 601 class, allows for offering the program over an extended period.

Student Learning Outcome:

SLO: Students will complete second 1/3 of pole climbing certificate including successful completion of one climb: Climb 1 Combination free climb and belted climb over obstructions

ELECL 601D POWER LINE MECHANIC - TRAINEE (600 HOURS) PART D (3)

Lab: 9 hour(s)
Prerequisite: Electrical Construction and Maintenance 116 or Building Construction Techniques 4;

The goal of this course is to produce qualified candidates for various Power Line Mechanic training programs. Development of basic pre-apprentice skills needed to be successful will be emphasized. These skills include: overall safety considerations, power pole and tower climbing skills, knowledge of the basic tools and materials involved with the electrical line crafts, general construction standards, basic rigging principles, and basic electrical theory that is specific to this trade. A power pole-climbing certificate of competencies is granted to students who successfully complete this course. This course meets or exceeds the equivalent industry recognized 600 hour programs. Special Note: Students during the course of instruction will be required to lift up to 60 lbs with repetition and will be required to climb and perform installation and maintenance operations at the top of 30 foot power poles. Physical or psychological impairments that might limit your abilities to succeed should be considered. Part D is the third of 3 laboratory modules of the standard 601 class, allows for offering the program over an extended period.

Student Learning Outcome:

SLO: Students will complete third 1/3 of pole climbing certificate including successful completion of one climb: Climb 155 foot pole climb with maximum reach left and right

PROCESS PLANT TECHNOLOGY

PRPLTEK 100 INTRODUCTION TO INDUSTRIAL PROCESS (3) CSU

Lecture: 3 hour(s)

The purpose of this course is to provide an overview or introduction into the field of Process Operations within the Chemical Process Industries, such as the oil refinery and wastewater industries. Students will be introduced to the roles and responsibilities of Process Technicians, the environment in which they work, and the equipment and systems in which they operate.

Student Learning Outcome:

1. Define key terms used in process technology. 2. Explain the basic principles of safety, health, and environment in the process industry. 3. Describe the basic hand tools, equipment and instruments used in industry. 4. Describe various systems operated in industry. 5. Describe the fundamental principles of chemistry and physics

PRPLTEK 102 PROCESS MEASUREMENT AND CONTROL FUNDAMENTALS (3) CSU

Lecture: 3 hour(s)

The purpose of this course is to provide an introduction to the fundamentals of process variables and a variety of instruments used to sense, measure, transmit, and control process plant operations within chemical manufacturing, oil refineries and wastewater treatment industries.

Student Learning Outcome:

Define terms associated with industrial instrumentation ¢Describe the major process variables controlled in the Process Industry ¢Explain the relationship between common process variables ¢Describe the components of control loops ¢Explain the function of process control loops ¢Define and describe the symbols used in Process and Instrumentation Diagrams and Process Flow diagrams

PRPLTEK 103 PROCESS PLANT EQUIPMENT (3) CSU

Lecture: 2 hour(s); Lab: 3 hour(s)

This course introduces the student to the generic equipment used in the process plant industry. Students will learn the fundamental principles of operation, construction, and application of piping, pipe fitting, steam traps, valves, pumps compressors, steam turbines, electric motors, furnaces, heat exchangers, cooling towers, storage tanks, distillation towers reactors and process instrumentation.

Student Learning Outcome:

Define terms associated with process equipment ¢Explain the function of process equipment Describe the internal components of the equipment ¢Explain the operating principles of the equipment ¢Explain the operator's role in safe operation of equipment ¢Explain the operator's role in troubleshooting equipment malfunction -Describe the general maintenance procedures that operators are expected to perform

PRPLTEK 104 INTRODUCTION TO PROCESS PLANT SAFETY (3) CSU

Lecture: 3 hour(s)

This course provides an introduction to the field of environmental, safety, and health within the chemical laboratory, biotechnology, biomanufacturing, waste water treatment and chemical process industries. Students will be introduced to various types of laboratory and plant safety techniques and hazards. In addition an overview will be provided of safety and environmental systems and equipment, and state and federal regulations under which laboratory testing, plant processes, bio and chemical manufacturing are governed.

Student Learning Outcome:

1. Students will ID and describe four main types of hazards 2. Students will recognize physical and chemical hazards in the chemical, bio-manufacturing and process industries 3. Students will ID and describe GLP and cGMP regulations

PRPLTEK 200 PETROLEUM REFINING FUNDAMENTALS (3) CSU

Lecture: 3 hour(s)

The purpose of this course is to provide an introduction to the unique combinations of equipment and systems used to separate materials in chemical manufacturing, oil refineries, wastewater treatment, pharmaceutical industries, biomanufacturing and others. The study will include process systems such as, reactions, water treatment, distillation, absorbing/stripping, evaporation, extraction and fundamental organic chemistry principles involved in process systems.

Student Learning Outcome:

¢Define terms associated with process systems Explain the function of process systems. Describe the components and equipment in process systems Explain the operating principals of the process systems Explain the operators role in safe operation of process systems Explain the operators role in troubleshooting process system malfunction Identify the different equipment systems used to make up a distillation system. Explain how the methods of heat transfer apply to the distillation process.

PRPLTEK 202 INTRODUCTION TO PROCESS PLANT TROUBLESHOOTING (3)

Lecture: 3 hour(s)

This course introduces students to the troubleshooting processes involved in the investigation, identification and eliminating of the type of faults which are common to process plant operations.

Student Learning Outcome:

Recognize the difference between trial and error and systematic troubleshooting methodologies. Differentiate the categories of potential causes: probable, plausible and possible. Describe the phases and steps that constitute an effective troubleshooting methodology. Successfully apply the phases of the troubleshooting process to a variety of operational problems. Recognize the adverse impact that human, organization and system behavior have on effective troubleshooting.

PRPLTEK 204 PTECH INSTRUMENTATION - COMPUTER APPLICATIONS (2)

Lecture: 2 hour(s)

This advanced course introduces students to the computerized software used to manipulate process operations in chemical industries including petrochemical, wastewater, pharmaceutical and numerous other operations.

Student Learning Outcome:

1) Define terms associated with industrial instrumentation 2) Describe the major process variables controlled in the process industry 3) Explain the relationship between common process variables 4) Describe the components of control loops 5) Explain the function of process control loops 6) Define and describe the symbols used in process and instrumentation diagrams and process flow diagrams 7) Define terms associated with process control 8) Demonstrate the following Console Operator duties: -change controller mode -change set point -change valve output -access process history

PRPLTEK 206 PTEC-ADVANCED INSTRUMENTION II (3)

Lecture: 3 hour(s)

This course provides students with exposure to advanced process operation variables and a variety of instruments used to sense, measure, transmit, and control plant operations within the chemical manufacturing, biopharma/ manufacturing, oil refinery, wastewater treatment and other chemical industries.

Student Learning Outcome:

Define terms associated with process control and controllers ¢Describe the relationship between measuring instruments and their role in control loops ¢Explain the purpose and operation transmitters and transducers ¢Describe / Demonstrate the operation of local, remote, split range, cascade and ratio controllers ¢Describe / Demonstrate how to switch between control modes ¢Given a process control schematic, explain how the control loop functions ¢Identify the components of a control valve ¢Describe how the components of a control valve interact ¢Explain fail Safe positions for various types of control schemes ¢Describe and explain the operation of regulators ¢Describe common switches and their function ¢Explain how relays are used in process industries ¢Describe methods for maintaining integrity and reliability of signal transmission ¢Perform scaling calculations ¢Identify and describe the various control schemes used in process industries ¢Describe / Demonstrate bumbles transition between control modes

PRPLTEK 210 APPLIED INSTRUMENTATION ANALYSIS - I (4)

Lecture: 3 hour(s); Lab: 2 hour(s)

This class offers students hands-on experience with the analytical instruments used in typical laboratories such as gas chromatography and chemical titrating equipment. Students will learn to apply various methods of sampling and analyzing to determine the composition of typical liquids, solids, and gases used by the chemical industry.

Student Learning Outcome:

Describe the types of petrochemical and refining industry drawings that contain instrumentation ¢Explain the importance of process knowledge in troubleshooting ¢Describe the differences between analog and digital control ¢Explain and define the terms associated with PLCs ¢Define terms associated with advanced control schemes ¢Define terms associated with instrumentation power supply ¢Explain advantages of a DCS system ¢Define terms associate with ESD ¢Recall the methods used for determining if a sensing device functions properly

PRPLTEK 214 PTECH IV-QUALITY PERFORMANCE (3) C

Lecture: 3 hour(s)

The purpose of this course is to provide a relevant introductory overview involving process and laboratory validation and quality performance regulations for product and process operations in the biotechnology, biomanufacturing/biopharmaceutical, waste water treatment, cosmetic, food and beverage, biofuels, quality control, petroleum refining and other chemical and health industries. Some topics covered will be monitoring quality and process performance, operating consistency, continuous improvement, government regulations and guidelines.

Student Learning Outcome:

1. Students will describe the origin of validation and its function in the pharmaceutical and biopharmaceutical processes. 2. Students will discuss the various aspects and importance of validation principles and practices including total quality control and economics involved in successful chemical and biotech/biomanufacturing industries. 3. Students will describe the development studies and validation that are carried out through pre-approved protocols. 4. Students will discuss analytical methods scientifically developed to evaluate product residual reduction and other pre-determined acceptance limits.

PSYCHOLOGY

PSYCH 001 GENERAL PSYCHOLOGY I (3) UC:CSU

Lecture: 3 hour(s)
Advisory: English 28;

This is an introductory course in psychology as the scientific study of behavior and mental processes. Topics treated include history and systems of psychology, biological bases of behavior, sensation and perception, states of consciousness, learning, memory, cognition, personality, human development, motivation and emotion, health and stress, psychological disorders, and therapies.

Student Learning Outcome:

Per the APA Guidelines: Demonstrate psychology information literacy a. Read and summarize general ideas and conclusions from psychological sources accurately b. ;Describe what kinds of additional information beyond personal experience are acceptable in developing behavioral explanations (i.e., popular press reports vs. scientific findings c. Identify and navigate psychology databases and other legitimate sources of psychology information d. Articulate criteria for identifying objective sources of psychology information e. Interpret simple graphs and statistical findings

PSYCH 002 BIOLOGICAL PSYCHOLOGY (3) UC:CSU

Lecture: 3 hour(s)
Prerequisite: Psychology 1; Advisory: English 28

The course is about the biological bases of human behavior and as such it deals with the scientific understanding of the relationship between the brain and behavior. The course focuses on how biological mechanisms and brain processes may help to explain behavior. Topics covered include the following: issues in biopsychology, nerve cells and nerve impulses, synapses, the nervous system, brain plasticity, sleep, internal regulation, reproductive behaviors, emotional behaviors, learning and memory, language, and psychological disorders.

Student Learning Outcome:

1. Describe, explain, and evaluate the differences between psychological and biological bases of behavior. 2. Describe, explain, and evaluate the biological explanations of behavior. 3. Describe, explain, and evaluate the structure and function of the neuron. 4. Describe, explain, and evaluate the methods and approaches utilized in obtaining information about the brain.

PSYCH 014 ABNORMAL PSYCHOLOGY (3) UC:CSU

Lecture: 3 hour(s)
Prerequisite: PSYCH 001; Advisory: ENGLISH 028

This course examines the definition, possible causes, signs and symptoms and treatment of psychological disorders. Topics such as anxiety, mood disorders, schizophrenia, substance-related disorders, and personality disorders are emphasized. Additional topics will include cognitive disorders, disorders of childhood and adolescence, as well as sexual dysfunctions and substance-related disorders.

Student Learning Outcome:

Per APA Guidelines: Knowledge Base of Psychology: Students will demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in Abnormal psychology

PSYCH 032 PSYCHOLOGY OF WOMEN (3) UC:CSU

Lecture: 3 hour(s)
Advisory: English 28

This course explores the biological and cultural determinants of women's personality development. Explores cultural stereotypes, sex role development, female sexuality, and women's health issues in terms of the implications for personal and social change.

Student Learning Outcome:

Students will demonstrate their knowledge of the biological and cultural determinants of women's personality development, including cultural stereotypes, sex role development, female sexuality, and women's health issues in terms of the implications for personal and social change.

PSYCH 041 LIFE-SPAN PSYCHOLOGY: FROM INFANCY TO OLD AGE (3) UC:CSU

Lecture: 3 hour(s)
Prerequisite: Psychology 1; Advisory: English 28;

This course examines the interaction of physical, psychological, and social factors and their impact on human development and behavior from conception to death.

Student Learning Outcome:

Students will demonstrate their knowledge in the physical, cognitive, and socio-emotional domains at various points throughout the human lifespan.

PSYCH 069 PSYCHOLOGY IN FILM (3) CSU

Lecture: 3 hour(s)
Advisory: English 28

This course will survey a variety of films that portray specific human behaviors, characteristics, and disorders as discussed in General Psychology I. A lecture/discussion will accompany each film that provides a more in depth analysis of the relevant topics than are covered in General Psychology I. Topics covered will be drawn from research methods, biological psychology, sensation & perception, states of consciousness, learning, memory, intelligence, motivation, human development, personality, emotions & stress, human sexuality & gender, social psychology, abnormal psychology, and clinical psychology.

Student Learning Outcome:

Students will demonstrate critical observational skills through a rubric designed to evaluate students' ability to deconstruct and analyze films for accuracy in their depictions of the associated psychological topics discussed.

PUBLIC RELATIONS

PUB REL 001 PRINCIPLES OF PUBLIC RELATIONS (3) CSU

Lecture: 3 hour(s)

This course provides students an understanding of the broad aspects of relationships with the public as they apply to business, education, public agencies, and other organizations. It includes methods of either promoting favorable relations with various segments of the public or coping with situations involving adverse public opinion.

Student Learning Outcome:

Apply public relations communication theory in order to create essential public relations tools including news releases and a strategic public relations plan for a client. Formulate a publicity campaign using effective communication strategies.

PUB REL 002 PUBLIC RELATIONS TECHNIQUES (3) CSU

Lecture: 3 hour(s)
Advisory: Public Relations 1;

This course is a comprehensive study of various public relations techniques utilized in campaigns by businesses, educational institutions, public agencies, and other organizations. Case histories are used to stimulate student initiative in problem solving. The social impact of the various communications media and their role in public relations will also be stressed. The accompanying practicum gives students the opportunity to work with an on-campus or non-profit organization to create and implement a public relations plan.

Student Learning Outcome:

Students will be able to understand the broad aspects of relationships with the public as they apply to business, education, public agencies, and other organizations. Demonstrate a clear understanding of the basic four-step process of public relations, and its role in forming public opinion, as well as comprehend the history and ethics of public relations.

PUB REL 003 WRITING FOR PUBLIC RELATIONS (3)

Lecture: 3 hour(s)
Advisory: Public Relations 1 and English 101

This course will provide students with the persuasive powers of the written and spoken words that are explored and utilized in creating viable communicative messages, such as, news releases, feature stories, interviews, public service announcements, speeches, and institutional advertising.

Student Learning Outcome:

Students will be able to demonstrate excellent oral and written communication skills using print, broadcast, digital and social media.

REAL ESTATE

REAL ES 001 REAL ESTATE PRINCIPLES (3) CSU

Lecture: 3 hour(s)

This course covers the nature of real property, types of estates and tenancy, real estate and contract law, types of agency, title and title insurance, trust deeds/mortgages, liens/encumbrances, taxes, zoning, community property, financing and real estate math concepts. This course is one of three required courses as preparation for the examination given by the State of California for real estate brokers and salespersons.

Student Learning Outcome:

Student will describe and analyze the real estate industry with regards to residential sales in California. Students will understand the nature of encumbrances, liens, easements and encroachments.

REAL ES 003 REAL ESTATE PRACTICES (3) CSU

Lecture: 3 hour(s)

This course covers office procedures and practices in listings, advertising, prospecting, financing, exchanges, property management, salesmanship, land utilization and public relations. This course also provides students necessary information and materials a real estate agent utilizes in the day-to-day operations of a real estate business.

Student Learning Outcome:

Students will be able complete basic contracts used in residential real estate transactions. Student will learn the basics in conducting effective sales of lease transactions with clients. Students will construct a rent roll for commercial properties.

REAL ES 005 LEGAL ASPECTS OF REAL ESTATE I (3) CSU

Lecture: 3 hour(s)

This course covers the principles of property ownership and management with special emphasis on the law as it applies to community property, conveyances, deeds, trust deeds, leases, brokerage activities, liens, homesteads, wills, estates and taxes. Attention is also given to logical reasoning and the application of rules of law to everyday affairs in business.

Student Learning Outcome:

Students will understand the options for vesting and holding title in a real estate transaction. Students will understand the elements of contract formation. Students will be able to differentiate between single and dual agency.

REAL ES 007 REAL ESTATE FINANCE I (3) CSU

Lecture: 3 hour(s)

This course provides and explains the real estate lending process in detail from the initial loan application to the closing of the transaction. It provides a practical, step-by-step guide to the most popular real estate financing programs available in the country today. Subjects include: the loan application process, loan underwriting standards, conventional, FHA, and VA loans, seller financing, fair lending practices, and predatory lending.

Student Learning Outcome:

Student will identify different types of mortgages available in the market and explain their characteristics. Student will understand how to calculate fixed-rate mortgages (FRM) and adjustable-rate mortgages (ARM) as monthly payments. Student will identify the major players in the United States secondary mortgage market and explain how the market is functioning.

REAL ES 009 REAL ESTATE APPRAISAL I (3) CSU

Lecture: 3 hour(s)

The principles and methods for the estimation of value and price of land and improvements, factors affecting income and values of real estate, and trends in real property values are covered in this course. The role of the appraiser in determining the highest and best use for a particular site is presented. The importance of appraisal to the lender, insurer, seller, and potential buyer are discussed as are appraisal of partial real estate interests.

Student Learning Outcome:

1. Student will be able to identify various methods of appraising real property. 2. The student will be able to prepare the Sales Comparison Appraisal Report (page) of the Freddie Mac Standardized Appraisal Form for a single family home. 3. The student will recognize, evaluate, and explain the appraisal process as to the appropriate classical approach for the different types of property.

REAL ES 014 PROPERTY MANAGEMENT (3) CSU

Lecture: 3 hour(s)

This course will give students an in-depth view of practical issues facing practitioners, such as maintenance, accounting, administrative, and legal activities, and has up-to-date content on federal regulations, such as civil rights, fair housing, ADA issues, and environmental concerns.

Student Learning Outcome:

Students completing this course will understand the legal relationship between a landlord and a tenant. Students completing this course will know what a trust fund is and the importance of maintaining records on trust fund receipts.

REFRIGERATION&AIR CONDITIONING MECHANICS

REF A/C 100 AIR CONDITIONING PROJECT MANAGEMENT (3)

Lecture: 3 hour(s)

This course provides HVAC Industry Project Manager instruction. Topics covered will include blueprint reading, Microsoft spreadsheets, Microsoft Word documents, Microsoft Project, design build criteria, estimating, change orders, request for information, GANTT Charts, scheduling, schedule of values, purchase orders, submittals, transmittals, reading of air balance reports, warranty letters and close out packages.

Student Learning Outcome:

The student will be able to correctly identify different mechanical symbols that would appear on a blue print. The student will be able to give a 5 minute oral presentation on a subject related to project management. The student will be able to identify the tools used by a project manager.

REF A/C 101 AIR CONDITIONING AND REFRIGERATION PRINCIPLES AND PRACTICES-FIRST SEMESTER (9)

Lecture: 3 hour(s); Lab: 18 hour(s)

This course covers Refrigeration and Air Conditioning Theory, Fundamentals, and practices for entry level students. Topics discussed include refrigeration and air conditioning system components, maintenance procedures, service procedures, and Thermodynamics.

Student Learning Outcome:

1. Students properly identify the 4 major components of a refrigeration system. 2. Students will use technical manuals to select appropriate compression system components. 3. Students will identify the operating characteristics of the (5) major compressor types. 4. Students will identify appropriate maintenance procedures for air and water cooled condensers.

REF A/C 105 SOLAR WATER & POOL HEATING SYSTEM PRINCIPLES (3)

Lecture: 3 hour(s)

This is an introductory lecture course on Solar Thermal. The need for renewable energies, along with planning and installing solar thermal systems will be covered. The solar heating of swimming pools, domestic hot water, and building air will be emphasized.

Student Learning Outcome:

The student will be able to: List the reasons for Solar and Green Technologies List the Components of a Solar Thermal System Recite the sequence of operation of a solar thermal system.

REF A/C 110 SOLAR WATER & POOL HEATING SYSTEM PRACTICES (2)

Lab: 6 hour(s)

This course is designed for students interested in a career in the solar thermal industry. The fundamental practices and functions of the solar thermal industry will be introduced. This course covers the skills and practices for planning, installation, and maintenance of all the necessary components for a solar thermal water system.

Student Learning Outcome:

1. Discuss the history of solar thermal as a renewable energy and its development. 2. List the regions of the globe where solar thermal as a renewable option is most or least viable. 3. List the components needed for various solar thermal renewable energy sources and systems.

REF A/C 123 PIPE AND TUBE JOINING PROCESSES (1)

Lab: 3 hour(s)

This course assesses assembly of components into operating systems using techniques employed by the industry.

Student Learning Outcome:

After students construct a copper form, called a "monster", using the various tube joining methods, the monster will be pressure tested and vacuum tested.

REF A/C 124 REFRIGERATION ELECTRICAL CIRCUITS AND CONTROLS (5)

Lab: 15 hour(s)

This course covers the application of electrical principles and practices, including safety and PPE, utilized in the performance of the duties required of a HVACR Technician.

Student Learning Outcome:

The Student Learning Outcome consists of reading an electrical schematic that simulates the TV show "Jeopardy" and constructing a project board that functions properly.

REF A/C 125 REFRIGERATION SYSTEM COMPONENTS (3)

Lecture: 3 hour(s)

Instruction is given in basic electricity and electrical components as they relate to the HVAC&R industry. The use of electrical schematic diagrams is stressed throughout the semester.

Student Learning Outcome:

1. List the types of copper tubing and appropriate applications, along with connection and leak detection techniques. 2. List refrigeration and A/C electrical systems, furnace ignition systems, and other related controls. 3. List the types of electric motors used in the HVAC&R industry and their applications.

REF A/C 133 REFRIGERATION SERVICE PROCEDURES I (3)

Lab: 9 hour(s)

Prerequisite: Refrigeration and A/C Mechanics 123; and Refrigeration and A/C Mechanics 124; and Refrigeration and A/C Mechanics 125; Corequisite: Refrigeration and Air Conditioning Mechanics 134; and Refrigeration and Air Conditioning Mechanics 135

This course involves servicing procedures applied to commercial and domestic refrigeration systems including restaurants, supermarkets and industrial process cooling. Students are required to inspect and analyze coolers, freezers and ice makers.

Student Learning Outcome:

Student Learning Outcomes The student will be able to use test equipment in order to diagnose a refrigeration and air conditioning system. The student will use refrigerant gages and thermometers to calculate superheat sub cooling, and air temperature readings, and interpret their meaning. The student will use volt, ohm, and amperage readings to check the function of individual refrigeration system components.

REF A/C 134 SERVICE FOR COMMERCIAL REFRIGERATION (3)

Lab: 9 hour(s)

Prerequisite: Refrigeration and A/C Mechanics 123; Refrigeration and A/C Mechanics 124; Refrigeration and A/C Mechanics 125; Corequisite: Refrigeration and Air Conditioning Mechanics 133; and Refrigeration and Air Conditioning Mechanics 135;

This course focuses on troubleshooting procedures in diagnosing and repairing malfunctions in domestic and commercial refrigeration systems. The lab work emphasizes the analyzing and repairing of mechanical and electrical components, with the proper use of tools and test equipment.

Student Learning Outcome:

The student will gain mastery of Refrigeration and Air Conditioning Tools. ¢The student will use a torch safely. ¢The student will take amperage, voltage, and ohm readings. ¢The student will evacuate a system with a vacuum pump. ¢The student will utilize a gage manifold safely.

REF A/C 135 AIR CONDITIONING AND REFRIGERATION (3)

Lecture: 3 hour(s)

Prerequisite: Refrigeration and A/C Mechanics 123; Refrigeration and A/C Mechanics 124; Refrigeration and A/C Mechanics 125; Corequisite: Refrigeration and Air Conditioning Mechanics 133; and Refrigeration and Air Conditioning Mechanics 134;

This course focuses on refrigeration principles including theory of heat, automatic controls, electric motors, and commercial refrigeration. This course gives an in depth look at the refrigeration cycle and refrigeration components. This course discusses thermodynamics, including the pressure temperature chart, latent heat, and system efficiency.

Student Learning Outcome:

The student will evaluate various air conditioning and refrigeration symptoms. The student will evaluate how different heat load conditions affect a refrigeration system. The student will utilize superheat and sub cooling readings to determine system performance.

REF A/C 141 APPLIED REFRIGERATION AND AIR CONDITIONING PRINCIPLES (3)

Lecture: 3 hour(s)

This course focuses on Chemistry as applied to the HVAC and R industry. Areas covered include Hydronics, heating and cooling load calculations, control wiring, introduction to the Uniform Mechanical Code, pneumatic controls, troubleshooting approaches, and employment.

Student Learning Outcome:

Students will calibrate a direct acting thermostat

REF A/C 143 REFRIGERATION SERVICING PROCEDURES II (3)

Lab: 9 hour(s)

Prerequisite: Refrigeration and A/C Mechanics 133; Refrigeration and A/C Mechanics 134; Refrigeration and A/C Mechanics 135; Corequisite: Refrigeration and Air Conditioning Mechanics 141; and Refrigeration and Air Conditioning Mechanics 145

Troubleshooting procedures in diagnosing and repairing malfunctions in refrigeration systems are studied in this course with emphasis on mechanical problems.

Student Learning Outcome:

Students will install a time clock.

REF A/C 145 AIR CONDITIONING AND REFRIGERATION MECHANICS (3)

Lab: 9 hour(s)

Prerequisite: Refrigeration and A/C Mechanics 133; and Refrigeration and A/C Mechanics 134; and Refrigeration and A/C Mechanics 135; Corequisite: Refrigeration and Air Conditioning Mechanics 141; and Refrigeration and Air Conditioning Mechanics 143

This is a study on diagnosis and repair of refrigeration, air conditioning, and gas heating systems with emphasis on the correct application of electrical theory.

Student Learning Outcome:

Students will replace a three phase hermetic compressor.

REF A/C 159 PRINCIPLES AND PRACTICES OF ELECTRICAL CIRCUITS AND CONTROLS (4)

Lecture: 2.5 hour(s); Lab: 4.5 hour(s)

This course covers basic electricity, magnetic starters, contactors, and relays. Pressure and temperature controls, millivolt and low voltage systems, modulating controls, time clocks, and defrost systems are studied.

Student Learning Outcome:

1. Plan, design, and construct working REF AC Circuit.

REF A/C 160 REFRIGERATION SYSTEM PRINCIPLES AND PRACTICES (4)

Lecture: 2.5 hour(s); Lab: 4.5 hour(s)

Students learn the fundamental refrigeration system principles, including system components refrigerants, basic electricity, motors, controls, and test equipment in domestic and commercial systems. Students get an introduction to air conditioning with an emphasis on the refrigeration cycle, and appropriate temperatures.

Student Learning Outcome:

The student will be able to identify and describe the function of the compressor, metering device and evaporator. The student will be able to identify the compressor, condenser, metering device, and evaporator. The student will be able to state the locations of the suction line, discharge line.

REF A/C 161 AIR CONDITIONING SYSTEM PRINCIPLES AND PRACTICES (4)

Lecture: 2.5 hour(s); Lab: 4.5 hour(s)

This is a study of human comfort, psychometrics and heat loads. Air distribution and duct sizing, air conditioning equipment, test instruments and measurements and servicing are explored.

Student Learning Outcome:

Students will troubleshoot and replace a defective contactor

REF A/C 162 PIPING PRINCIPLES AND PRACTICES (4)

Lecture: 2.5 hour(s); Lab: 4.5 hour(s)

Instruction is given on refrigerant tubing and fittings, water piping and fittings, pipe sizing, soft soldering, silver brazing and schematic drawings.

Student Learning Outcome:

After students construct a copper form, called a “monster”, using the various tube joining methods, the monster will be pressure tested and vacuum tested.

REF A/C 164 GAS HEATING SYSTEMS (4) CSU

Lecture: 2.5 hour(s); Lab: 4.5 hour(s)

This course will provide the necessary skills needed for proper installation, servicing and troubleshooting of natural gas furnaces. Topics include principles of gas combustion, gas ignition, controls, installation, and ventilation.

Student Learning Outcome:

Students will replace a defective gas valve.

REF A/C 165 THERMAL ENERGY STORAGE/HEAT RECOVERY (4)

Lecture: 2.5 hour(s); Lab: 4.5 hour(s)

Thermal Energy Storage theory and component selection based on load profile and cost.

Student Learning Outcome:

1. Discuss the types of pipe & copper tubing and appropriate application, along with connection and leak detection techniques. 2. Discuss Ice refrigeration and A/C electrical systems, furnace ignition systems, and other related controls.

REF A/C 166 WATER TOWERS, EVAPORATIVE CONDENSERS AND CHEMICAL TREATMENT (4)

Lecture: 4 hour(s)

This course will focus on the fundamentals of water towers and evaporative condensers used to obtain high efficiency performance of refrigeration and air conditioning systems. Students will learn how to select the proper size depending on local humidity and desired operating conditions, proper maintenance, additives and procedures and techniques available to the technician.

Student Learning Outcome:

Students will develop water treatment procedures for cooling towers and evaporative condensers.

REF A/C 176 HEATING AND AIR CONDITIONING I (3)

Lecture: 3 hour(s)

Instruction is given in heating for workers in the heating and air conditioning field. Fundamentals of fuels, venting, and heat transfer are covered. An introduction to natural gas furnaces, hot water systems and heat pumps are emphasized.

Student Learning Outcome:

The student will be able to differentiate the main types of heating systems and explain their operation. ¢The student will state the sequence of operation of a residential furnace. The student will define the major components of a heat pump.

REF A/C 177 HEATING AND AIR CONDITIONING II (3)

Lecture: 3 hour(s)

The cooling portion of the air conditioning field for employed mechanics is explored in this course. Types of systems, the refrigeration cycle, heat gain and heat loss calculations, air distribution equipment, selection of controls, and sales procedures are reviewed.

Student Learning Outcome:

1. Perform heat gain and heat loss calculations. 2. Perform air duct sizing of air ducts in a residential A/C system.

REF A/C 185 DIRECTED STUDY - AIR CONDITIONING/ REFRIGERATION (1)

Lecture: 1 hour

This course allows students to pursue a directed study in Air conditioning & Refrigeration on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in HVACR.

REF A/C 187 SERVICING I (3)

Lecture: 3 hour(s)

This course reviews servicing procedures, manufacturer’s recommendations, installation and servicing of commercial and industrial refrigeration and air conditioning systems.

Student Learning Outcome:

Students will describe the operation of a water-source heat pump.

REF A/C 188 SERVICING II (3)

Lecture: 3 hour(s)

Topics covered in this course include: electrical diagrams for testing control circuits; the total electrical system and protection devices on package units; analysis of failure and compressor motor burnout cleanup procedures.

Student Learning Outcome:

1. Discuss soldering and brazing techniques as they relate to servicing. 2. Discuss refrigeration and A/C electrical schematics,

REF A/C 199 MECHANICAL CODE I -HVACR (3)

Lecture: 3 hour(s)

Basic heating, air-conditioning and refrigeration (HVACR) mechanical codes and ordinances are the focus of this course. General codes, installation methods and equipment, electrical requirements and other specified areas in the various ordinances are reviewed.

Student Learning Outcome:

1. List mechanical codes by topic and article. 2. Identify topic specific HVACR code requirements such as; tubing size, circuit protection, branch circuits, and equipment sizing. 3. Interpret various mechanical codes applied to various installation examples.

REF A/C 202 REFRIGERATION FUNDAMENTALS (3) CSU

Lecture: 3 hour(s)

This course covers applied thermodynamics, types of energy, gas laws, sensible and latent heat transfer.

Student Learning Outcome:

1. Students properly identify the 4 major components of a refrigeration system. 2. Students will use technical manuals to select appropriate compression system components.

REF A/C 203 COMPRESSION SYSTEMS OF REFRIGERATION (3) CSU

Lecture: 3 hour(s)

Instruction is given in the vapor cycle of refrigeration systems, including the study of refrigerants and their behavior in the system.

Student Learning Outcome:

Students will develop a checklist for leak checking vapor refrigeration systems.

REF A/C 204 FUNCTIONS AND COMPRESSION SYSTEM COMPONENTS (3)

Lecture: 3 hour(s)

This Course covers the technical aspects of all major refrigeration system components. Topics covered include the principles of operation of various types of compressors, refrigerant flow controls, and system design.

Student Learning Outcome:

1. Students will select the correct type of compressor for various applications. 2. Students will select the most appropriate metering device for various refrigeration systems.

REF A/C 208 REFRIGERENT MANAGEMENT - EPA SECTION 608 CERTIFICATION (4) CSU

Lecture: 4 hour(s)

This course covers Refrigerant Management including the EPA Section 608 ruling, the Montreal Protocol, Ozone depletion and Global Warming. Preparatory course for the EPA section 608 technician certification. Type I, II, III, and Universal Certification. NOTE: Certification test will be available at the end of the semester for an additional fee.

Student Learning Outcome:

1. Students will define the three R™s, Recovery, Recycle and Reclaim. 2. Students will identify TYPE I, Type II, and TYPE III equipment. 3. Students will describe the EPA Section 608 ruling.

REF A/C 209 NORTH AMERICAN TECHNICIAN EXCELLENCE (NATE)-AIR CONDITIONING SPECIALIST CERTIFICATION PREPARATION (4) RPT 2

Lecture: 4 hour(s)

This course is a preparatory course for the industry standard NATE A/C Specialist certification examination. Topics covered in this course include safety, thermodynamics, electrical system diagnostics, airflow measurements, mechanical code, installation, service, tools, and more!

Student Learning Outcome:

1. Students will identify refrigerant types and appropriate application. 2. Students will define recovery, recycle, reclaim. 3. Students will define high, medium, and low temperature ranges.

REF A/C 210 REFRIGERATION SYSTEM EFFICIENCY FACTORS (3)

Lecture: 3 hour(s)

This course will cover refrigerant, pressure enthalpy diagram, refrigeration piping, system evacuation, charging, and maintenance. The beginning of the class will include a review of terminology and the refrigeration cycle.

Student Learning Outcome:

Students will develop a checklist for performing preventive maintenance on a packaged air conditioning unit.

REF A/C 250 INDOOR AIR QUALITY (3)

Lecture: 3 hour(s)

This course emphasizes on operation of systems to provide quality air to indoor environments. AQMD requirements and pending regulations are reviewed. Organizing and implementing maintenance programs that include indoor air quality assessment and air balancing HVAC systems are covered.

Student Learning Outcome:

SLO 1. Discuss the health aspects of IAQ. SLO 2. Discuss airflow as it relates to IAQ. SLO 3. Discuss chemicals that can have a negative impact on IAQ.

REF A/C 255 ENERGY MANAGEMENT (4)

Lecture: 4 hour(s)

The course covers the use of computers in the HVACR industry and the application of energy management technology in the improvement of energy efficiencies. The goal is to prepare the HVACR Technician in the use of modern technology, including computers in the continuing quest for improved energy management.

Student Learning Outcome:

SLO #1 The student will gather information on the various components of an energy management system. SLO #2 The student will critically analyze and then organize information on the application of an energy management system. SLO #3 The student will properly apply the English language to write an explanatory paper about rationales for using various energy management systems or practices.

REF A/C 285 DIRECTED STUDY - AIR CONDITIONING/ REFRIGERATION (2)

Lecture: 2 hour(s)

This course allows students to pursue a directed study in the HVACR industry on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in HVACR.

REF A/C 385 DIRECTED STUDY - AIR CONDITIONING/ REFRIGERATION (3)

Lecture: 3 hour(s)

This course allows students to pursue a directed study in HVACR on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in HVACR.

REF A/C 941 COOPERATIVE EDUCATION-REFRIGERATION & AIR CONDITIONING MECH (4)

Lecture: 4 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

RESTAURANT MANAGEMENT

RESTMGT 100 RESTAURANT MANAGEMENT (3) CSU

Lecture: 3 hour(s)

Introduction to managing in the restaurant industry. Effective communication, goal setting, management theory, problem solving and creating a team work environment will be discussed.

Student Learning Outcome:

Identify proper Hospitality Restaurant Management styles, techniques, goal setting, problem solving. motivating and protocol Compare and contrast legal issues as they pertains to the hospitality industry Evaluate proper management practices in the hospitality industry

SIGN GRAPHICS

SGNGRPH 101 INDIVIDUAL LETTERING (10)

Lecture: 5 hour(s); Lab: 15 hour(s)

Instruction covers identification of materials, tools, and brushes. Training is offered in drawing and brush lettering Gothic, Roman, Script, and casual letter styles. This course also includes training in techniques of layout, letter spacing, color mixing in reference to the production and sale of temporary signs. Students prepare show cards, paper signs, and other temporary display saleable items.

Student Learning Outcome:

Students will be able to design and execute a show card using basic layout and design techniques using industry standard tools to produce a finished product. Students will be able to design and execute a paper banner using basic layout and design techniques and employing the proper materials and tools to complete a finished product.

SGNGRPH 102 EXTERIOR DISPLAY SIGNS (10)

Lecture: 5 hour(s); Lab: 15 hour(s)
Prerequisite: Sign Graphics 101;

This course covers the tools and materials used to produce outdoor signs. In addition, students design, paint, and letter signs inside and outside the classroom. Students will work on a variety of materials including; canvas, plywood, aluminum, and plastic substrates, Introduction to computer generated lettering and application techniques for vinyl letters. Instruction will emphasize sign layout and design. Students will produce a 4/X8' plywood sign and an exterior wall sign.

Student Learning Outcome:

Student will design, layout and create a 4' X 8' plywood sign. Students will produce a plaque and gild with 24 karat gold.

SGNGRPH 103 WINDOW SIGNS (10)

Lecture: 5 hour(s); Lab: 15 hour(s)
Prerequisite: Sign Graphics 102;

Instruction covers the use of specialized tools and materials used to produce window signs. Training includes painting on exterior and reverse windows, stippling techniques, and applications of vinyl letters on glass, both exterior and reverse. In addition, students will paint a temporary splash window and apply 23K gold leaf (water gilding). Intermediate computer design including the use of plotters and application techniques.

Student Learning Outcome:

Students will produce an exterior window sign using computer generated vinyl letters. Students will hand paint a reverse window sign.

SGNGRPH 104 ADVANCE COMPUTER & DESIGN (10)

Lecture: 5 hour(s); Lab: 15 hour(s)
Prerequisite: Sign Graphics 103;

Students will learn advanced design techniques, backgrounds, and color theory. Practical experience will be gained on advanced computer study, applications, and a variety of computer sign software. In addition, information will be given on small business practices - including management and pricing. Students will produce a sandblasted sign, a custom contour-cut sign, and an antique sign,

Student Learning Outcome:

Students will design and layout a sandblasted dimensional sign, Students will research design and hand paint an antique sign. Students will design and print a digital ink jet sticker or decal.

SGNGRPH 201 FUNDAMENTALS OF MURAL PAINTING (2)

Lab: 6 hour(s)

This course will teach basic mural painting techniques including; design, layout, and execution. Students will be introduced to the proper tools and paints for exterior, long term murals.

Student Learning Outcome:

Students will research historical material and contemporary mural designs to facilitate layout and design of a large wall mural. Students will grid off and participate in the direct layout to the wall. Students will paint a finished wall mural as part of a team.

SGNGRPH 203 SILK SCREEN PROCESSING I (2) RPT 1

Lab: 6 hour(s)

This course will provide an introduction to the screen printing trade. Students will learn to make silk screens and will learn about copy preparation, mesh selection, frames, stencil systems, printing techniques, ink & substrate compatibility, reclamation of screens. Students will print on a variety of surfaces.

Student Learning Outcome:

Students will create a finished screen and printed project including two color using photo emulsion. Students will set up and print a multi-color textile.

SGNGRPH 204 SILK SCREEN PROCESSING II (2)

Lab: 6 hour(s)
Prerequisite: Sign Graphics 203

Students will be introduced to the use of solvent based inks; including; color mixing, application, and clean-up. This course also offers practice on a variety of substrates and uses including four color process printing.

Student Learning Outcome:

Students will create artwork using Photoshop for photo reproduction and execute finished screen and print a minimum of 25 consistent copies. Students will develop a multi-color design using a dark textile substrate.

SGNGRPH 211 AUTOMOTIVE GRAPHICS (2)

Lecture: 1 hour; Lab: 2 hour(s)

This course will teach the fundamentals of computer software in producing vinyl graphics, patterns, and stencils for application of vehicle graphics. Students will design and cut various materials for the production of painted and vinyl graphics on vehicles. They will learn various application techniques and the use of paints including basic lettering and design for vehicle appropriate graphics.

Student Learning Outcome:

Students will research and execute a computer generated stencil for an automobile graphic. Students will execute a basic casual letter style directly onto a vehicle surface.

SGNGRPH 212 SIGN DESIGN AND LAYOUT (2) C

Lecture: 1 hour; Lab: 2 hour(s)

Student will learn layout and design of commercial signs. Use of basic rules, appropriate fonts, proper emphasis and the effective utilization of panels will be covered in the course. Hand drawing and sign specific software will be practiced.

Student Learning Outcome:

Students will design a finished layout sketch for a potential customer using sign specific software.

SOCIOLOGY

SOC 001 INTRODUCTION TO SOCIOLOGY (3) UC:CSU

Lecture: 3 hour(s)

This course is designed to acquaint students with the major principles of sociology as they are applied to contemporary social issues. With the use of several theoretical perspectives it examines social structures within American society and other cultures from macro and micro perspectives. There are extensive references to contemporary research findings on social structure, group dynamics, social stratification, and social institutions.

Student Learning Outcome:

1. Students will utilize basic theoretical perspectives and identify their strengths and weaknesses.

SOC 002 AMERICAN SOCIAL PROBLEMS (3) UC:CSU

Lecture: 3 hour(s)

This course provides identification and analysis of contemporary social problems in the United States with an attempt to establish criteria by which an individual can judge the probable effectiveness of various schemes for social betterment.

Student Learning Outcome:

Students will be able to answer the following questions: 1. What is a Social Problem and discuss the objectives and subjective elements of social problems. 2. Be able to define and give examples of the following elements of social structure and culture (institutions, social groups, status, roles, beliefs, values, norms, sanctions and symbols). 3. Be able to explain "social imagination" and discuss its relevance to the study of social problems.

SOC 028 THE FAMILY: A SOCIOLOGICAL APPROACH (3) UC:CSU

Lecture: 3 hour(s)

This course provides a sociological analysis which contributes to an understanding of the origin, structure, and functions of marriage and family life. This course includes, but is not limited to, studies of gender roles, legal controls, religious attitudes, mixed marriages and financial and family planning.

Student Learning Outcome:

Students will be able to do understand family trends from the past sixty years and analyze the changes in family dynamics.

SOLID WASTE MANAGEMENT TECHNOLOGY

SWM TEK 101 INTRODUCTION TO SOLID WASTE MANAGEMENT (3)

Lecture: 3 hour(s)

This course offers instruction in the fundamentals of solid waste management including characteristics of solid wastes, refuse storage, collection, transportation, disposal methods, financing methods, and solid waste planning.

Student Learning Outcome:

1. Be able to describe the characteristics of solid waste 2. Be able to describe different solid waste disposal methods 3. Be able to discuss the proper collection, transportation, and storage of refuse 4. Be able to discuss the accepted financing and planning methods in solid waste management

SWM TEK 102 COLLECTION SYSTEMS, ROUTING, AND MANAGEMENT (3)

Lecture: 3 hour(s)

This course offers in-depth instruction in the techniques and fundamentals involved in efficient solid waste routing, including topographical variables such as: alleys, one-way streets, hilly areas, downtown areas, and residential communities. The course studies routing for mechanized solid waste collection activities, routing to affect increased productivity, cost reduction, and improved public relations through proper route planning and safety.

Student Learning Outcome:

1. Be able to demonstrate the understanding of how to communicate with the public in a positive manner. 2. Be able to identify and list the purpose of public information exchange as it affects his/her responsibility in Solid Waste Management. 3. Be able to demonstrate the understanding of organized refuse collection through efficient routing techniques. 4. Be able to demonstrate the knowledge of different types of collection systems and vehicles. 5. Be able to demonstrate the understanding of how to measure productivity and routing and how to specify equipment to maximize route productivity.

SWM TEK 107 WASTE REDUCTION AND RECYCLING (3)

Lecture: 3 hour(s)

This course is an introduction to the science of solid resource recovery. It presents a broad overview of the methods and techniques, equipment and facilities required in recovery processes. Emphasis is placed on costs and management of the recovery process. Nuclear and non-nuclear types of resource recoveries are studied.

Student Learning Outcome:

1. Be able to demonstrate an understanding of solid waste characteristics as it pertains to resource recovery. 2. Be able to differentiate various methods of collection, handling and disposal of a multi-faceted municipal solid waste stream. 3. Be able to demonstrate the understanding of increasing prominence of recycling programs along with resultant regulatory developments in the solid waste field.

SWM TEK 108 SOLID WASTE FACILITIES (3)

Lecture: 3 hour(s)

This course covers history and legislation of solid waste generation, and the need for effective transfer stations and landfills. It contains an overview of the handling of materials for both resource recovery and disposition of hazardous and non-hazardous waste. The future needs of the public and private sectors are studied.

Student Learning Outcome:

1. Be able to demonstrate an understanding of the history, concept, and development of landfills. 2. Be able to discuss the concept, importance, and design of transfer stations. 3. Be able to describe the concept of materials recovery facilities. 4. Be able to demonstrate an understanding of compost and mulch processing facilities. 5. Be able to discuss the concept of waste-to-energy and conversion technology

SWM TEK 911 COOPERATIVE EDUCATION - SOLID WASTE MANAGEMENT TECHNOLOGY (1) C RPT 3

Lecture: 1 hour

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

SWM TEK 921 COOPERATIVE EDUCATION - SOLID WASTE MANAGEMENT TECHNOLOGY (2) C RPT 3

Lecture: 2 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

SWM TEK 931 COOPERATIVE EDUCATION - SOLID WASTE MANAGEMENT TECHNOLOGY (3) C RPT 3

Lecture: 3 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

SPANISH

SPANISH 001 ELEMENTARY SPANISH I (5) UC:CSU

Lecture: 5 hour(s)

This course stresses the fundamentals of pronunciation and grammar, practical vocabulary, useful phrases, and the ability to understand, read, write and speak simple Spanish. It includes basic facts on geography, customs, and culture of Spain and Latin America.

Student Learning Outcome:

Students will communicate in Spanish, orally and in writing, at a novice high level (see ACTFL), using the present tense, the present progressive, the periphrastic future tense and the preterit tense: 1) Students will be able to hold a conversation at a novice high level, 2) Students will be able to read a graded paragraph containing elementary vocabulary, and 3) Students will be able to write sentences in Spanish dealing with daily life.

SPANISH 002 ELEMENTARY SPANISH II (5) UC:CSU

Lecture: 5 hour(s)
Prerequisite: Spanish 1; Spanish 22;

This course is a continuation of Spanish 1. It stresses further aspects of pronunciation and grammar, practical vocabulary, useful phrases, and the ability to understand, read, write and speak Spanish. It includes further facts on geography, customs, and culture of Spain and Latin America.

Student Learning Outcome:

1. Students will be able to describe their childhood in the imperfect tense of the indicative mood.

SPANISH 035 SPANISH FOR SPANISH SPEAKERS I (5) UC:CSU

Lecture: 5 hour(s)

This course is intended for fluent Spanish speakers who have had no formal instruction in Spanish. Students are introduced to Spanish grammar and spelling rules with a focus on reading and writing skills and vocabulary expansion. Students practice the four language skills in the context of the geography, customs, and cultures of the Spanish-speaking countries and of the Latino experience in the United States. No prerequisites. Credit is given for either Spanish 35 or Spanish 2, but not both.

Student Learning Outcome:

The student will write a short essay in Spanish about a cultural tradition or a family celebration that is personally meaningful.

SPANISH 036 SPANISH FOR SPANISH SPEAKERS II (5) UC:CSU

Lecture: 5 hour(s)

This course is a continuation of Spanish 35 and it completes the study of grammar and continues the development of reading and writing skills.

Student Learning Outcome:

The student will write a 3 page essay analyzing a short story in Spanish.

STREET MAINTENANCE

ST MAIN 103 STREET MAINTENANCE (APPLIED CALCULATIONS IN PUBLIC WORKS) (3)

Lecture: 3 hour(s)

This course is a practical mathematics exploration with an emphasis on application problems encountered in 'Street Maintenance', 'Street Services', and other areas of 'Public Works'.

Student Learning Outcome:

1. Apply appropriate mathematical rules to solving electrical calculations such as; whole numbers, fractions, percentages, ratios and proportions, basic algebra, order of operations, multiplication, division, addition, and subtraction, etc. 2. Apply appropriate units of measure such as; percentages, volt, ohms, amperes, watts, sq. ft. cubic volume, etc. 3. Select situational appropriate formula and or apply proper measurements and calculations to solve various word problems such as: inventories, material estimates, volume, area, size, etc.

ST MAIN 200 SURVEY OF STREET SERVICES (3)

Lecture: 3 hour(s)

This course provides an introduction to all common functions of Street Services, as an element of 'Public Works'. The history, current practices in Street Services, trends, and programs will be covered.

Student Learning Outcome:

1. Discuss the history and development of the "Bureau of Street Services." 2. Identify the principles and practices of Urban Forestry. 3. Describe resurfacing operations.

ST MAIN 201 STREET MAINTENANCE I (3)

Lecture: 3 hour(s)

This course covers the history and current practices in street maintenance techniques and programs. This is a basic course in the general theory of street maintenance as applied to concrete and asphalt.

Student Learning Outcome:

1. Discuss principle and practices for asphalt and concrete usage as a road material. 2. Describe the cleaning and sanitation of roadwork equipment. 3. Describe the laws and ordinances pertaining to resurfacing operations.

ST MAIN 202 STREET MAINTENANCE II (3)

Lecture: 3 hour(s)

This course provides an in depth study of asphalt, preventative maintenance of asphalt and of concrete pavements, and applicable codes for improvement and repair. Also included is the introduction of estimating and calculations for materials usage.

Student Learning Outcome:

1. Discuss the history and development of asphalt and concrete pavements. 2. Identify tool & techniques for preventive maintenance on asphalt and concrete pavements. 3. Identify appropriate codes related to asphalt and concrete maintenance work.

ST MAIN 203 STREET MAINTENANCE III (3)

Lecture: 3 hour(s)

This course covers engineering plan reading and math concepts necessary for the calculation of amounts of material required for public works maintenance operations. Emphasis on solving practical math problems in estimating concrete, asphalt, and other materials necessary for the completion of street, sidewalk and other types of maintenance work.

Student Learning Outcome:

1. Discuss the principles and practices of estimating. 2. Demonstrate estimating for a classroom defined job requirement.

ST MAIN 204 REPORT WRITING FOR PUBLIC WORKS (3)

Lecture: 3 hour(s)

This course covers report writing in the public works arena. The basic mechanics of the English language and analysis and preparation of reports for public works will be covered.

Student Learning Outcome:

1. Write clear and concise public work reports. 2. Improve basic grammar and apply the grammar rules to writing public work reports.

ST MAIN 205 ISSUES AND PRACTICES IN PUBLIC WORKS (3)

Lecture: 3 hour(s)

This course covers street use, street lighting, street trees, lot cleaning, sanitation, engineering and personnel management. State and Municipal Codes, property descriptions and public relations will also be covered.

Student Learning Outcome:

1. using a map, locate several location for calls of service. 2. Drive to various predetermined map locations.

ST MAIN 206 STREET MAINTENANCE VI (3)

Lecture: 3 hour(s)

This course provides an overview along with hands on experiences with heavy equipment used in street maintenance. Safety and preventative maintenance included.

Student Learning Outcome:

1. Discuss the principles and practices of heavy equipment operations. 2. List safety concerns and discuss mitigation when operating heavy equipment.

ST MAIN 207 STREET MAINTENANCE VII (HAZARDOUR MATERIALS EMERGENCY MANAGE (3)

Lecture: 3 hour(s)

This course covers the prescribed responses in the first hour of a hazardous materials incident. This course satisfies OSHA Standards in Hazardous Waste Operations Code 29 CFR 1910.120. The course includes specific training requirements of hazardous waste workers and emergency responders.

Student Learning Outcome:

1. List hazardous materials and describe how to identify and limits exposure. 2. Describe how to mitigate various hazardous material under normal and emergency situations.

ST MAIN 208 STREET MAINTENANCE TECHNOLOGY (3)

Lecture: 3 hour(s)

The basic concepts of management and supervision in the area of public works are introduced. Topics include motivating employees, effective communication, problem solving, leadership skills and current practices.

Student Learning Outcome:

1. Discuss the principles and practices of organizational management. 2. List the pros and cons of various management approaches.

ST MAIN 209 DRIVERS LICENSE PREPARATION (CLASS "B") (2)

Lecture: 1.5 hour(s); Lab: 1.5 hour(s)

This class prepares the student to successfully obtain a California Class B Driver's License. Information is provided to prepare the student for the written portion of the exam and laboratory/field driving is provided to prepare the student for the driving portion of the exam.

Student Learning Outcome:

1. Obtain a Class "B Driver's License.

ST MAIN 210 MOTOR SWEEPER OPERATOR (3)

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)
Prerequisite: Street Maintenance 209;

Motor Sweeper Operator School is to serve as the focal point for the development and training of Street Services personnel to enhance the capability and effectiveness of street cleaning operations. This course spans the entire spectrum of safety, maintenance, and operations.

Student Learning Outcome:

1. Discuss the safety aspects of sweeper operation. 2. Discuss maintenance aspects of sweeper operation. 3. Demonstrate proper set up, operation, and shut down of a motor sweeper unit.

ST MAIN 240 INTRODUCTION TO MANAGEMENT IN PUBLIC WORKS (3) C

Lecture: 3 hour(s)

The course will address the scope and nature of the field of public administration with attention given to the Public Works field as well as to practical elements of the current conceptual framework within which American Public Administration is practiced. The general format for the class will be discussion/participation with student analysis of selected articles and case studies taken from American Public Administration literature.

Student Learning Outcome:

1. Discuss the theory of Management as applied to Public Works. 2. Identify the principles and practices Common Public Works Management.

ST MAIN 242 MANAGEMENT IN PUBLIC WORKS (3) C

Lecture: 3 hour(s)

The course will develop skills that address the scope and nature of the field of public administration with attention given to the Public Works field as well as to practical elements of the current conceptual framework within which American Public Administration is practiced. The general format for the class will be discussion/participation with student analysis of selected articles and case studies taken from American Public Administration literature.

Student Learning Outcome:

1. Discuss the theory of Management as applied to Public Works. 2. Identify the principles and practices Common Public Works Management.

ST MAIN 252 MANAGEMENT IN PUBLIC WORKS II (3) C

Lecture: 3 hour(s)

The course will increase the depth, scope and nature of the principles and practices in the field of public administration that was gained from the introduction to management course. ST MAIN 242. With increased attention given to the Public Works field as well as to practical elements of the current conceptual framework within which American Public Administration is practiced.

Student Learning Outcome:

1. Compare & Contrast the theories of Management as applied to Public Works. 2. Re-State the principles and practices Common to Public Works Management.

SUPERVISION

SUPV 001 ELEMENTS OF SUPERVISION (3) CSU

Lecture: 3 hour(s)

This course covers the theory and principles of supervision, as well as the supervisor's responsibilities for organization, human relations, training, rating, quality-quantity control, and management-employee relations.

Student Learning Outcome:

Student will identify and address key issues in supervision.

SUPV 003 HUMAN RELATIONS (DEVELOPING SUPERVISORY LEADERSHIP) (3)

Lecture: 3 hour(s)

Instruction will focus on those human relation skills the supervisory student needs to be well rounded and thoroughly prepared for a work environment characterized by economic volatility, constant change and a new level of competitiveness. This interpersonal skills approach places greater emphasis on the application of knowledge through practice, followed by feedback and reinforcement.

Student Learning Outcome:

Students will demonstrate an understanding of the impact of human relations from a supervisory and personal perspective in the workplace. Students will be able to describe and apply the major themes in human relations. Students will be able to assess and develop techniques for managing interpersonal relationships in the workplace. Students will understand and implement the elements of Emotional Intelligence and create a plan for continual improvement.

SUPV 004 SUPERVISOR'S RESPONSIBILITY FOR MANAGEMENT OF PERSONNEL (3) CSU

Lecture: 3 hour(s)

This course teaches personnel techniques for the supervisor. Selection, placement, orientation, training, counseling, promotion, evaluation, discipline, grievance handling, and affirmative action are topics included in this course.

Student Learning Outcome:

1. Students will be able to apply supervision principles and skills in a variety of situational settings. 2. Students will be able to identify the skills and examine the roles and responsibilities of a supervisor 3. Students will demonstrate problem solving and appropriate decision-making skills.

SUPV 011 ORAL COMMUNICATIONS (3)

Lecture: 3 hour(s)

This course will focus on the basics of the oral communication process and how it is intertwined with the work of a supervisor. Students will plan, compose, and deliver oral presentations designed to strengthen verbal and nonverbal skills. Finally, the student will be exposed to the basic principles of management and supervision and how successful communication is fundamental to the success of supervisors.

Student Learning Outcome:

Students will use critical thinking skills to gather, identify, analyze synthesize information, and evaluate problems. Students will demonstrate effective communication and comprehension skills.

SUPV 941 COOPERATIVE EDUCATION - SUPERVISION (4) CSU

Lecture: 4 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

SUPPLY WATER TECHNOLOGY

WATER 001 WATER DISTRIBUTION I (3)

Lecture: 3 hour(s)

This course provides instructions to water works design and operation for operators and others involved in the operation and design of water distribution systems. All major components of the distribution system including wells, storage reservoirs, pumps, water mains, valves, meters and fire hydrants are fully discussed.

Student Learning Outcome:

1. Describe the components of the drinking water distribution system and their functions

WATER 002 WATER DISTRIBUTION II (3)

Lecture: 3 hour(s)

This is an advanced course in water distribution systems. Included are special considerations of pipe types and uses, reservoirs, maps, records applied hydraulics as applied to Distribution Systems. Emphasis will be placed on the practical layout, operation and maintenance of a water distribution system. Students are prepared for a Grade 2 Distribution Operation Certification of the AWWA.

Student Learning Outcome:

1. Compare and contrast treatment processes such as blending, iron and manganese removal, and organic chemical treatment

WATER 004 WATER PURIFICATION I (POTABLE WATER) (3)

Lecture: 3 hour(s)

This beginning course in water treatment covers regulations related to water treatment and water quality control, basics of water treatment plant processes and inter-relationship of processes, and introduction to operation and maintenance of water treatment plant. One of the objectives of the course is to prepare students for Grade 1 and Grade 2 Water Treatment Operator Certification by the Department of Public Health (CDPH).

Student Learning Outcome:

1. Identify drinking water regulations related to Surface Water Treatment Rule (SWTR) and Total Coliform Rule (TCR). 2. Discuss the basic design and operation of the Water Treatment Plant (WTP) including coagulation, flocculation, and sedimentation.

WATER 005 WATER PURIFICATION II (POTABLE WATER) (3)

Lecture: 3 hour(s)

This is a more detailed and more in-depth course (compared to the beginning course) in water treatment. This course covers public health, water quality control, elements and functions of the water treatment plant processes. It covers in detail the water treatment plant performance in relation to Surface Water Treatment Rule. Also, covers the operation and maintenance of water treatment plant. One of the objectives of the course is to prepare students for Grades 3 and 4 Water Treatment Operator Certification by the State Department of Public Health (CDPH).

Student Learning Outcome:

Differentiate storage reservoirs and drinking water wells, and their purposes and function. Apply distribution system arithmetic.

WATER 101 INTRODUCTION TO SUPPLY WATER TECHNOLOGY (3)

Lecture: 3 hour(s)

The purpose of this course is to introduce the basics of water supply, sources of water supply, water chemistry, drinking water regulations, water microbiology, water quality control, and some basic arithmetic related to water distribution and water treatment problems.

Student Learning Outcome:

1. Be able to discuss the importance of water, water supply components, the process of developing water projects, and sources of water. 2. Be able to describe basic water chemistry and microbiology of water. 3. Be able to list different contaminants in the different sources of water and explain drinking water regulations. 4. Be able to describe water sampling for examination and coliform bacteria tests. 5. Be able to discuss basic hydraulics. 6. Be able to discuss units used in components of water supply, and basic arithmetic related to water supply.

WATER 102 CALCULATIONS AND MEASUREMENT FOR WATER TECHNOLOGY PROGRAMS (3) C

Lecture: 3 hour(s)

This course covers the basic math skills needed to perform in the supply & waster water fields. Emphasis is placed on the basic operations and how they are applied to the industry. Measurement calculations will be performed in both standard and metric measurements.

Student Learning Outcome:

Students complete national certification test for Introduction to Construction Math

WATER 911 COOPERATIVE EDUCATION - SUPPLY WATER TECHNOLOGY (1) C RPT 3

Lecture: 1 hour

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

WATER 921 COOPERATIVE EDUCATION - SUPPLY WATER TECHNOLOGY (2) C RPT 3

Lecture: 2 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

WATER 931 COOPERATIVE EDUCATION - SUPPLY WATER TECHNOLOGY (3) C RPT 3

Lecture: 3 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

WATER 941 COOPERATIVE EDUCATION - SUPPLY WATER TECHNOLOGY (4)

Lecture: 4 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

TAILORING

TAILRNG 250 TAILORING TECHNIQUES I (2)

Lab: 6 hour(s)
Advisory: Fashion Design 222 or Fashion Design 111;

Training is offered in basic tailoring techniques. Students be instructed in welt pockets, hand tailored stitching, and finishing techniques. This course will consist of a basic and stylized tailored vest.

Student Learning Outcome:

Student will be able to construct a basic tailored vest. Student will be able to construct a stylized vest including; bound buttonholes, collar, lapel, and hand 'pick stitching'.

TAILRNG 251 TAILORING TECHNIQUES II (2)

Lab: 6 hour(s)
Prerequisite: Tailoring 226 or Tailoring 250

Students will receive training on trousers and casual men's style jackets. Instruction will include fly closures, welt pockets, and half linings, and jacket tailoring techniques.

Student Learning Outcome:

Student will be able to construct a pair of men's style pants with fly front, slash pockets, tailored waistband. Students will be able to construct a basic man's style jacket

TAILRNG 252 TAILORING TECHNIQUES III (2)

Lab: 6 hour(s)
Prerequisite: Tailoring 227 or Tailoring 251

Students receive training in tailored coats, men's style shirts. Instruction will include stylized seams, cold weather techniques.

Student Learning Outcome:

Students will be able to construct a basic man's style shirt. Students will be able to construct a basic tailored coat.

TAILRNG 253 TAILORING TECHNIQUES IV (2)

Lab: 6 hour(s)
Prerequisite: Tailoring 228 or Tailoring 252

Students will receive instruction on man's style tailored jacket including inner construction using traditional tailoring techniques.

Student Learning Outcome:

Students will be able to construct a man's style tailored jacket.

TAILRNG 255 MEN'S PATTERN DRAFTING I (2)

Lab: 6 hour(s)

In this course students will learn the fundamentals of taking and using men's measurements for pattern making. Students will draft patterns for basic trousers, men's sport shirts, and a basic man's vest. Each pattern will be tested for fit.

Student Learning Outcome:

Students will draft trousers including fly front and other required elements. Students will draft a shirt to personal or standard measurements incorporating required elements. Students will draft a classic or contemporary lined vest incorporating required elements.

TAILRNG 256 MEN'S PATTERN DRAFTING II (2)

Lab: 6 hour(s)

This course in men's pattern making will introduce students to advanced styling including, jackets, and stylized pants. Students will make complete patterns for each element of a three piece suit.

Student Learning Outcome:

Students will draft a classic or contemporary jacket with easy or close fit incorporation required elements, and will construct a muslin sample.

THEATER

THEATER 100 INTRODUCTION TO THE THEATER (3) UC:CSU

Lecture: 3 hour(s)

This course surveys the history of theater from the ancient Greek to modern times. Stage vocabulary, production crafts and acting techniques are introduced. Students will analyze how theater relates to motion pictures, television, and radio in contemporary American life, as well as compare themes in literature, compare and contrast adaptations of famous plays to their original written form and apply critical analysis to live dramatic productions.

Student Learning Outcome:

1. Students will have knowledge of the various genres of theater as determined by historical period of time. 2. Students develop a critical perspective of what it takes as theater artists to create a play, including the actor, playwright, director and technical personnel. 3. Students will research a play to their interest, make reservations to the play, the proper etiquette for attending the performance and critically evaluate the play in a written essay as their final project.

VISUAL COMMUNICATIONS

VISCOM 100 GRAPHIC DESIGN I (2) CSU

Lecture: 0.5 hour(s); Lab: 4.25 hour(s)

An introduction to the profession of Graphic Design. Projects will stress design basics, typography, the computer as a design tool, the basics of visual problem solving, and art production and advertising.

Student Learning Outcome:

Student Learning Outcome: 1. Students will apply color systems to their graphic design solutions that provide color harmony. 2. Students will be able to utilize typography for the purpose of effective visual communication. 3. Students will create a self-mailer for a current MOCA exhibition. This mailer must incorporate the Principles and Elements of Design.

VISCOM 103 BASIC COMPUTER SYSTEMS (2) CSU

Lecture: 0.5 hour(s); Lab: 4.5 hour(s)

Introduction to the Macintosh computer for graphic design. Students will learn the basics of computer functionality. Emphasis will be placed on a clear understanding of the operations systems and its configuration for use with graphic applications. File management, Apple & Adobe applications.

Student Learning Outcome:

Students will design and create a business card on Macintosh computer using Apple and Adobe applications

VISCOM 105 DIGITAL PREPRESS I (2) CSU

Lecture: 0.5 hour(s); Lab: 4.5 hour(s)

Beginning level course in the preparation of art for the reproduction process, and its application to the industries of Advertising and Graphic Design. Students will study the history of graphic design, typesetting, paste-up to digital prepress (in black and white and two color reproduction) as an emphasized focus within the course.

Student Learning Outcome:

Student will design and print Personal Identity stationery with the use of Adobe Creative Suites.

VISCOM 106 DRAWING I (2) CSU

Lecture: 0.5 hour(s); Lab: 4.25 hour(s)

Students will draw images of 3-D space correctly using Two Point Perspective. Students will draw from life and from photographs for the purpose of creating camera ready illustrations. Students will execute finished line art in various ink techniques.

Student Learning Outcome:

1. Students will draw images of 3D space correctly using Two Point Perspective. 2. Students will draw from life and from photographs for the purpose of creating camera ready illustrations. 3. Students will execute finished line art in various ink techniques

VISCOM 108 2-D DESIGN FUNDAMENTALS (2) CSU

Lecture: 2 hour(s)

A course in the principles and elements of 2D design. Principles of unity, variety, emphasis, balance and proportion guide every mark a designer creates. Elements of line, shape, form, value, color, and texture provide for a control that all visual artists seek as they manipulate their work.

Student Learning Outcome:

1. Apply organization and compose with visual relationships. 2. Create projects that consider the most appropriate use of design principles and elements. 3. Utilize typography and visual elements together in a single document and provide for clear readership and unified compositional layouts.

VISCOM 112 DIGITAL PREPRESS II (2) CSU

Lecture: 0.5 hour(s); Lab: 4.5 hour(s)

Intermediate level course where students design and produce projects that utilize the Macintosh computer and Apple applications. Printing processes, techniques and requirement for digital and offset lithography will be covered.

Student Learning Outcome:

Students will and produce images and material preparing for a printed project. Pantone and process color printing and photography, proofing, separations and package.

VISCOM 114 DIGITAL TYPESETTING (2) CSU

Lecture: 0.5 hour(s); Lab: 4.5 hour(s)

Introduction of the principles of computer typesetting as a career. The course will cover the standards and guidelines used to set type for ads, brochures, and stationary. Proofreading and setting copy in multiple computer programs will be stressed.

Student Learning Outcome:

Students will produce design principles, design techniques, and essential aesthetics that are utilized in a clear and powerful ad.

VISCOM 115 GRAPHIC DESIGN II (2) CSU

Lecture: 0.5 hour(s); Lab: 4.5 hour(s)

Intermediate level course that will stress Graphic Design as a profession. Problems will emphasize the development of creativity, typography as communication, art production and the computer, and methods for developing brochures, ads and web pages.

Student Learning Outcome:

1. Student will organize and present textual information demonstrating gestalt and visual hierarchy of different typestyles for the viewer to navigate and easily access the information he seeks.

VISCOM 116 THREE-DIMENSIONAL PACKAGE DESIGN (2) CSU

Lecture: 0.5 hour(s); Lab: 4.25 hour(s)

Introduction to the development of advertising concepts for magazines, television, and the internet. Use research, brainstorming and standard advertising methodology to plan, design and produce an advertising campaign.

Student Learning Outcome:

1. Students will compare and assess both the editorial and advertising content of a cross section of retail magazines and then prepare a written summary of their findings and write a general description of the magazines™ readership based on those findings. The student will them present this information orally to the class and answer spontaneous questions from the teacher and class members.

VISCOM 118 DIGITAL DRAWING (2) CSU

Lecture: 0.5 hour(s); Lab: 3.75 hour(s)
Advisory: Visual Communications 103;

Basic training in computer illustration using the Adobe software application Illustrator. Toolbox familiarity and manipulation, menu items, and general skill application will constitute the criteria for the course.

Student Learning Outcome:

1. Students will utilize Toolbox Tools and Menus to create and manipulate images and typography 2. Students will save files in multiple formats (AI to PDF) for the purpose of working cross platform Mac to PC) and in different application versions (CS5 to CS6). 3. Students will develop Vector concepts and translate bitmapped images to Vector formats.

VISCOM 119 DIGITAL PAGE LAYOUT (2) CSU

Lecture: 2 hour(s)

A hands on course in the digital page layout application Adobe InDesign. Students will learn to construct page layouts for print, including the specification of typographic fonts, setting type in columns and wrap-arounds, working with spreads and long copy documents, using photographs and illustrations, and the preflight preparation of finished document files for print reproduction.

Student Learning Outcome:

Students will understand typesetting terms. Students will comprehend layout and design of magazine articles in relation to advertising and graphic design.

VISCOM 120 DRAWING II (2) CSU

Lecture: 0.5 hour(s); Lab: 4.5 hour(s)

An advanced drawing course in which indoor and outdoor observational drawing concepts are linked with magazine and book publishing for the creation of cover art and feature article page layouts.

Student Learning Outcome:

Students will be able to draw from observation with correct proportions, value variations in their line applications, and with an overall understanding of composition including positive and negative space.

VISCOM 124 COMPUTER ILLUSTRATION I (2) CSU

Lecture: 0.5 hour(s); Lab: 4.25 hour(s)

An advanced level course in digital picture-making techniques. It combines the Adobe software applications "Illustrator" and "Photoshop" for the creation of digital illustrations that include drawing, photo manipulations, and typography stylizations for advertising and editorial purposes.

Student Learning Outcome:

1. Students will redesign the packaging graphics for a consumer food product, or the #10 brochure for a SoCal theme park. 2. Students will create photography and illustration for container packaging. 3. Students will create digital files for all packaging components.

VISCOM 126 PORTFOLIO DEVELOPMENT I (2) CSU

Lecture: 0.5 hour(s); Lab: 4.25 hour(s)

This is a course in the production of a finished portfolio; all course projects will be reviewed for portfolio consideration. Some projects will require reworking. Preparation of 10 completed works with preliminary developmental books culminates in a simulated job interview with Advisory Board members.

Student Learning Outcome:

1. Students will apply organizational and design systems to a multi-page portfolio book document. 2. Students will create original digital files in Photoshop, Illustrator, InDesign, and other visual digital software applications and format each as PDFs for the purpose of printing. 3. Students will build the first half of a marketable portfolio.

VISCOM 127 DIGITAL PREPRESS III (2) CSU

Lecture: 0.5 hour(s); Lab: 4.25 hour(s)

An advanced course in digital prepress. Students will utilize photographic images, typography, and original artwork to create printing files for advertising and graphic design. Advanced Macintosh based theories will be covered to include Adobe Creative Suites.

Student Learning Outcome:

Students will design and produce a 6 color poster with type and images and prepare for offset printing

VISCOM 128 DESIGNING LOGOS AND TRADEMARKS (2) CSU

Lecture: 0.5 hour(s); Lab: 4.5 hour(s)

Introduction to the principles of trademark design and computer stationary production. Research, marketing, color theory, and corporate identity principles will be stressed. Logos, letterheads, business cards and envelopes will be designed for a variety of clients.

Student Learning Outcome:

1. Manipulate typography for the purpose of creating original letterform constructions. 2. Create small, simple graphic images for incorporation into logos and trademarks. 3. Create original logo designs for a variety of clients and business organizations.

VISCOM 129 DIGITAL PHOTO MANIPULATION (2) CSU

Lecture: 0.5 hour(s); Lab: 4.5 hour(s)

An introductory course that concentrates on the software application Adobe Photoshop. Students will be instructed on how to use this application to create original art and graphics by manipulating scanned photography and other imagery.

Student Learning Outcome:

1. Students will utilize Toolbox Tools to manipulate images and typography. 2. Students will utilize Menus to alter and manipulate color and transformations. 3. Students will utilize default Photoshop Brushes and create and use new brushes.

VISCOM 130 DRAWING III (2) CSU

Lecture: 0.5 hour(s); Lab: 4.25 hour(s)

Students will be able to compose and design a multiple image montage illustration. The incorporation of scale change, strong positive and negative shapes and line variations will provide depth to the illustration content and suggest a strong graphic composition.

Student Learning Outcome:

Students will be able to compose and design a multiple image montage illustration. The incorporation of scale change, strong positive and negative shapes and line variations will provide depth to the illustration content and suggest a strong graphic composition.

VISCOM 131 COMPUTER ILLUSTRATION II (2) CSU

Lecture: 0.5 hour(s); Lab: 4.25 hour(s)

An advanced level course in digital picture-making techniques. It combines the Adobe software applications "Illustrator" and "Photoshop" for the creation of digital illustrations that include drawing, photo manipulations, and typography stylizations for advertising and editorial purposes.

Student Learning Outcome:

1. Students will redesign the packaging graphics for a consumer food product, or the #10 brochure for a SoCal theme park. 2. Students will create photography and illustration for container packaging. 3. Students will create digital files for all packaging components.

VISCOM 132 PORTFOLIO DEVELOPMENT II (2) CSU

Lecture: 0.5 hour(s); Lab: 4.25 hour(s)

An advanced course in the production of a finished portfolio. Preparation of 10 completed works with preliminary developmental books culminates in a simulated job interview with Advisory Board members.

Student Learning Outcome:

1. Students will apply organizational and design systems to a multi-page portfolio book document. 2. Students will create original digital files in Photoshop, Illustrator, InDesign, and other visual digital software applications and format each as PDFs for the purpose of printing. 3. Students will complete the production files of all finished, marketable portfolio book.

VISCOM 133 DIGITAL PORTFOLIO PREPARATION (2) CSU

Lecture: 0.5 hour(s); Lab: 4.5 hour(s)

Plan and produce a digital portfolio of course projects to up-load to the Internet. Write a résumé based on graphic design and advertising standards.

Student Learning Outcome:

Students will produce a Digital portfolio including a resume and reevaluation of past designs. Portfolio will include projects that display acquired design skills from courses.

VISCOM 134 GRAPHIC DESIGN BUSINESS PRACTICES (2) CSU

Lecture: 0.5 hour(s); Lab: 4.5 hour(s)

Introduction to the financial aspects of running a Graphic Design business. Lecture and projects will include billing procedures, business overhead costs, taxes and retirement planning. Taxes, small business legal issues and understanding business ethics are stressed.

Student Learning Outcome:

Students will study, learn, identify and examine the legal and changing world of Graphic art. Studio and alternative careers and strategies are explored and examined. Students will develop, design and create contracts, business models and a campaign that analyzes project costs, supply and art negotiations and bargaining agreements that make a structured and practical business.

VISCOM 135 WEB PAGE GRAPHICS ON THE MACINTOSH (2) CSU

Lecture: 1 hour; Lab: 4 hour(s)

This course will review Adobe Illustrator and Adobe Photoshop procedures, and introduce Adobe Fireworks beginning with the exploration of tools and panels. The semester long project will encompass the designing of a personal website for the artist/student. Emphasis will be placed on page design, site unity, and the use of graphics and images. Students will generate Animated GIFs and engage Fireworks drag and drop environment.

Student Learning Outcome:

Students will design and create a website for portfolio presentation using Adobe Illustrator, Photoshop, and Fireworks.

VISCOM 204 FLASH MOTION GRAPHICS (BEGINNING LEVEL) (2) CSU

Lecture: 1 hour; Lab: 3 hour(s)

This course concentrates on the basic fundamentals of Adobe Flash software it's tools and techniques. Ad banners and animations will be covered through project development throughout the class.

Student Learning Outcome:

Students will create animated movie for web advertisement using Flash Motion Graphics.

WASTEWATER TECHNOLOGY

WASTE 012 WASTEWATER OPERATIONS I (3)

Lecture: 3 hour(s)

This course is a survey and introductory course into wastewater systems for operations and maintenance personnel. Administrative, engineering and laboratory personnel may benefit from this course.

Student Learning Outcome:

1. Be able to discuss the origin, chemical and biological compositions, and treatment methods of wastewater. 2. Be able to describe laboratory analysis of wastewater including the methods, materials, and procedures. 3. Be able to compare and contrast preliminary, primary, chemical, secondary, and tertiary treatments of wastewater. 4. Be able to discuss disinfection and odor control of wastewater. 5. Be able to describe ponds in terms of the origin, chemical and biological compositions, and relations to wastewater. 6. Be able to discuss sludge handling and disposal, and reclamation and reuse of wastewater.

WASTE 013 WASTEWATER OPERATIONS II (3)

Lecture: 3 hour(s)

A comprehensive study is made of preliminary, primary, and secondary treatment systems and operations including selected field studies.

Student Learning Outcome:

1. Be able to describe the origins, composition and characteristics of wastewater. 2. Be able to discuss the technique, analysis, calculations and data evaluation of laboratory examination of wastewater. 3. Be able to compare and contrast preliminary, primary, chemical, and secondary treatments 4. Be able to discuss the theory, history, chlorination, ozonation, and calculations involved in disinfection. 5. Be able to compare and contrast the chemical and biological aspects of odor control.

WASTE 014 WASTEWATER OPERATIONS III (3)

Lecture: 3 hour(s)

This is a comprehensive study of disinfection methods, tertiary treatment, water reclamation, solids treatment, solids and effluent disposal practices.

Student Learning Outcome:

1. The student will be able to convert measurements from US units to metric. 2. Students will diagnose the health of the digester. 3. Students will take the proper steps to correct and remedy a sick digester.

WASTE 015 WASTEWATER OPERATIONS IV (4)

Lecture: 3 hour(s); Lab: 3 hour(s)

This is an introduction into the fundamentals of chemistry and laboratory techniques used to monitor wastewater treatment operations.

Student Learning Outcome:

1. Be able to describe the techniques, location, and times of sampling wastewater. 2. Be able to compare and contrast atoms, molecules, elements, and compounds. 3. Be able to discuss units, conversions, stoichiometric relationships, and problem solving in laboratory measurements and calculations. 4. Be able to discuss nomenclature and purpose of laboratory equipment and material. 5. Be able to describe the laboratory techniques in measuring liquid and weight, and analyzing samples using gravimetric, coulometric, colorimetric, electrometric, and instrumental analysis. 6. Be able to compare and contrast settleable solids, suspended solids, dissolved solids, volatile solids, pH, DO, BOD, and chlorine demand.

WASTE 016 WASTEWATER OPERATIONS V (3)

Lecture: 3 hour(s)

This course is a comprehensive study of the practical application of engineering fundamentals, such as hydraulics, mechanics, electricity and instruments as practiced in wastewater treatment.

Student Learning Outcome:

1. Be able to discuss pressure, buoyancy, force, statics, definitions, terms, units, and basic calculations in elementary hydraulics. 2. Be able to discuss the definitions, fluid friction, head loss, open channel flow, hydraulic equation problem units, and basic calculations in fluid dynamics. 3. Be able to describe symbols, dimensions, sections, views, and units in interpreting plans and specifications. 4. Be able to describe conduits, valves, wet wells storage tanks, and ponds in hydraulic appurtenances. 5. Be able to discuss units, weirs, venturis, other meters, and flow calculations in fluid measurements. 6. Be able to discuss forces, tension, compressions, shear, friction, stress, strain, factor of safety, typiproblems, and mechanical advantage in elementary mechanics. 7. Be able to describe pump, pump characteristics, energy requirements, energy and flow calculations in fluid mechanics. 8. Be able to discuss direct and alternating current, terms, definitions, power, and motors in elementary electricity.

WASTE 017 WASTEWATER OPERATIONS VI (3)

Lecture: 3 hour(s)

Public health, the environment, regulations, management/supervision and report writing as practiced in wastewater and water reclamation plants safety are covered.

Student Learning Outcome:

1. Be able to describe pre-treatment, collection system, public treatment system, and disposal system in a wastewater system. 2. Be able to discuss energy levels for various treatment methods, the costs involved, and social impacts of the effects on energy and natural resources. 3. Be able to describe the different levels of operator certification including the educational and experience requirements. 4. Be able to discuss public relations and professional organizations. 5. Be able to describe oral and written forms of communications, and the importance of record keeping. 6. Be able to discuss the administrative methods, human relations, Cal-OSHA, and labor relations in plant management. 7. Be able to describe how to fill out job applications, what to do in job interviews and discuss personnel practices.

WASTE 018 WATER AND WASTEWATER MATHEMATICS (3)

Lecture: 3 hour(s)

This is a review and practice of basic mathematical concepts required to solve wastewater treatment problems. (Note: this is not a remedial math class).

Student Learning Outcome:

1. Be able to discuss basic mathematics concepts such as fractions, decimals, exponents, percentages, averages, ratios, proportions, unit conversions, areas, volumes graphs, charts, velocity, weights, flow, equations, solving for an unknown, and combination calculations. 2. Be able to discuss preliminary treatment calculations in pumping, horsepower, detention time, velocity, and volume. 3. Be able to describe tank volumes, surface loading rate, weir overflow rate, hydraulic detention time, and removal efficiency in primary treatment. 4. Be able to describe oxidation ponds-trickling filters-activated sludge, detention time, solid loading rate, recirculation ratios, sludge age, air rates, WAS rate, RAS rate, and F to M ratio in secondary treatment. 5. Be able to describe loading rate, gas production, volatile solid reduction, and detention time in solids handling. 6. Be able to discuss Seattle ability, suspended solids, total solids, BOD, DO, SVI, and dosage rate in laboratory and disinfection.

WASTE 921 COOPERATIVE EDUCATION - WASTEWATER TECHNOLOGY (2) C RPT 3

Lecture: 2 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

WASTE 931 COOPERATIVE EDUCATION - WASTEWATER TECHNOLOGY (3) C RPT 3

Lecture: 3 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

WELDING GAS AND ELECTRIC

WELDG/E 100 METAL SCULPTURE I (3)

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)

Expand beginning welding skills and metal working techniques into an exploration of metal sculpture. This course covers hot and cold working of steel. Shielded metal arc welding, oxy-fuel and plasma arc cutting, weld design and finishing techniques. Technical skills will be emphasized through hands on instruction and practice. There will be opportunity for creative expression and practical application.

Student Learning Outcome:

Students will complete metal sculpture using welding processes such as oxy-fuel and SMAW,

WELDG/E 101 FLUX CORED ARC WELDING (6) CSU

Lecture: 1.5 hour(s); Lab: 13.5 hour(s)

This course provides instructions on the principles, equipment, welding techniques, mode of operations, and safety for flux cored arc welding used for structural steel. The course content follows the FCAW competencies published in American Welding Society Guide for the Training of Welding Personnel: Level I-Entry. This course prepares student for the performance portion of the Los Angeles Department of Building and Safety Structural Steel Certified Field Welder Examination.

Student Learning Outcome:

SLO 1: Conduct a safety inspection for Flux Cored Arc Welding Process. SLO 2: Preform minor external repairs on FCAW equipment and accessories. SLO 3: Perform assigned weldments using the FCAW-G and FCAW-S processes to detailed in the American Welding Society Structural Steel D1.1 Section 4.

WELDG/E 102 SEMI-AUTOMATIC WELDING I (GMAW) IN ADVANCED MANUFACTURING (3) NDA RPT 3

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)

This course provides detailed knowledge including welder's performance qualifying skills using the Gas Metal Arc Welding (MIG) process used in the modern manufacturing industry. This course follows the American Welding Society Curriculum Guide for the Training of Welding Personnel: Level I-Entry Welder leading to qualifications outlined in American Welding Society (AWS) D1.1-Structural Steel Welding Code and the American Society of Manufacturing Engineers (ASME) Section IX Code.

Student Learning Outcome:

1. All students will perform a safety inspection while identifying GMAW and equipment components. 2. Upon completion of this course all students will (1) add, subtract, multiply, divide whole numbers, fractions, mixed numbers and decimals, (2) round off decimals to one or more places, (3) use measuring devices to determine size, length, angle or distance, (4) use a calculator to perform basic arithmetic operations, and (5) convert mixed numbers fractions to decimals and vice versa. 3. All students will pass the GMAW-S welder performance qualification test (AWS EDU-3) on carbon steel. 4. All students will pass the GMAW welder performance qualification test (AWS EDU-2) on carbon steel.

WELDG/E 103 OCCUPATIONAL ORIENTATION FOR WELDERS (1) NDA

Lecture: 1 hour

This course provides detailed knowledge including welder's performance qualifying skills using the Flux-Cored Arc Welding process used in the modern manufacturing industry. This course follows the American Welding Society Curriculum Guide for the Training of Welding Personnel: Level I-Entry Welder leading to qualifications outlined in American Welding Society (AWS) D1.1-Structural Steel Welding Code and the American Society of Manufacturing Engineers (ASME) Section IX Code.

Student Learning Outcome:

1. All students will perform a safety inspection while identifying GMAW and FCAW equipment components. 2. Upon completion of this course all students will make metric system measurements, geometric measurements, angular measurements, and bends, stretchouts, economical layout, and takeoffs. 3. All students will pass the FCAW welder performance qualification test (AWS EDU-1) on carbon steel using both FCAW-S and FCAW-G processes.

WELDG/E 104 GAS TUNGSTEN ARC/SHIELDED METAL ARC WELDING (3) NDA

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)

This course provide instruction on welding carbon steel pipe to requirements of the American Society of Manufacturing Engineers Boiler and Pressure Vessel Code- Section 9 Welding and Brazing Qualification using the Gas Tungsten Arc and the Shielded Metal Arc welding processes. The course objective requires proficiency in producing high quality welds on 6 inch diameter schedule 80 pipe in the 6G welding positions.

Student Learning Outcome:

Students will be able to produce a high quality weld on carbon steel 6 inch, schedule 80 pipe using the GTAW process for the root pass, and SMAW process for the fill and cover passes in the 6G welding position. Student will be able to produce a high quality weld on carbon steel 6 inch schedule 80 pipe using the GTAW process in the 5G welding process.

WELDG/E 111 ACETYLENE WELDING, CUTTING AND BRAZING (6) CSU

Lecture: 1.5 hour(s); Lab: 13.5 hour(s)

Basic applications in oxy-acetylene welding, brazing and cutting in flat and vertical positions. Students will perform SMAW on light gauge steel in all positions. Safety procedures and metal welding characteristics.

Student Learning Outcome:

SLO #1 Complete twelve basic weld to AWS standard D 1.3

WELDG/E 112 WELDING RELATED TECHNICAL INSTRUCTIONS I (3)

Lecture: 3 hour(s)

This course will cover the principles of oxy-acetylene welding, brazing and cutting; safety, material selection, equipment assembly, fuels torch adjustments, and movements.

Student Learning Outcome:

Students will describe how to safely light and adjust an oxyacetylene flame

WELDG/E 113 APPLIED MATHEMATICS I (3)

Lecture: 3 hour(s)

This is an entry level course in welding calculations and measurements with special emphasis on the application problems encountered in the welding industry.

Student Learning Outcome:

SLO's 1. Interpret and solve Common Fraction problems. 2. Interpret and solve Decimal Fraction problems. 3. Interpret and solve Percent problems. 4. Interpret and solve Algebraic problems. 5. Interpret and solve Ration & Proportion problems.

WELDG/E 115 STRUCTURAL STEEL AND BOLTING SPECIAL INSPECTION (3)

Lecture: 3 hour(s)

This course provides instructions on obtaining a certification as a Structural Bolting Special Inspector by the International Code Council. This course includes a review of the technical aspects of structural bolting inspection and quality-assurance activities. Topics include: duties and responsibilities, safety practices, materials sampling, testing verification, high-strength bolting, steel framing observation, referencing appropriate building codes and standards structural steel plan reading, and report writing.

Student Learning Outcome:

Upon the completion of this course all students will obtain the skill required to pass the Structural Steel and Bolting Special Inspector license issued by the International code council. Skills include: duties and responsibilities, referencing appropriate building codes and standards, materials identification and sampling, high strength bolting procedures, structural steel plan reading, and report writing.

WELDG/E 120 STRUCTURAL WELDING SPECIAL INSPECTION (3)

Lecture: 3 hour(s)

This course provides instructions on obtaining a certification as a Structural Welding Special Inspector by the International Code Council. This course includes a review of the technical aspects of structural welding inspection and quality-assurance activities. Topics include: duties and responsibilities, safety practices, metal joining and cutting process, weld joint geometry and welding symbols, weld and base metal discontinuities, visual inspection, nondestructive testing referencing appropriate building codes and standards, materials identification and sampling, structural steel plan reading, and report writing.

Student Learning Outcome:

This course includes a review of the technical aspects of structural welding inspection and quality-assurance activities. Topics include: duties and responsibilities, safety practices, metal joining and cutting process, weld joint geometry and welding symbols, weld and base metal discontinuities, visual inspection, nondestructive testing referencing appropriate building codes and standards, materials identification and sampling, high strength bolting procedures, structural steel plan reading, and report writing.

WELDG/E 121 ELECTRIC WELDING I (6) CSU

Lecture: 1.5 hour(s); Lab: 13.5 hour(s)

Students perform basic manipulative exercises in electric welding using low alloy and mild steel materials in all positions, safety precautions, and fire prevention.

Student Learning Outcome:

Students will set up and safely light and adjust oxyacetylene flame.

WELDG/E 124 BLUEPRINT READING I (3) CSU

Lecture: 3 hour(s)

This course covers the principles of reading and interpreting basic industrial blueprints as applied to the welding trade.

Student Learning Outcome:

Outcome: Students will sketch oblique, isometric and pictorial views.

WELDG/E 125 APPLIED MATHEMATICS II (3)

Lecture: 3 hour(s)

Related mathematical problems in welding in project design and construction using the fundamental principles of algebra, right angle trigonometry, and basic geometry.

Student Learning Outcome:

1. Interpret and solve complex common fraction problems. 2. Interpret and solve Complex decimal Fraction problems. 3. Interpret and solve complex percent problems. 4. Interpret and solve complex algebraic problems. 5. Interpret and solve basic trigonometry and geometry problems.

WELDG/E 131 ELECTRIC WELDING II (6) CSU

Lecture: 1.5 hour(s); Lab: 13.5 hour(s)

This course will offer students an opportunity to prepare for certification testing in SMAW. There will be opportunities for improvement through supervised practice and individual coaching in SMAW technique.

Student Learning Outcome:

SLOs: Students will use shielded metal arc welding (SMAW) techniques to weld in vertical position using a 7018 electrode.

WELDG/E 132 BLUEPRINT READING II (3) CSU

Lecture: 3 hour(s)
Prerequisite: Welding 113;

The course covers the principles of lines, view, size, description, print formats, fasteners, and different types of fabrication drawings; review of industrial welding prints.

Student Learning Outcome:

Students will sketch oblique, isometric and pictorial views.

WELDG/E 133 WELDING RELATED TECHNICAL INSTRUCTION III (3)

Lecture: 3 hour(s)

The course places an emphasis on materials, design, assembly procedures, electrodes selection, equipment, welding joints, terminology, welding metallurgy, and preparation for AWS and ASME welding examination.

Student Learning Outcome:

SLO: Identify five types of welding joints and seven common structural steel shapes used in industry.

WELDG/E 141 ELECTRIC WELDING III (6) CSU

Lecture: 1.5 hour(s); Lab: 13.5 hour(s)

Students complete activities in sheet metal welding, cast iron welding, inert gas welding (MIG and TIG) and semi-automatic gas shielded welding.

Student Learning Outcome:

SLO #1 Students will weld a lap joint in flat position on aluminum using GTAW process.

WELDG/E 142 INERT GAS WELDING (TIG & MIG) (3) CSU

Lecture: 3 hour(s)

The course covers principles in welding aluminum, stainless steel, carbon steel and the maintenance and operation of welding equipment.

Student Learning Outcome:

Identify three types of shielding gases used in GMAW and explain the functions of the shielding gasses.

WELDG/E 143 WELDING RELATED TECHNICAL INSTRUCTION IV (3)

Lecture: 3 hour(s)

The course covers the principles and theory of operating semi-automatic gas shielded welding equipment and the metallurgy of metals.

Student Learning Outcome:

Identify three types of shielding gases used in GMAW and explain the functions of the shielding gasses.

WELDG/E 151 INTRODUCTION TO ROBOTIC WELDING AND AUTOMATION (5) CSU

Lecture: 1.5 hour(s); Lab: 9 hour(s)

The course provides fundamental theory and hands-on application of robotic welding and automation. Emphasis is placed on safety awareness, programing techniques, and basic gas metal arc welding applications using a six-axis robotic welding systems.

Student Learning Outcome:

1. At the completion of this course all students will select an electric arc welding process covered in the course and demonstrate a common knowledge of basic operating principles, component identification, equipment setup and performance.

WELDG/E 185 DIRECTED STUDY - WELDING GAS AND ELECTRIC (1)

Lecture: 1 hour

This course allows students to pursue a directed study in welding technology on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in plumbing technology.

WELDG/E 200 METAL SCUPTURE II (3)

Lecture: 1.5 hour(s); Lab: 4.5 hour(s)
Prerequisite: Welding 100

Expand beginning welding skills and metal working techniques into an exploration of metal sculpture. This course covers hot and cold working of steel. Shielded metal arc welding, oxy-fuel and plasma arc cutting, weld design and finishing techniques. Technical skills will be emphasized through hands on instruction and practice. There will be opportunity for creative expression and practical application.

Student Learning Outcome:

Students will complete metal sculpture using welding processes such as oxy-fuel and SMAW, and GTAW.

WELDG/E 201 TUNGSTEN ARC WELDING I IN ADVANCED MANUFACTURING (5) NDA

Lecture: 1.5 hour(s); Lab: 9 hour(s)

This course is designed to provide students with basic performance qualification skills in Gas Tungsten Arc Welding (TIG) needed for employment in the modern manufacturing industry. This course follows AWS standardized curriculum leading to students performance qualifications to the AWS Specifications for Fusion Welding for Aerospace Applications.

Student Learning Outcome:

1. All students will perform a safety inspection while identifying GTAW equipment components. 2. All students will interpret basic elements of a drawing or sketch. 3. All students will pass the welder performance qualification test (Module 3) on carbon steel.

WELDG/E 201A WELDING-GAS AND ELECTRIC IA (1)

Lab: 3 hour(s)

Basic manipulative exercises in electric welding using low alloy and mild steel materials in all positions, safety precautions, and fire prevention.

Student Learning Outcome:

Student will set up and weld an overhead but joint using 6010 rod.

WELDG/E 201B WELDING-GAS AND ELECTRIC IB (1)

Lab: 3 hour(s)

This course will offer students an opportunity to prepare for certification testing in SMAW. There will be opportunities for improvement through supervised practice and individual coaching in SMAW technique.

Student Learning Outcome:

Students use shielded metal arc welding (SMAW) techniques to weld in vertical position using a 7018 electrode.

WELDG/E 202 INTRODUCTION TO ROBOTIC WELDING AND AUTOMATION (5) NDA

Lecture: 1.5 hour(s); Lab: 9 hour(s)

This course is designed to provide students with advanced performance qualification skills in Gas Tungsten Arc Welding (TIG) needed for employment in the modern manufacturing industry. This course follows AWS standardized curriculum leading to students performance qualifications to the AWS Specifications for Fusion Welding for Aerospace Applications.

Student Learning Outcome:

1. All students will interpret advanced elements of a drawing or sketch. 2. All students will pass the GTAW welder performance qualification test (AWS EDU-4) on stainless steel. 3. All students will pass the GTAW welder performance qualification test (AWS EDU-5) on aluminum.

WELDG/E 210 METAL SCULPTING LABORATORY (2)

Lab: 6 hour(s)
Prerequisite: Welding 100

Expand beginning welding skills and metal working techniques into an exploration of metal sculpture.

Student Learning Outcome:

1. All students will be able to produce sound multi-pass fillet welds using both the E6010 and E7018 in all welding positions.

WELDG/E 251 INTRODUCTION TO ROBOTIC WELDING AND AUTOMATION (5) NDA

Lecture: 1.5 hour(s); Lab: 9 hour(s)

This course provides the advance knowledge needed to weld pressure vessels using the Gas Tungsten Arc Welding (TIG) process. This course follows the American Welding Society Curriculum Guide for the Training of Welding Personnel: Level II-Advance Welder, leading to welder's qualifications outlined in the American Society of Manufacturing Engineers (ASME) Section IX Code.

Student Learning Outcome:

1. All students will interpret advanced elements of a drawing or sketch. 2. All student will pass the GTAW Welder's Performance Qualification Test on Pipe in the Fixed 45Â° Position to AWS Standard- Level II-Advance Welder- Workmanship Test, (AWS2-5) and (AWS2-6).

WELDG/E 285 DIRECTED STUDY - WELDING GAS AND ELECTRIC (2)

Lecture: 2 hour(s)

This course allows students to pursue a directed study in welding technology on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in plumbing technology.

WELDG/E 385 DIRECTED STUDY - WELDING GAS AND ELECTRIC (3)

Lecture: 3 hour(s)

This course allows students to pursue a directed study in welding technology on a contract basis under the direction of a supervising instructor.

Student Learning Outcome:

The outcome will vary depending on the contract with the instructor. The student will formulate a research paper based on a topic in plumbing technology.

WELDG/E 941 COOPERATIVE EDUCATION - WELDING GAS AND ELECTRIC (4)

Lecture: 4 hour(s)

Cooperative Education is a work experience program involving the employer, the student-employee and the college to insure that the student receives on the job training and the unit credit for work experience or volunteer work/internship. Completion of at least seven units, including Cooperative Education, at the end of the semester is required. Students must be employed or volunteering/interning in order to participate in program.

Student Learning Outcome:

The student will develop at least three learning objectives to be accomplished on the job. The objectives will be related to the educational/ occupational goals of the student.

Non Credit Courses

BASIC SKILLS

BSICSKL 002CE BASIC ENGLISH SKILLS (0) NDA RPT 9

This course focuses on basic listening, reading, speaking, and writing skills for students with minimum English language skills.

Student Learning Outcome:

Students will be able to:

1. Demonstrate knowledge of introductory grammatical conventions in their writing.

BSICSKL 008CE FOUNDATIONS: CRITICAL THINKING (0) NDA

This course will help foster students' habits of mid and character that are required to develop a generous receptivity to new ideas, from whatever source and a disposition for applying the most rigorous criticism to all ideas and institutions. Critical thinking is central to student success in college, career and in life-long communication and leadership.

Student Learning Outcome:

Student will be able to:

1. Carefully interpret, analyze, and evaluate evidence, statements, graphics, questions, etc.
2. Construct well supported, clearly articulated, and sustain arguments to justify conclusions.
3. Construct clearly defined vision of success in college and career.

BSICSKL 023CE COLLEGE AND SCHOLASTIC ASSESSMENT PREPARATION (0) NDA RPT 9

This course provides students with study, computational, writing, and critical thinking skills to prepare for the college assessment test.

Student Learning Outcome:

Students will be able to:

1. Writing – Students will compose a grammatically correct and coherent written summary and response to assigned material
2. Reading—Students will identify authorial intent, main ideas, and supporting details in various texts read silently and aloud.
3. Students will develop effective study, note-taking, organization, communication, critical thinking, and learning skills that support their success in college and vocation.
4. Calculate whole numbers, fractions, mixed numbers, and decimals through addition, subtraction, multiplication and division functions.
5. Determine and employ the necessary sequence of steps to solve and graph algebraic linear equations.
6. Select and use appropriate units to estimate and calculate measurements of an area and volume of geometric figures.
7. Recognize and interpret math vocabulary and cues to set up and correctly solve math word problems related to whole numbers, fractions, decimals, signed numbers, algebra and geometry.

BSICSKL 035CE BASIC MATH SKILLS (0) NDA RPT 9

This course is designed to strengthen basic math skills. Topics include properties, rounding, estimating, comparing, converting, and computing whole numbers, fractions, and decimals. Upon completion, students should be able to perform basic computations and solve relevant mathematical problems.

Student Learning Outcome:

Students will be able to:

1. Perform basic computations and solve relevant mathematical problems.

BSICSKL 042CE SOFTSKILL BASICS 1B - THE SUCCESSFUL JOB SEARCH (0) NDA RPT 9

This course covers the basic knowledge and skills necessary for gaining employment. Topics include telephone contact of prospective employers, resume writing, employer expectations, and interviewing skills.

Student Learning Outcome:

Students will be able to:

1. Create a portfolio that includes resume, cover letter, and reference sheet

BSICSKL 043CE SOFTSKILL BASICS 1C - PRE-EMPLOYMENT READINESS (0) NDA RPT 9

This course provides an introduction for starting successful employment or a new job. Topics include: making good first impressions, basic workplace expectations, developing good work habits, time management, communication skills, dealing with job-related stress, and techniques for good interpersonal relationships.

Student Learning Outcome:

Students will be able to:

1. List common interview questions and compile effective answers

BSICSKL 045CE MICROSOFT OFFICE APPLICATION BASICS (0) NDA RPT 9

This course provides an introduction to basic functions of Microsoft Office® applications namely Word®, Excel®, Outlook®, and Powerpoint®.

Student Learning Outcome:

Students will be able to:

1. Identify and demonstrate proper use of formatting tools in Microsoft Word, Excel and Powerpoint software programs.

BSICSKL 047CE MICROSOFT WORD BASICS (0) NDA RPT 9

This course provides an introduction to basic functions of Microsoft Word®. Topics include: document management, editing techniques, and formatting text and documents.

Student Learning Outcome:

Students will be able to:

1. Demonstrate how to properly create, save, open and close MS Word documents.
2. Demonstrate proper use of common editing and formatting tools for test, paragraphs and documents including headers and footers.
3. Demonstrate proper creation and formatting of tables and data entry.

BSICSKL 050CE MICROSOFT POWERPOINT BASICS (0) NDA RPT 9

This course provides an introduction to basic functions and features of Microsoft Powerpoint ®. Topics include: PowerPoint ® definitions and terminology; using fonts, colors, graphics, and much more!

Student Learning Outcome:

Students will be able to:

1. Use common MS PowerPoint screen elements and the different views.
2. Create MS Powerpoint presentations using the various templates, designs, layouts and formatting and animation tools.
3. Create notes and outlines and print their desired handouts from their MS PowerPoint presentations.

BSICSKL 051CE INTERNET BASICS (0) NDA RPT 9

This course provides an introduction to basic functions and features of the internet. Topics include internet providers, web browsers, and search engines, navigating the internet, methods for handling worms and viruses, and more.

Student Learning Outcome:

Students will be able to:

1. Demonstrate ability to exchange messages and documents through email.

BSICSKL 054CE SOFTSKILL BASICS 3A - CUSTOMER SERVICE & RELATIONS (0) NDA RPT 9

This course introduces basic customer service and relations skills. Topics include principles of customer service and relations, employee responsibilities in customer relations, communication skills, handling customer complaints, telephone skills, and using new technologies related to customer service.

Student Learning Outcome:

Students will be able to:

1. Demonstrate effective customer service and relations skills.

BSICSKL 055CE SOFTSKILL BASICS 3B - IMAGE, ETIQUETTE, AND INTERPERSONAL COMMUNICATIONS (0) NDA RPT 9

This course covers the interpersonal and professional image skills necessary for succeeding in the workplace. Topics include basic business manners and etiquette, interacting with people or "people skills", how to develop a professional image, problem solving, and handling workplace conflict.

Student Learning Outcome:

Students will be able to:

1. Demonstrate basic business manners and etiquette.
2. List the concepts, attributes and importance of professional self-image.
3. Demonstrate effective communication, interpersonal and listening skills.
4. Demonstrate effective steps and techniques to resolving conflict in the workplace.

BSICSKL 060CE BASIC COMPUTER LITERACY (0) NDA RPT 9

This course introduces basic computer components and functions including computer hardware, software, using the internet, operating systems, and software applications, (e.g. word processing, spreadsheets, email and communications).

Student Learning Outcome:

Students will be able to:

1. Identify and utilize the main parts of the computer, monitor, keyboard, mouse, tower, port, disk drive, printer, etc: install software, and identify and use computer icons.
2. Strengthen skills in text entry, formatting, spell check, and grammar checking; bulleting, numbering and making tables In Microsoft Word and save their documents onto a memory stick.
3. Enter data, formatting, cell alignment, fonts, mathematical calculations and functions and transform data tables into charts and graphs in Microsoft Excel.
4. Create a Powerpoint presentation that demonstrate ability to create slides, apply templates, print handouts, and imbed videos.
5. Effectively use a web-browser and utilize identify and privacy Identify safety measures.
6. Create and demonstrate effective use of an E-mail account in sending messages and attachments.
7. Utilize a social networking site such as Mahara to network and Facebook to establish a professional online presence.
8. Utilize the Student Information System to register/drop classes, check registration priority dates, check class schedules, and download unofficial transcripts.
9. Effectively use search engines to research college and career related topics, assignments, music, and links.

BSICSKL 065CE FINANCIAL LITERACY - CREDIT BASICS (0) NDA RPT 9

This course focuses on the basic skills involved in establishing and maintaining good credit, improving credit scores, managing debt responsibly, and preventing becoming victims of predatory lending as part of preparation to enter or advance in the workforce.

Student Learning Outcome:

Students will be able to:

1. List terms of their debt/credit.
2. Identify ways to reduce their debt.
3. Pull a free credit report.
4. Analyze and correct their credit report.

BSICSKL 066CE FINANCIAL LITERACY - PERSONAL MONEY MANAGEMENT (0) NDA RPT 9

This course covers basic skills involved in managing personal finances and using basic savings and checking products and services offered by regulated financial institutions.

Student Learning Outcome:

Students will be able to:

1. Write out and develop a Spending Plan/Budget.
2. Identify ways to use a budget to manage and save money,
3. Understand the use of credit and debt responsibility as a student.
4. Identify types of student loans, options available to manage repayment of student loans and ways to avoid and prevent student loan default.
5. Complete the financial aid process.

BSICSKL 073CE INDUSTRY OVERVIEW AND CAREER OPPORTUNITIES (0) NDA

This course provides students with the basic information about the targeted industry and sectors they are focused on for their career; including essential facts, key institutions, history, career pathways and trends. This course provides students with the basic research and networking skills to become well-informed job seekers so they can effectively prepare for their career and become employed.

Student Learning Outcome:

Students will be able to:

1. Identify and discuss the structure, key employers and career options and paths within the target industry.

BSICSKL 075CE INTRODUCTION TO POST-SECONDARY EDUCATION (0) NDA RPT 9

This course introduces students to the opportunities and benefits post-secondary education offers them. This course helps dispel many of the myths and reduce information overload that may discourage students and their caregivers from applying to and attending post-secondary education institutions. Students will learn tips and strategies that will help them select and successfully apply to and enroll in post-secondary institutions that best fit their education and career goals and needs.

Student Learning Outcome:

Students will be able to:

1. Express familiarity with the purpose of the various levels of post-secondary education and begin to identify how it relates to their educational and career goals.
2. Navigate the college campus and access various campus resources through the college website, catalog, departments and student service programs.
3. Identify the purpose and difference between the Accuplacer, and the TABE locator tests and determine which test(s) best fit(s) their academic goals and financial needs at the time of orientation.
4. Utilize TABE locator test scores to develop their strategy for strengthening their English and Math basic skills.
5. Develop a higher level of comfort in building relationships and communicating with faculty and staff to become more connected to the college community.

BSICSKL 077CE FUNDAMENTAL FOR WORKPLACE SUCCESS - TEAMWORK (0) NDA

This course will prepare students to successfully collaborate and work effectively with their colleagues and co-workers in diverse settings by strengthening their employability, interpersonal and leadership skills. Students will gain insights about themselves and learn new tools and strategies that optimize their strengths and help them increase their effectiveness and efficiency at work.

Student Learning Outcome:

Students will be able to:

1. Describe the 4 elements of the (O.R.I.D.) critical thinking process, distinguish between fact and interpretation, analyze and evaluate information, and utilize the elements in solving problems or making decisions.

BSICSKL 078CE FUNDAMENTALS FOR WORKPLACE SUCCESS II -EFFECTIVE COMMUNICATION AND LEADERSHIP SKILLS (0) NDA

This course gives students the opportunity to develop their listening, communication and leadership skills appropriate for the workplace in a supportive and interactive environment. Students will be introduced to skills that can help them become active, purposeful listeners and more effective communicators and leaders for career success.

Student Learning Outcome:

Students will be able to:

1. Analyze data using the Inter-Relationship Diagram (IRD) collaborative process tool in organizing, coordinating, and participating in simulated team project management activity.

ENGLISH AS A SECOND LANGUAGE - NONCREDIT

ESL NC 006CE ENGLISH AS A SECOND LANGUAGE - 0 (0) NDA RPT 9

This open entry open exit course emphasizes listening/speaking skills, and reading/writing skills at a literacy level. The focus of the course Is on basic survival English skills, English sound/symbol correspondence, and reading and writing of simple English sentences.

Student Learning Outcome:

Students will be able to:

1. Demonstrate the rules of reading and comprehension of the basic written and spoken English language related to daily life in America.

2. Demonstrate the proper punctuation, mechanics and grammar for the English language related to daily life In America.

ESL NC 007CE ENGLISH AS A SECOND LANGUAGE - (0) NDA RPT 9

This is an open entry, open exit course that emphasizes listening/speaking and reading/writing skills at a beginning-low level. The focus of the course is on understanding and participating in basic communication and conversation skills in routine social situation. Students read simple passages and generate and write sentences related to housing, food, health, transportation, employment, and other resources.

Student Learning Outcome:

Students will be able to:

1. Demonstrate the rules of reading and comprehension of the basic written and spoken English language related to daily life in America.

2. Demonstrate the proper punctuation, mechanics and grammar for the English language related to daily life In America.

ESL NC 008CE ENGLISH AS A SECOND LANGUAGE - (0) NDA RPT 9

This is an open-entry open-exit course, which emphasizes listening/ speaking skills and reading/ writing skills at a high-beginning level. This class focuses on comprehending and engaging in extended conversations related to familiar contexts. Students read simple authentic or adapted narrative and descriptive passages and use basic grammatical structures to write short, clearly organized paragraphs and messages. Student Learning Outcome:

Students will be able to:

1. Demonstrate ability to use listening and speaking skills to engage in basic survival skills in the home, social and work environment.

2. Demonstrate ability to use reading and writing skills to engage in basic survival skills in the home, social and work environment.

ESL NC 010CE VOCATIONAL ENGLISH AS A SECOND LANGUAGE (0) NDA RPT 9

This ESL course is primarily for limited English speaking students who need to learn and enhance their English survival skills necessary for the working world. Instruction will focus on proper grammar and pronunciation, safety, queries, and verbal and written reports.

Student Learning Outcome:

Students will be able to:

1. Demonstrate the rules of reading and comprehension of the basic written and spoken English language related to daily life in America.

2. Demonstrate the proper punctuation, mechanics and grammar for the English language related to daily life In America.

ESL CIVICS

ESLCVCS 010CE ESL AND CIVICS 1 (0) NDA RPT 9

This competency based open entry citizenship course introduces the U.S. history and government with appropriate English vocabulary and structure for ESL students who are preparing to take the U.S. Citizenship examination.

Student Learning Outcome:

Students will be able to:

1. Demonstrate understanding of applicable English vocabulary.

2. Demonstrate knowledge of applicable U.S. history and citizen concepts related to the U.S. Citizenship examination.

9. Glossary of Terms

Academic Probation
After attempting 12 units, a student whose cumulative grade-point average falls below 2.0 is placed on academic probation. A student whose cumulative grade point average falls below 2.0 for three consecutive semesters is subject to dismissal from the College.

Academic Renewal
A student may initiate a petition to have his/her record reviewed for the removal of grade(s) from their permanent record for the purpose of computing the grade-point average. A student must meet specific conditions and may have a maximum of 18 units removed.

Add Permit
A form issued by an instructor which permits the student to add the class if the instructor determines that there is room. Enrollment in the class is official only if the add permit is processed by the office of Admissions and Records.

Advisory
An advisory is condition of enrollment that a student is advised (but not required) to meet before, or in conjunction with, enrollment in a course.

Appeal
A student request for reconsideration of a decision made affecting disciplinary action, grade change, prerequisite challenge, etc.

Application for Admission
A form provided by the office of Admissions and Records on which the student enters identifying data and requests admittance for a specific semester.

Articulation Agreement
An agreement with another institution that certifies that courses will be accepted for credit upon transfer.

ASSIST
An online student-transfer information system that shows how course credits earned at one public California college or university can be applied when transferred to another. ASSIST is the official repository of articulation for California's public colleges and universities and provides the most accurate and up-to-date information about student transfer in California (assist.org).

Assessment
Assessment is the process the college uses to evaluate student skills in areas such as Reading, English and English as a Second Language (ESL), and Mathematics.

ASO (Associated Student Organization)
An organization which all enrolled students are eligible to join.

Associate Degree
A degree (Associate in Arts, A.A., or Associate in Science, A.S). granted by a community college which recognizes a student's satisfactory completion of an organized program of study consisting of a minimum of 60 degree applicable semester units.

Audit
A student's attendance in a class with permission of the instructor and payment of a fee. No college credit nor grade is given.

CalWORKS Program
CalWORKs (California Work Opportunity and Responsibility to Kids) program offers training and support services to students receiving TANF (Temporary Assistance to Needy Families), previously AFDC.

Catalog Rights
Catalog rights refer to the right of every continuing student to choose one, and only one, catalog under whose course requirements the student is to be evaluated for the purpose of determining whether the student meets the requirements for graduation or for certification to transfer to UC or CSU. The continuing student may select the catalog which was in effect when the student initially enrolled at LATTC, or the catalog in effect when the student petitions for graduation or transfer certification.

Certificate of Achievement
Programs designed for students who are looking for instruction with a high degree of specialization. Certificates of Achievement vary in length and may require less than two years of full-time study, and may be pursued on a part-time basis. At the point of completion, students may request the issuance of a Certificate of Achievement.

Certificate of Completion
A document confirming that a student has completed a program or sequence of noncredit courses that prepares him or her to progress in a career path or to undertake degree-applicable or nondegree-applicable credit courses.

Certification of CSU General Education Requirements
Completion of a body of transfer courses which meet the general education requirements of the California State University system (CSU).

Concurrent Enrollment
A student may enroll in two mutually dependent courses within the same semester and/or may be simultaneously enrolled at both LATTC and a K-12 or another college.

Continuing Student
A student who maintains continuous attendance which is defined as no more than one semester absence within a school year, excluding Summer Sessions and Winter Intersessions.

Cooperative Education
An instructional program that is designed to complement the student's academic training with on-the-job experiences.

Corequisite
A condition of enrollment consisting of what course a student is required to simultaneously take in order to enroll in another course.

Counseling
Guidance provided by professional counselors in academic, vocational, and personal matters.

Course
A subject of study identified by Title and Number; for example: Art 101.

Credit by Examination
Credit granted for proficiency accomplished through testing.

Dismissal
A student on academic or progress probation for three semesters may be dismissed from the College. Once dismissed, the student may not attend any college within the Los Angeles Community College District for a period of one year and must petition for re-admittance at the end of that period of time.

Drop
A student's official withdrawal from a class.

Elective
Courses recommended for a given major in addition to prescribed requirements.

Full-Time Student
A student enrolled and active in 12 or more units during the Fall or Spring Semester.

General Education Requirements
A group of courses from several subject areas which are required for graduation by state law.

Grade Point
The numerical value of a college letter grade. A=4, B=3, C=2, D=1, F=0, times the number of units of the course: An "A" in a 5 unit course equals 20 points.

Grade-Point Average (GPA)
The GPA is determined by dividing the total grade point earned by the number of attempted units.

IGETC (Intersegmental General Education Transfer Curriculum)
Completion of all the requirements in the Intersegmental General Education Transfer Curriculum (IGETC) will permit a student to transfer from a community college to a campus in either the California State University or the University of California system.

INC (Incomplete)
The administrative symbol "INC" is recorded on the student's permanent record in special situations in which the student has not been able to complete a course due to circumstances beyond the student's control.

IP (In Progress)
A symbol which indicates a course which continues over parts or all of two semesters.

Lower Division
College courses at the freshman and sophomore levels.

Major (Program of Study)
A concentration of study in a specified discipline.

MW (Military Withdrawal)
This occurs when a student who is a member of an active or reserve United States military service receives orders compelling a withdrawal from courses. Upon verification of such orders, a withdrawal symbol may be assigned at any time after the last day of the fourteenth week of instruction or 75% of the time the class is scheduled to meet, whichever is less.

NDA (Non-Degree Applicable)
Credit courses that do not apply toward a degree and are not transferable.

Non-Penalty Drop Period
The first two weeks of a regular Fall or Spring semester during which a student's enrollment in a class is not recorded on the student's permanent record if the student drops by the deadline. This deadline will be different for short term and summer session courses.

Pass/No-Pass
A form of grading whereby a student receives a grade of Pass (P) or No Pass (NP) instead of an A, B, C, D, or F. A grade of "P" is assigned for class work equivalent to a "C" or above. "NP" denotes work below a grade of "C."

Prerequisite
A condition of enrollment that a student is required to meet in order to demonstrate current readiness for enrollment in a course or educational program.

Progress Probation
A student will be placed on progress probation if, after enrolling in 12 units, the total number of units for which a W, NP or INC has been assigned equals 50 percent or more of the units enrolled.

RD (Report Delayed)
This temporary administrative symbol is recorded on the student's permanent record when a course grade has not been received from the instructor. It is changed to a letter grade when the grade report is received.

Returning Student
A previously enrolled student who did not attend the College during the previous two semesters. Attendance during the summer session is not included in this determination.

Satisfactory Completion
Completion of a course with a grade of "C" or better.

Schedule of Classes
A schedule giving directions for enrollment and detailed information about the times, locations, and instructors of the classes to be offered. It is issued before the beginning of each semester and summer session.

Section Number
A four-digit class identification number which appears in the first column in the class schedule before the time of day or evening the class meets.

Semester
One-half of the academic year, usually 16 weeks.

Substandard Grade
An earned grade of "D" or "F".

Transcripts
A student's permanent record and an official list of all courses taken at a college or university showing the final grade received for each course.

Transfer
A student may change from one collegiate institution to another after having met the requirements for admission to the second institution.

Transfer Courses
Courses designed to match lower-division courses of a four-year institution and for which credit may be transferred to that institution.

Transferable Units
College units earned through satisfactory completion of courses acceptable for credit at a four-year college or university (e.g. UC – University of California, CSU – California State University)

Units
The amount of college credit earned by satisfactory completion of a specific course taken for one semester. Each unit represents one hour per week of lecture or recitation, or a longer time in laboratory or other exercises not requiring outside preparation.

Units Attempted
Total number of units in courses for which a student was ever actively enrolled.

Units Completed
Total number of units in courses for which a student received a grade of A, B, C, D, or P.

Units Enrolled
Total number of units in which the student is enrolled at the end of the non-penalty drop period, which is the total number of units for all courses appearing on the student's transcripts.

W
An administrative symbol assigned to a student's permanent record for all classes which a student has dropped or has been excluded from by the instructor after the end of the non-penalty drop date, but by the last day to drop.

Withdrawal
The action a student takes in dropping all classes during any one semester and discontinuing coursework at the College.

10. Directory

FROM OFF CAMPUS: Dial (213) 763-xxxx (see listed phone number)

Information & Services

ACTIVITIES	PHONE NO.	ROOM
A		
Academic Connections	763-3754	MA-109
• Learning Skills Computer Lab		
• Basic Skills		
• Tutoring		
• Non-credit/ESL		
• G.E.D. Exam Preparation		
• Computer Applications Office Technology		
Academic Senate	763-7167	MH-304
Admissions & Records	763-5300	JH-Lobby
• Academic Renewal	763-5320	JH-Lobby
• Adding/Dropping a Class	763-5300	JH-Lobby
• Applying for Admissions	763-5300	JH-Lobby
• Academic, Administrative & Grade Change Petition	763-5312	JH-Lobby
• CCCApply (on-line application)		
A – C	763-5314 or 5317	
D – E	763-5318	
F – G	763-5314	
H – J	763-5311	
K – L	763-5304	
M – N	763-5313	
O – Q	763-5307	
R – S	763-5313	
T – V	763-5309	
W – Z	763-5303	
• Credit by Exam	763-5320	JH-Lobby
• General Petitions	763-5314 or 5317	JH-Lobby
A – L	763-5314	JH-Lobby
M – Z	763-5317	JH-Lobby
• Graduation Application	763-5306	JH-Lobby
A – E	763-5308	JH-Lobby
F – K	763-5320	JH-Lobby
L – R	763-5302	JH-Lobby
S – Z	763-5322	JH-Lobby
• Registration Questions	763-5300	JH-Lobby
• Residency Questions	763-5300	JH-Lobby
• Transcript Request	763-5318	JH-Lobby
A – I	763-5318	JH-Lobby
J – Q	763-5303	JH-Lobby
R – Z	763-5304	JH-Lobby
• Verification of Enrollment	763-5307	In Person
• Withdraw from College	763-5300	JH-Lobby
Allied Health/Health Occupation	763-7170	MH-165
Assessment	763-5339	MA-001
Associated Student Organization (ASO)	763-7200	RH-105
Athletics	763-3726	WH-200
B		
Bookstore	763-7210	CH-102
• Books, Supplies, Sundry items		
Bridges to Success Center	763-5560	MA-105
• Student I.D. Cards		
• Orientation/Campus Information		
• General Information & Student Navigation		
• Student Enrollment Assistance		
• Application Workshops & Assistance		
• K-12 - Concurrent Enrollment		
• Online Fee/Parking Permit		
• Enrollment/Fee Receipt		
• LATTC Picture ID cards		
• GED Program		
• Student Internships & Volunteer Opportunities		
• Community & High School Relations		
• Outreach & Recruitment		
• Partnerships		
• Community Resource Programs		
• VITA (Volunteer Income Tax Assistance) Site		
• Covered CA - Healthcare Reform Education		
Business Office	763-7225	JH-109
• Accounts Payable	763-7236	JH-109
• Check Distribution	763-7225	JH-109
• Fees Payment and Refund	763-7225	JH-109
• Student Parking Permits	763-7225	JH-109
C		
Cafeteria	763-7331	SA Bldg
CalWORKs/GAIN	763-7109	JH-403
Career Center	763-7104	JH-415
Child Development Center	763-3690	Olive & 21st
College Sheriff	763-3600	CY-150
• Emergencies	763-3611	CY-150
• Locating a Student (emergency)	763-3611	CY-150

Information & Services

ACTIVITIES	PHONE NO.	ROOM
• Lost & Found	763-3600	CY-150
• Parking Enforcement	763-3600	CY-150
Compliance Office	763-7040	JH-523
Continuing Education/Noncredit	763-5560	MA-109
Counseling	763-7354	JH-416

D—F

Disabled Student Programs & Services	763-3773	MA-100
EOPS Programs	763-7097 or 7117	JH-205
Financial Aid Lab	763-7082	JH-314
• FAFSA Application		
• Loan Application		
• Activate Debit Card		
• Check status of financial aid and disbursements		
Financial Aid Office	763-7082	JH-214
• Federal and State Grants		
• Federal Loans		
• Federal Work-Study		
• Fee Waiver Grants		
• Scholarships		

G—I

GAIN/CalWORKs	763-7109	JH-403
Garden Room Restaurant	763-7331	SA-108
Health/Kinesiology (formerly Physical Education)	763-3726	WH-200
International Students	763-5345	JH-316

L—P

Labor Studies	763-7129	MA-005
Learning Skills Center, *see Academic Connections*		
Library	763-3950	MA-104/200 (upstairs)
• Circulation	763-3950	
• Reference Desk	763-3958	
• Open Computer Lab	763-3958	

ACTIVITIES	PHONE NO.	ROOM
Assessment Center	763-5348	MA-001
• Assessment	763-5339	MA-001
• Orientation	763-5336	MA-105
• Prerequisite Clearance	763-5339	MA-001
• Challenge Process	763-5339	MA-001
Open Computer Lab	763-7208	MA104/200 (upstairs)
PUENTE Project	763-3771	JH-413

R—S

Student Relations/Recruitment/Outreach	763-5560	MA-105
Student Activities	763-7200	RH-105
• Awards/Honors		
• Campus Clubs		
• Notices (Posting on Campus)		
• Student Government		
Student Employment Center	763-7124	JH-403
• Job Placement	763-7124	JH-403
Student Grievance	763-7066	JH-523
Student Health Center	763-3764	MA-107A
• Accidents	763-3764	MA-107A
• Health Services	763-3764	MA-107A
Student ID Card	763-5560	MA-105

T—W

Tutoring Center	763-3738	MA-109
University Transfer Center	763-7154	JH-203
Veterans Student Center	763-5305 or 5572	MA-101

College Administration

NAME	PHONE NO.	ROOM
Dr. Laurence B. Frank, President	**763-7052**	**JH-542**
David Ysais, Manager, Public Relations	763-7063	JH-533

ACADEMIC AFFAIRS & WORKFORCE DEVELOPMENT (WED)

Leticia Barajas, Vice President, Academic Affairs & Workforce Development	**763-7071**	**JH-519**
Nicole Albo-Lopez, Dean, Academic Affairs & WED	763-7025	TE-519
Michelle Cheang, Dean, Academic Affairs & WED	763-5533	JH-519
Joseph Guerrieri, Dean, Academic Affairs & WED Workforce Development	763-3683	JH-519
Benjamin Goldstein, Dean, Academic Affairs & WED	763-7051	JH-519
Vincent Jackson, Dean, Academic Affairs WED	763-7035	JH-519
Cynthia Morley-Mower, Dean, Academic Affairs & WED	763-7074	JH-519

ADMINISTRATION

Dr. Mary Gallagher, Vice President, Administration	**763-7042**	**JH-534**
Sang Baik, Manager, College Information System	763-7007	MA-007
Vacant, Associate Vice President, Administrative Services	763-7040	JH-532
Scott McIntyre, Facilities Manager	763-3612	CY-152

INSTITUTIONAL EFFECTIVENESS

Dr. Anna Badalyan, Dean, Institutional Effectiveness	763-7064	JH-305

STUDENT SERVICES

Dr. Kaneesha Tarrant, Vice President, Student Services	**763-7078**	**JH-512**
Dr. Luis Dorado Dean, Student Services	763-7207	JH-230
Dorothy Smith, Dean, Student Services	763-5507	JH-320
Dr. Henan Joof, Dean, Student Services	763-7127	MA-105/6

Department Heads

NAME	PHONE NO.	ROOM
ACADEMIC CONNECTIONS Christina Anketell	763-3741	MA-109e
ADMISSIONS & RECORDS Dr. Henan Joof	763-7127	MA-105
ADVANCED TRANSPORTATION AND MANUFACTURING Jesus "Jess" Guerra	763-3900	F-212e
APPRENTICESHIP William D. Elarton	763-7151	SQ-122
ATHLETICS Dimitri Lagos	763-3728	WH-200
BEHAVIORAL/SOCIAL SCIENCES/CHILD DEVELOPMENT Dr. Freddie McClain	763-3936	AH-516
BRIDGES TO SUCCESS Dr. Henan Joof	763-7127	MA-105 & 106
BUSINESS OFFICE Vacant	763-7043	JH-532
CHILD DEVELOPMENT CENTER LaTanya Hardy	763-3690	Olive & 21st
COLLEGE SHERIFF Sergeant Diane Dodd	763-3600	CY-150
COMPLIANCE Vincent Jackson	763-7035	JH-519
CONSTRUCTION, MAINTENANCE & UTILITIES William D. Elarton	763-3701	SQ-122
COSMETOLOGY Elton Robinson	763-7138	MH-241E
COUNSELING Thomas Dawkins	763-7361	JH-418
CULINARY ARTS Steven Lee Kasmar	763-7332	SA-118
DESIGN & MEDIA ARTS Carole Anderson	763-3640	CY-222
DISABLED STUDENT PROGRAMS & SERVICES Dr. Luis Dorado	763-3778	MA-100
ENGLISH/ESL Janice Gangel-Vasquez	763-5516	AH-515
EOPS/CARE Angeles Abraham	763-7117	JH-217
FINANCIAL AID OFFICE Ludwig Perez	763-7082	JH-224
GAIN/CALWORKS/CAREER CENTER Linda Cole	763-7109/7104	JH-403/RH-107A
HEALTH AND EXERCISE SCIENCES Joseph Ratcliff	763-3730	WH-200
LABOR CENTER John McDowell	763-7129	MA-005
LANGUAGE ARTS/HUMANITIES/COMMUNICATION STUDIES (FORMERLY SPEECH) Dr. John Glavan	763-3931	AH-518
LIBRARY Judith Samuel	763-3959	MA-205B
MATH Tayebeh Meftagh	763-7319	AH-506
PHYSICAL PLANT William Smith	763-3612	CY-152
PUENTE Ashraf Hosseini	763-3771	JH-413
SCIENCES Dr. Miguel Moreno	763-7322	CH-405
UNIVERSITY TRANSFER CENTER David Esparza	763-7154	JH-203

Faculty

ACADEMIC CONNECTIONS

Academic Connections

NAME	PHONE NO.	ROOM
Academic Connections	3738	MA-109
Anketell, Christina	3741	MA-109E
Bailey, Paulette	7258	CH- 306
Cole, Valerie	3742	MA-109
Galindo, Maryanne	5554	MA-109
Haymon, Sharon	7252	CH- 226
Kapaku, Okima	7252	CH- 226
Lindsay, Michael	7252	CH- 226
Nwoko, John	3749	MA-109
Ozuah, Basil	7252	CH- 226
Palacios, Valda	7252	CH- 226
Tom-Miura, Dr. Allison	3759	MA-109
Viramontes, Max	7256	CH- 208a
Yonge, Wanda	7252	CH- 226

ADVANCED TRANSPORTATION AND MANUFACTURING TECHNOLOGIES

Transportation	3900	OH-126a
Guerra, Jesus "Jess"	3919	F-212e
Cantillano, Jordan	3922	OH-100c
Castaneda, Jose	3911	OH-102
Gallagher, Tom	3911	F-102
Scherb, Eva	3902	OH-114
Encinas, Dan	3939	OH-132
Goyn, Bruce	3900	OH-114
Grissett, Robert	3900	OH-114
Guerra, Ricardo	3900	OH-114
McFall, Thomas	3917	OH-122
Ramirez, Jose L.	3914	OH-116
Serrato, Rudy	3901	OH-114
Spear, George	3907	OH-104
Uribe, John	3910	OH-108a
Venegas, Rafael	3909	OH-114
Williams, Terry	3906	OH-102
Woo, William	3920	OH-128

Collision Repair

Ferre, Brian	3912	OH-110g
Morago, Fred	3916	OH-120b
Muradian, Sarkis	3916	OH-120b

Diesel and Related Technology

Cavanaugh, John	3905	OH-100a
Perez, George	3905	OH-100a
Ramirez, Jose L.	3960	OH-100c
Rojas, Carlos	3921	OH-118

Electronics Technology

Electronics, Technology	3782	CH- 325
Chavez, Eric	3789	CH- 325
Roosta, Soroya	3971	CH- 366a
Semadeni, Albert	3904	OH-114

Machine Shop

Rauterkus, Peter	3941	OH-166b
Shibuya, Steven	3946	OH-164j

Motorcycle Repair

Price, Robert	3918	OH-124a

Welding

Chancy, Che	3949	F-204d

ALLIED HEALTH

Allied Health &, Health Occupations	7170	MH-165
Villora, Dr. Rosalie	7180	MH-165
Wickman, Yvette	7185	MH-165
Ashby, Cynthia	7178	MH-208
Battams, Brian	7172	MH-153
Brown, Dr. Stephen	7184	MH-208
Chandler, Dr. Christine	7194	MH-208
Davis-Kendrick, Maggie	7181	MH-208
Jacobs, Loreto	7177	MH-208
Jenkinson, Deborah	7176	MH-208
Johnson, Paula	7175	MH-208
Rodrigues, Angel	7186	MH-165
Soles, Barbara	7193	MH-208
Washington, Carolyn	7174	MH-208

BEHAVIORAL, SOCIAL SCIENCES & CHILD DEVELOPMENT

McClain, Dr. Freddie	3936	AH-516
Van Wagner, Vanessa	5513	AH-516

Administration of Justice

Main Office	5513	AH-516

Anthropology

Huld, Philip	5504	AH-520r

Child Development

Babb, Dr. Jing	3954	CH- 203g
Maina, Dr. Gathoni	3953	CH- 203h
Vega, Cecilia	3986	CH- 203g

Economics

Ahmad, Jamil	7257	CH- 260

Education

Randall, Dr. Ayesha	3739	AH-520Q

History

Bird, Bethany	3633	AH-520
Rodriquez-Estrada, Alicia	3938	AH-520
Robinson, Thurman	3932	AH-520V

Faculty

NAME	PHONE NO.	ROOM
Paralegal		
Gary, Esq., Karl	7255	CH- 264
Political Science		
Main Office	5513	AH-516
Psychology		
Bentley, Mara	5514	AH-520R
Koritzke, Leslee	5505	AH-520U
Sociology		
McClain, Dr. Freddie	3936	AH-520X

BUSINESS AND ENTREPRENEURIAL RELATED PROGRAMS

Brumell, Bertis	7252	CH- 226
Emerson, Victoria	7252	CH- 226
Endman, James	7252	CH- 226
Gonzalez, Raymond	7259	CH- 226
Johnson, Ed	7252	CH- 226
Johnson, Robert	7252	CH- 226
McIntosh, Artina	7266	CH- 209
Scudder, Stuart	7252	CH- 226
Sonnier, Greta	7259	CH- 266
Taylor, Pamela	7252	CH- 226
Toure, Yolanda	7252	CH- 226
Wilson-Aus, Aileen	7267	CH- 209

CONSTRUCTION, MAINTENANCE & UTILITIES

Construction Design, & Mtg.	3700	SQ- 122
Elarton, William	3701	SQ- 122
Walters, Yvonne	3700	SQ- 122
Architecture		
Oliva, Marcela	3676	CY- 330b
Carpentry		
Dunn, Roger	3704	SQ- 104a
Hanley, Wallace	3705	SQ-104
Hubbard, Larry	3709	SQ- 134b
Olszewski, John	3703	SQ- 122
Electrical		
Burke, Dennis	3740	SQ- 337c
Goluza, Brano	3700	SQ- 122
Jackson, Ronald	3723	SQ- 337a
Lester, John	3721	SQ- 330a
Nieves, Thomas	3722	SQ- 304b
Pogoler, Lawrence	3720	SQ- 304a
Robinson, David	3718	SQ- 301a
Rogers, Merle	3724	SQ- 351a
Uchida, Hiroshi	3719	SQ- 304a

NAME	PHONE NO.	ROOM
Plumbing		
Galvan, Willie	3711	SQ- 200a
Jones, Larry	3717	SQ- 200c
Refrigeration & Air Conditioning		
Barnett, Craig	3712	SQ- 237c
Cioffi, Gabriel	3714	SQ- 238a
Dozier, Kelly	3715	SQ- 221c
Needham, Matthew	3743	SQ- 204a
Solid Waste Management		
Blount, Paul	7295	CH- 405
Supply Water		
Amir-Teymoori, Abbas	7295	CH- 405
Wastewater		
Abd El Aal, Mohamed	7295	CH- 405
Abkian, Varouj	7295	CH- 405
Welding		
Legohn, Lisa	3942	F-150B

COSMETOLOGY

Robinson, Elton	7138	MH-241
McClendon, Jamille	7133	MH-241
Aguilar, David	7133	MH-241
Chen, Lina	7136	MH-241
Ley, Lidia	7147	MH-241
Lopez, Rosa	7145	MH-241
Meyers, Alannah	7133	MH-241
Monge, Jacqueline	7133	MH-241
Nunley, Roslyn	7133	MH-241
Shackelford, Sondra	7140	MH-241
Smith, Felicia	7133	MH-241
Williams, Shirley	7133	MH-241
Young, Carolyn	7133	MH-241

CULINARY ARTS

Culinary, Arts	7331	SA- 118
Kasmar, Steven	7332	SA- 118
Cole, Pamela	7333	SA- 117
Blanchard, Leroy	7342	SA- 108
Feigenbaum, Susan	7341	SA- 108
Kanemaki, James	7331	SA- 118
Lisanti, Jim	7343	SA- 108
Robles, Luis	7344	SA - 106
Sims, Eddie	7346	SA- 131
Spence, Roselyn	7331	SA- 108
Vachon, Jerry	7331	SA- 108
Professional Baking		
Damaso, Stacy	7335	SA- 106
Thompson, Deborah	7351	SA- 315
Wemischner, Robert	7352	SA- 315

Faculty

DESIGN & MEDIA ART

NAME	PHONE NO.	ROOM
Fashion, Center	3640	CY- 222
Anderson, Carole	3642	CY- 222
Fernando, Tessie	3640	CY- 222

Computer Information Systems

Crunkleton, Joseph	7252	CH- 226
Hahne, Louis	7254	CH- 309b
Pakbaz, Matt	7268	CH- 309a
Proctor, Ernest	7252	CH- 226
Tee, Vincent	7252	CH- 226

Digital Media

Reed, Patrick W	3640	CY- 222

Fashion Design

Adams, Ludmila	3640	CY- 222
Alcala, Carlos	3640	CY- 222
Brooks, Marva	3640	CY- 222
Coreas, Madeline	3643	CY- 230a
Cunnigan, Dixie	3640	CY- 222
Drebskaya, Finna	3650	CY- 130a
Foral, Dorothy	3640	CY- 222
Glass-Villalobos, Nurit	3657	CY- 105b
Jackson, Tiffany	3661	CY- 332b
Johnson, Deborah	3640	CY- 222
Kim, Hyein	3644	CY- 106A
Lee, Aileen	3658	CY- 102A
Lobato, Donna	7164	CY-331
Melin, Linda	3640	CY- 222
Sapos, Carol	3651	CY- 133b
Stafford, William	3640	CY- 222
Thornton, Delia	3648	CY- 106b
Torda, Benito	3640	CY- 222
Walker, Thomas "TJ"	3640	CY-203
Watanabe, Ruth	3645	CY- 105a

Fashion Merchandising

Murphy, Diane	3654	CY- 203a

Tailoring

Iapaolo, Nino	3640	CY- 222

Sign Graphics

Aguilar, Carlos	7367	SA-204
Guthrie, Ralph	7367	SA- 204
Johnson, Bert	7367	SA- 204

Visual Communications

Evans, George	7372	SA-208
Hubbard, Roger	7363	SA-208
Millar, Norman	7363	SA-208
Morris, Fred	7363	SA-208
Robles, William	7363	SA-208
Rodriguez, Caesar	7363	SA-208

ENGLISH/ESL

NAME	PHONE NO.	ROOM
Gangel-Vasquez, Janice	5516	AH- 515
Ahmed, Ahmed	3923	AH- 520
Blake, George	3923	AH- 520
Daniels, Jeff	3923	AH- 520
Dolan, Theresa	5502	AH- 520I
Doss, Howaida	3923	AH- 520
Gonzalez, Dr. Michael	7288	AH- 520D
Gregrory, Eric	3923	AH- 520
Jacobs, Brian	3923	AH- 520
Kinyon, Kindra	3738	AH- 520K
Mancia, Roberto	3770	AH- 520J
Mendez, Armando	5518	AH- 520L
Mitchell, Sharis	3923	AH- 520
Moreno, Lisa	5506	AH- 520H
Shakir-Blackshere, Rashidah	3930	AH- 520F
Viliesid, Carmen	5524	AH-520G
Villani, Frank	3923	AH- 520

HEALTH/ KINESIOLOGY (Formerly Physical Education)/ ATHLETICS

Health/Kinesiology (formerly Physical Education)	3726	WH 200
Ratcliff, Joseph	3730	WH 202a
Hale, Tracy	3727	WH 203
Browne, James	3726	WH 204
Budinger, John	3726	CH Basement
Delzeit, Linda	3733	CH 203d
Lagos, Dimitri	3728	WH 202
Orozco, Oscar	3734	LG 104
Athletics	3726	WH 200
Sullivan, Dr. Sally	3731	OH 212g
Vallejo, Wendy	3735	WH 103
Wagenbach, Michael	3729	WH 207
Wells, Richard	3737	WH 201

LABOR CENTER

Labor Center	7129	MA-005
McDowell, John	7129	MA-005
De La Torre, Vivien	7129	MA-005
Garcia, Olga	7129	MA-005
Siegel, Lou	7129	MA-005
Yasuda, Kathleen	7160	MA-005
Community Planning &, Econ. Dev.	3757	CH- 203E

Faculty

LANGUAGE ARTS / HUMANITIES/ COMMUNICATION STUDIES (formerly Speech)

Art

NAME	PHONE NO.	ROOM
Herbert, Pamela	3937	MH 304

Communication Studies (formerly Speech)

NAME	PHONE NO.	ROOM
Borne, Alvin	3923	OH- 225
Glavan, Dr. John	3931	AH-520C
McDermoff, Deirdre	3926	AH-520A
McNamara, Catherine	3923	OH- 225
Mock, Jearold	5517	AH-520B

French

NAME	PHONE NO.	ROOM
Tamer, Norma	3923	OH- 225

Humanities

NAME	PHONE NO.	ROOM
Parker-Lopez, Carolie	7285	OH- 225
Tropf, Ralph	3923	OH- 225

Music

NAME	PHONE NO.	ROOM
Carter, Terry	5560	OH- 229
Ray, Eric	3923	OH- 229
Wachs, Michael	3668	OH- 229

Philosophy

NAME	PHONE NO.	ROOM
Egan, Richard	3923	OH- 225
Sargeant, Mark	3923	OH- 225
Shirijian, Vahe	3925	OH- 222

Spanish

NAME	PHONE NO.	ROOM
Buscaglia, Renatta	7274	OH- 225
Drake, Millie	3923	OH- 225
Linares, Manuel	3923	OH- 225
Quinones, Hernan	7291	OH- 225
Ross, Rose	3923	OH- 225

Theater

NAME	PHONE NO.	ROOM
Horn, Mitchell	3923	OH- 225

LIBRARY SCIENCE

NAME	PHONE NO.	ROOM
Nitsch, Lisa	3978	MA-Library
Romero, Sally	5583	MA-Library
Samuel, Judith	3959	MA-Library

MATHEMATICS

NAME	PHONE NO.	ROOM
Meftagh, Tayebeh	7319	AH-508
Campos, Wendy	7330	AH- 506
Avila, Luis	7300	AH-520DD
Bakman, Dr. Anna	7299	AH-520AA
Kunarak, Sanya	7310	AH-520FF
Light, Eugene	7301	AH-520BB
Liu, Hsiao-Ling	7315	AH-520EE
Lopez, Angelica	3746	AH-520
Maheta-Wells, Parul	7314	AH-520-O
Simpson-Rogers, Nii	7329	AH-520CC

PERSONAL DEVELOPMENT

NAME	PHONE NO.	ROOM
Abraham, Angeles	7117	JH-205
Brent, Lourdes	7117	JH-205
Cole, Linda	7109	JH-403
Esparza, David	7158	JH-201
Hosseini, Ashraf	7157	JH 413
Madrid, George	7360	JH-430
Rosario, Gliceria	7117	JH-205
Skinner, Kyle	7117	JH-205

SCIENCES

Biology

NAME	PHONE NO.	ROOM
Moreno, Dr. Miguel	7322	CH-405a
Aniceto, Enrique	7295	CH- 405
Denton, Dr. Timothy	7297	CH- 423c
Gbonegun, Olu	7295	CH- 405
Gee, Dr. Angela	7296	CH- 423f
Lavinger, Steve	7295	CH- 405
Liu, Dr. Jerry	7295	CH- 405
Neal-Bernard, Mary Ann	7295	CH- 405
Neddermeyer, Karl	7295	CH- 405
Olsen, Bruce	7295	CH- 405
Robles, Manuel	7306	CH-402
Shank, Barbara	7295	CH- 405
Sobhanian, Soha	7295	CH- 405
Wong, Ricky	7313	CH-423g

Chemical Technology

NAME	PHONE NO.	ROOM
Acero, Gustavo	7295	CH- 405
Babajide, Rasaq	7295	CH- 405
Durruty, Luis	7295	CH- 405
Harutunian, Dr. Vahak	7317	CH-423e
Madyun, Renee	7318	CH- 423e

Chemistry

NAME	PHONE NO.	ROOM
Acosta-Buruel, Manuel	7295	CH- 405
Ajie, Dr. Henry	7295	CH- 405
Diaz, Dr. Martin	7302	CH- 423b
Harutunian, Dr. Vahak	7317	CH- 423e
Houban, Dr. Karl	7324	CH- 423h
Jeffress, David	7304	CH- 401
Lee, Dr. Hans	7295	CH- 405
Parkin, Steve	7295	CH- 405
Ruiz-Silva, Dr. Beatriz	7311	CH- 423f
Sachdev, Vineeta	7295	CH- 405
Villena-Visi, Mandana	7295	CH- 405
Weber, Dr. Kevin	7295	CH- 405

Faculty

NAME	PHONE NO.	ROOM
Engineering, General		
Navarro, Dr. Artemio	7321	CH-423f
Geology		
Boroon, Dr. M. H	7295	CH-405
Ortega, Gustavo	7295	CH- 405
Microbiology		
Abdulmalek, Sulaiman	7295	CH- 405
Hosseini, Mansour	7295	CH- 405
Lobos, Jedidiah	7295	CH- 405
Pantastico-Caldas, Dr. Marissa	7298	CH- 423f
Physical Geography		
Landau, Dr. Daniel	7295	CH- 405
Physics		
Goodman, Todd	7295	CH- 405
Rupa, Dr. De	7295	CH- 405
Vazquez, Carlos	7295	CH- 405
Whiting, Russ	7295	CH- 405
Physics/Astronomy		
Moreno, Dr. Miguel	7322	CH- 423g
Process Plant Technology		
Chapman, Joe	7295	CH- 405
Madyun, Renee	7318	CH- 423e
Shields, Dr. Virgil	7295	CH- 405
Sutton III, Dr. Cash	7295	CH- 405

STUDENT SERVICES - COUNSELORS

NAME	PHONE NO.	ROOM
Abraham, Angeles	7117	JH-205
Ahn, Inhae	7156	JH-422
Almada, Christina	7360	JH-424
Barajas, Byanca	____	JH205
Brent, Lourdes	7117	JH-205
Bukasa, Lorna	7117	JH-205
Burnett, Maurice	7358	JH-418
Campbell, Deborah	7359	JH-434
Cole, Linda	7109	JH-403
Dawkins, Thomas	7361	JH-432
Esparza, David	7158	JH-201
Guerrero-Cantor, Jamila	7366	JH-416
Hopper, Michael	7109	JH-403
Hosseini, Ashraf	7157	JH 413
Macias, Klaudia	3778	MA-___
Martin, Jolene	7365	JH416
Mayors, Derek	7116	MA-___
McDuffie, Eboni	7357	TE520
Munoz, Ana	7117	JH-205
Osorio, Maria	3779	MA-___
Phillips, Jasmine	7362	JH416
Senachai, Gholpat	7123	JH205
Skinner, Kyle	7117	JH-205
Tishler, Sheila	7097	JH-420

Full Time Faculty and Administration

Abraham, Angeles (2005)
Academic Treasurer
Associate Professor, Counseling
Director & Counselor, EOPS
Coordinator - Student Support Program
B.A., CSU, Dominguez Hills
M.A., Loyola Marymount University

Acosta, Manuel

Ahmad, Jamil (2000)
Professor, Business Economics
B.A., Panjab University, Lahore
M.A., Dhaka University, Dhaka, Bangladesh
M.B.A., University of Texas Pan-American, Edinburg, Texas

Ahn, Inhae (2007)
Associate Professor, Counseling
B.S., SUNY at Buffalo
M.S., CSU, Northridge
MBA, University of Nevada, Las Vegas
Licensed MFT

Aguilar, Carlos (2013)
Instructor, Sign Graphics

Alcala, Carlos (2010)
Instructor, Fashion Design
A.A., Los Angeles Trade-Technical College

Albo-Lopez, Nicole (2012)
Dean, Academic Affairs
M.H.P.E, Midwestern University

Almada, Christina (2006)
Associate Professor, Counseling
M.S.W., UCLA
B.A., CSU Los Angeles

Anderson-Houlihan, Carole (1994)
Department Chair, Design & Media Arts, Co-op
Instructor, Fashion Design
A.A., Los Angeles Trade-Technical College
B.V.E., CSU Los Angeles

Anketell, Christina (2006)
Department Chair, Academic Connections
Associate Professor, Learning Skills
B.A., University of Sri Lanka
M.A., CSU Los Angeles
M.Ed., Point Loma Nazarene University

Ashby, Cynthia (2007)
Associate Professor, Nursing
B.S.N., St. Mary's College
M.S.N., University of Phoenix

Avila, Luis (2009)
Assistant Professor, Math
B.S (physics), M.S. (Mathematics), CSU Los Angeles

Babb, Dr. Jing (2004)
Associate Professor, Child Development
B.A., Chinese Cultural University, Taiwan
M.Ed., University of Arizona, Arizona
Ph.D., Claremont Graduate University, California

Badalyan, Dr. Anna (2010)
Dean, Institutional Effectiveness
Institutional Research and Planning
MBA, American University of Armenia
MS, Computer Science, Yerevan State University
Ed.D., CSU Northridge

Bailey, Paulette (2000)
Professor, CAOT-Business
B.S., Grambling State University
M.S., CSU, Dominguez Hills
MOUS Certified

Bakman, Dr. Anna A (1999)
Professor, Mathematics
M.S., Ph.D., Moscow University of Railing Transport

Barnett, Craig J. (1987)
Professor, Refrigeration & Air Conditioning Mechanics
B.A. CSU, Northridge
M.S. University of Maryland
California State Contractors Licenses: C20 & C38

Barajas, Byanca

Barajas, Leticia (2005)
Vice President, Academic Affairs & Workforce Development
B.A., UC Irvine
M.P.A., CSU Dominguez Hills

Blanchard, LeRoy (1992)
Instructor, Culinary Arts
AOS, Culinary Institute of America (CIA)
CEC Certification – ACF

Brent, Lourdes M. (1996)
Professor, Counseling
Counselor, EOPS
Coordinator, Volunteer Program
B.A., Immaculate Heart College
M.S., Mount St. Mary's College

Bird, Bethany (2013)
Assistant Professor History
B.A. CSU Dominguez Hills
M.A. CSU Dominguez Hills
M.A. American University System

Botma, Scott (2013)
Assistant Professor, Cosmetology
B.S. University of Phoenix

Bentley, Mara (2012)
Assistant Professor, Psychology
B.A., CSU Long Beach
M.A., Pepperdine University

Brown, Stephen (2010)
Instructor, Nursing
ADN, Santa Ana College

Browne, James G. (1983)
Professor, Health Kinesiology
A.S., Los Angeles Trade-Technical College
B.S., M.A. CSU, Long Beach

Budinger, John E. (2002)
Professor, Health Kinesiology
B.A., Duke University
M.A., University of Florida

Bukasa, Lorna C. (1996)
Professor, Counseling
Counselor, CARE
EOPS Coordinator
B.S., CSU Dominguez Hills
M.A., National University

Burke, Dennis C. (2006)
Professor, Electrical Construction & Maintenance
A. S., Los Angeles Trade-Technical College
Electrical Contractors License C-10

Burnett, Maurice L. (2006)
Associate Professor, Counseling
AA., El Camino College
B.A., CSU Dominguez Hills
M.S.W., Howard University

Buscaglia, Renatta (2003)
Instructor, Spanish
A.A., Rio Hondo College
B.A., M.A., CSU Los Angeles

Campbell, Deborah N. (2007)
Associate Professor, Counseling
B.A., Whittier College
M.A., San Diego State University

Chancy, Che' (2005)
Associate Professor, Welding,
B.S, M.A., CSU, Long Beach.
A.S. Welding- , Los Angeles Trade-Technical College.

Chandler, Christine C. (2007)
Associate Professor, Nursing
B.S.N., CSU Los Angeles
M.S.N., CSU Long Beach

Chavez, Eric (1984)
Professor, Electronics
A.S., East Los Angeles College
B.S., M.A., CSU Los Angeles

Cheang, Michelle

Chen, Lina (1988)
Professor, Cosmetology
B.A., University of Taiwan
Certificate, Pomona Valley Vocational College
Licensed Cosmetologist, State of California

Cioffi, Gabriel (1996)
Professor, Refrigeration & Air Conditioning
A.S., Los Angeles Valley College
B.S., CSU, Los Angeles
M.P.A., CSU, Northridge

Contractor's License, C20 & C38

Dam, Marie Christine

Cole, Dr. Linda Eva (1994)
Director, GAIN/CalWORKs Program
Professor, Counseling
B.A., Douglass College, Rutgers University
M.A., P.D., New Jersey City University
Ph.D, Bible Believers College & Seminary
Emeritis

Damaso, Stacy (2008)
Instructor, Culinary Arts
A.A., Diablo Valley College
B.S., Cal Poly Pomona
CEPC Certification ACF

Davis-Kendrick, Maggie (2007)
Associate Professor, Nursing
B.S.N., CSU Dominguez Hills
M.N., Regis University

Dawkins, Thomas (1988)
Department Chair, Counseling
Counselor, Counseling
Professor, Counseling
B.A., Ripon College, ,Wisconsin
M.S., CSU, Los Angeles

Delzeit, Linda D (1995)
Professor, Health
Kinesiology
B.A., M.A., CSU, Long Beach

Denton, Dr. Timothy (2000)
Instructor, Biology
B.A., M.S., CSU Northridge
Ph.D., UCLA

Diaz, Dr. Martin (2007)
Academic Senate 1st Vice President
Instructor, Chemistry
B.A., M.S., CSU Los Angeles
Ph.D., UCLA

Dolan, Theresa (2001)
Instructor, English
B.A., University of Massachusetts
M.A., Boston College

Dorado, Dr. Luis (2010)
Dean, Student Services
B.A. Cal Poly Pomana
M.P.A. University of La Verne
Ed.D, U.S.C.

Dozier, Kelly (2007)
Refrigeration & Air Conditioning Mechanics

Duarte, Ana

Dunn, Roger W. (1992)
Instructor, Carpentry
A.S., Los Angeles Trade-Technical College

Elarton, William D. (1988)
Department Chair, Construction, Design & Manufacturing
Apprenticeship Coordinator, LATTC
Professor, Electrical Construction & Maintenance
B.S., Southern Illinois University
M.A., CSU Dominguez Hills

Encinas, Dan A. (2001)
Instructor, Automotive Technology
A.A., East Los Angeles College
B.A. M.A., CSU Los Angeles
ASE, STS, SAE, MACS Licensed

Esparza, David (1996)
Director, University Transfer Center
Associate Professor, Counseling
B.A., UCLA
M.A., CSU, Dominguez Hills

Evans, George (1997)
Instructor, Visual Communications
B.F.A., California Institute of the Arts

Feigenbaum, Susan B. (1991)
Instructor, Culinary Arts
A.A., Paul Smith's College

Ferre, Brian (2005)
Instructor, Automotive Collision
A.A., Cerritos College
I-CAN Certified
ASE Master Certified

Frank, Laurence B. (2013)
President
B.A., St. Lawrence University
J.D., UCLA School of Law

Galindo, Maryanne (2012)
Associate Professor, Noncredit Basic Skills-Interdisciplinary
B.A., CSU, Los Angeles

Gallagher, Dr. Mary P. (2008)
Vice President, Administrative Services
B.S., Cal Poly Pomona
M.B.A., Pepperdine University
Ph.D., Claremont Graduate University

Gangel-Vasquez, Janice (2000)
Department Chair, English/ESL
Associate Professor, English
B.S., CSU Long Beach
M.A., CSU Dominguez Hills

Galvan, Willie (2010)
Instructor, Plumbing
A.S., Los Angeles Trade-Technical College
Certified Green Plumbing Trainer
Certified BPI Trainer
Nate Certified

Gary, Dr. Karl L. (2002)
Professor, Paralegal
B.A., Occidental College
M.B.A., J.D. Willamette University
Licensed Attorney, State of California

Gee, Dr. Angela (2012)
Assistant Professor , Biology
B.A. UC Berkeley
Ph.D., Columbia University

Glass-Villalobos, Nurit (2005)
Instructor, Fashion Design
A.A. Los Angeles Trade-Technical College

Glavan, Dr. John (2006)
Department Chair, Language Arts/Humanities
Associate Professor, Communications Studies (formerly Speech)
B.A., University of San Francisco
M.A., Pepperdine University
Ph.D., Oregon State University

Goldstein, Benjamin

Goluza, Brano (2008)
Associate Professor, Electrical Construction & Maintenance
A.S., Los Angeles Trade-Technical College
Electrical Contractor's License C-10

Gonzalez, Dr. Michael A. (1982)
Professor, English & Humanities
B.A., CSU, Los Angeles
M.A., UC Irvine
M.F.A., Ph.D., UCLA

Guerra, Jesus "Jess" (2005)
Department Chair, Advanced Transportation and Manufacturing Technologies
Associate Professor, Transportation
A.S., Los Angeles Trade-Technical College

Guerrieri, Joseph (2007)
Dean, Academic Affairs & Workforce Development
B.A., University of Virginia
M.F.A., U.S.C.

Guerrero-Cantor, Jamila (2012)
Assistant Professor, Counseling
Counselor, General Counseling
B.A. , U.C. Santa Cruz
M.A., Gallaudet University

Guthrie, Ralph T. (1993)
Instructor, Sign Graphics
A.A., Los Angeles Trade-Technical College
Emeritis

Hanley, Wallace (2008)
Academic Senate President
Associate Professor, Carpentry
B.A. Antioch University
M.A. Antioch University

Hardy, LaTanga (2012)
Director, Child Development Center
Assistant Professor, Child Development
B.A., M.S., M.A. CSU Northridge

Harutunian, Dr. Vahak (2000)
Instructor, Chemical Technology
B.T, Brunel University, London
M.S., Loughboro University, England
Ph.D., U.S.C.

Herbert, Pamela Jo (1980)
Instructor, Fine Arts
B.F.A., M.F.A., U.S.C.

Hopper, Michael L. (2008)
Counselor, GAIN/CalWORKs
Associate Professor, Counseling
B.A., M.S.W., San Francisco State University

Hosseini, Ashraf (1999)
Counselor, Counseling
Puente Counselor
B.S., Coe College, Iowa
M.S., U.S.C
M.F.T. Certification

Houben, Dr. Karl (2009)
Instructor, Chemistry
Ph.D., UC Riverside

Hubbard, Larry E. (1999)
Instructor, Carpentry & Cabinetmaking
A.A., Los Angeles Pierce College
B.A., CSU, Los Angeles

Hubbard, Roger (1989)
Instructor, Visual Communications
AA., Los Angeles Trade-Technical College
B.F.A., Art Center College of Design, Los Angeles

Huld, Philip (2000)
Instructor, Anthropology
B.A., M.A., CSU, Los Angeles

Jackson, Ronald E. (1994)
Professor, Electrical Construction & Maintenance
A.S., Los Angeles Trade-Technical College
Electrical Contractor's License C-10

Jackson, Tiffany (2007)
Instructor, Fashion Design
A.A. Los Angeles Trade-Technical College

Jackson, Vincent (2009)
Dean, Academic Affairs & Workforce Development
B.S., CSU, Dominguez Hills
M.P.A., CSU, Dominguez Hills

Jenkinson, Deborah A. (1999)
Associate Professor, Nursing
A.A., Pasadena City College
B.S.N., M.N., UCLA

Johnson, Paula (2010)
Instructor, Nursing
B.S.N., Mount St. Mary's College
M.S.N., Mount St. Mary's College

Jones, Larry (2002)
Associate Profession, Plumbing
A.A., Los Angeles Southwest College
A.S., Los Angeles Trade-Technical College
B.S., CSU Dominquez Hills
Licensed Plumbing Contractor's License, California
Certified Green Plumbing Instructor-Trainer

Joof, Dr. Henan L. (2014)
Dean, Student Services
A.A, Glendale Community College
B.A, CSU Northridge
M.Ed., USC
Ed.D., USC

Kanemaki, James (2007)
Instructor, Culinary Arts
A.A., El Camino
A.A., Los Angeles Trade-Technical College
B.A., CSU Dominguez Hills

Kasmar, Steven (1992)
Department Chair, Culinary Arts
Instructor, Culinary Arts
A.A., Orange Coast College
CEC Certification ACF

Kim, Hyein (1999)
Professor, Fashion Design
M.A., Seoul National University
M.S., Kansas State University

Kinyon, Kindra (1992)
Professor, ESL
B.A., M.A., U.S.C.

Koritzke, Leslee (1996)
Professor, Psychology
B.A., M.A., CSU Northridge

Kunarak, Sanya (2008)
Associate Professor, Mathematics
B.A., M.S., CSU Los Angeles
M.A., UCLA

Lagos, Dimitri R. (2006)
Assistant Professor, Health Kinesiology
B.S., M.S., CSU, Los Angeles

Lee, Aileen (2005)
Instructor, Fashion Design
A.A. Los Angeles Trade-Technical College

Legohn, Lisa M. (1994)
Associate Professor, Welding Gas & Electric

Lester, John (1991)
Assistant Professor, Electrical
A.S., Los Angeles Trade-Technical College
Contractor's License C-10

Ley, Lidia (2002)
Instructor, Cosmetology
A.A., Cerritos College
Licensed Cosmetologist, State of California

Light, Eugene M. (1995)
Associate Professor, Mathematics
B.A., UC Irvine
M.S., Colorado State University

Lisanti, James (1999)
Instructor, Culinary Arts
Culinary Arts Diploma, Western Culinary Institute
B.S.E., Indiana State University, Terre Haute
M.C.F.E.

Liu, Dr. Hsiao-Ling (1992)
Professor, Mathematics
Ph.D., University of Alabama

Lopez, Angelica (2013)
Assistant Professor, Mathematics
B.S., Michoacan University of San Nicolas de Hidalgo, Michoacan, Mexico
M.S., CSU Los Angeles

Lopez, Rosa M. (1995)
Professor, Cosmetology
A.A., Los Angeles Trade-Technical College
A.A., Glendale Community College

Macias, Klaudia (2012)
Associate Professor, Counseling
B.A. CSU Los Angeles
M.S. CSU Los Angeles

Madyun, Renee (1995)
Professor, Chemical Technology
A.A., Los Angeles Trade-Technical College
B.A., CSU, Northridge

Maheta-Wells, Parul (2012)
Assistant Professor, Mathematics
B.S., B.Ed., Aujarat University, India
M.S., CSU Los Angeles

Maina, Dr. Rose Gathoni (2000)
Professor Child Development
B.Ed., Kenyata University, Nairobi
M.A., Mills College, California
Ed.D., U.S.C.

Majors, Derek

Mancia, Roberto (2002)
Instructor, English
B.A., M.A., CSU Long Beach

Martin, Jolene

McClain, Dr. Freddie (1993)
Department Chair, Behavioral Social Sciences & Child Development
Professor, Sociology
B.S., M.A., MSW, Ph.D., University of Michigan

McDermott, Deirdre (2002)
Instructor, Communication Studies (formerly Speech)
B.A., M.A., CSU Northridge

McDowell, John R. (1978)
Department Chair, Labor Studies/Community Planning
Professor, Labor Studies/Labor Center
B.A., M.A., CSU, Sacramento

McFall, Thomas J. (1990)
Professor, Automotive/ Collision Technology
A.A., Cerritos College
B.V.E., CSU, Long Beach
ASE – Certified Auto & Collision

McIntosh, Artina U. (2012)
Assistant Professor, Business Administration
B.S., CSU Dominguez Hills
M.B.A., University of Phoenix
LLC, State of California

Meftagh, Tayebeh (1993)
Department Chair, Mathematics
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B.S., M.S., UCLA

Mendez, Armando E. (2012)
Instructor, English
B.S., USNA, Annapolis
M.A., University of San Diego

Morago, Frederick (1985)
Instructor, Automotive Collision Repair
A.A., Cerritos College
CAR Platinum Certification ASC
Platinum Certification in Painting, Body Work

Moreno, Lisa (2001)
Assistant Professor, English
B.A., M.A., CSU Los Angeles

Moreno, Dr. Miguel A. (1981)
Department Chair, Science
Professor, Physics & Astronomy
B.S., University of California, Berkeley
M.S., Ph.D., UCLA
NASA former Senior Scientist - Hubble Space Telescope
Founder & Coordinator, USC-LATTC Partnership Program, 30 years of professional experience

Mock, Jearold (2009)
Instructor, Communication Studies (formerly Speech)
B.A., M.A. Eastern Illinois University

Morley-Mower, Cynthia A. (2002)
Dean, Academic Affairs & Workforce Development
B.A., University of Santa Clara
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Muñoz, Ana (2008)
Associate Professor, Counseling
Counselor
B.A. University of Mexico
M.S., CSU, Northridge

Murphy, Diane (2006)
Associate Professor, Fashion Merchandising
B.S. University of Arizona

Navarro, Dr. Artemio (2013)
Associate Professor, Engineering
B.S. UC Berkeley
M.S. UCLA
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Needham, Matthew R., (2001)
Instructor, Refrigeration & Air Conditioning
A.S. Los Angeles Trade Technical College
City of LA Steam Engineer's License

Nieves, Thomas G. (2000)
Instructor, Electrical Construction & Maintenance
A.S., Los Angeles Trade-Technical College
Electrical Contractor's License C-10

Nitsch, Lisa (2012)
Assistant Professor, Library Science
A.A., Pasadena City College
B.A., CSU Los Angeles
M.L.S., UCLA

Oliva, Marcela (1991)
Professor, Architecture
B.Arch USC
M.Arch Building Science Columbia University, N.Y., N.Y.

Olszewski, John (2012)
Instructor, Building Construction Techniques

Ortiz, Jennifer

Osorio, Maria (2012)
Assistant Professor, Counseling
B.A., CSU, Northridge
M.S., CSU, Los Angeles

Pakbaz, Mehrdad "Matt" (2012)
Assistant Professor, Computer Information Systems
B.A., University of Tehran
M.A., USC
M.S., Pacific Azusa University

Pantastico-Caldas, Dr. Marissa C. (1996)
Professor, Biology Microbiology
B.S., University of the Philippines, Los Banos
Ph.D., University of Arizona

Parker, Carolee (1994)
Associate Professor, Humanities
B.A., B.F.A., UC Irvine
M.A., UCLA

Patron, Anett (1992)
Instructor, Child Development Center
B.A., Mount Saint Mary's College
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Perez, George (2012)
Associate Professor, Diesel & Related Technologies
A.S. Los Angeles Trade-Technical College

Phillips, Jasmine

Pogoler, Lawrence D. (1990)
Professor, Electrical Construction & Maintenance
A.S., Los Angeles Trade-Technical College
B.V.E., CSU, Los Angeles
Electrical Contractor's License C-10

Quiñones, Hernán C. (2002)
Instructor, Spanish
BA, MA, Universidad Nacional Mayor de San Marcos, Perú

Ramirez, Adela (1998)
Child Development Center Teacher
A.A., East Los Angeles College
B.A., CSU Los Angeles

Ramirez, Jose L. (2011)
Instructor, Automotive Technology

Ramirez, Jose R. (2013)
Instructor, Diesel & Related Technology

Ramirez, Mario

Randall, Dr. Ayesha K. (2001)
Professor, Education
B.A., UC Berkeley
M.A., Harvard University
Ed.D., University of Southern California

Ratcliff, Joseph (2000)
Department Chair, Health Kinesiology
Instructor, Kinesiology
Athletic Director
B.A., Glassboro State College/Rowan University
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Rios, Manuel

Rauterkus, Peter (1973)
Professor, Machining Technology
A.A., Los Angeles Trade-Technical College
B.A., CSU, Los Angeles
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Robinson, David S. (1999)
Professor, Electrical Construction & Maintenance
A.A., Los Angeles Trade-Technical College
B.V.E., CSU Los Angeles
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Electrical Contractor's License C-10
California State Certified General Journeyman Electrician

Robinson, Elton J. (2000)
Academic Senate 2nd Vice President
Department Chair, Cosmetology
Professor, Cosmetology
A.A., Riverside Community College
B.A., Southern Illinois University
M.A., CSU, Los Angeles
Licensed Cosmetologist, State of California
Licensed Barber, State of California

Robinson, Thurman E. (1975)
Professor, History, Ethnic Studies
B.S., CSU, Hayward
M.A., UCLA

Robles, Luis (2012)
Instructor, Culinary Arts
A.A., A.S., Los Angeles Trade-Technical College
CFE, Certified Food Service Executive

Rodriguez, Caesar (2013)
Instructor, Visual Communications

Rodriquez-Estrada, Alicia (2000)
Academic Senate Secretary
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Rogers, Merle (2001)
Associate Professor, Electrical Construction & Maintenance
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BVE, CSU Los Angeles

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Romero, Sally (2013)
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B.A., CSU Fullerton
MLS, San Jose State

Roosta, Soraya (1998)
Professor, Electronics
B.S., University of Colorado
M.S., Gannon University, Erie, PA

Ruiz-Silva, Dr. Beatriz (2000)
Instructor, Chemistry
B.S., University Michoacana, Mexico
Ph.D., University of British Columbia, Canada

Samuel, Judith C. (2010)
Department Chair, Library
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B.A., UCLA
M.A., New York University
M.A., UCLA
MLS, San Jose State University

Senachai, Gholpat "Donny"

Semadeni, Albert (2012)
Assistant Professor, Diesel & Related Technologies

Shackelford, Sondra (2000)
Associate Professor, Cosmetology
A.A., Pasadena City College
B.S., University of South Illinois
M.A., Cambridge College
Licensed Cosmetologist, State of California

Shakir, Rashidah (2000)
Associate Professor, English
B.A., Spelman College
M.A., Michigan State University

Shibuya, Steven T. (1999)
Professor, Machining Technology
A.A., Ventura College
B.S., CSU, Long Beach

Shields, Dr. Virgil

Simpson-Rodgers, Nii (2008)
Instructor, Mathematics
B.S., M.S., CSU Long Beach

Skinner, Kyle D (1996)
Counselor, EOPS
Instructor, Counseling
B.A., U.S.C.
M.A., Loyola Marymount University

Slade, Timothy

Smith, Dorothy (1977)
Dean, Student Services
B.A., M.A., North Carolina A&T State University

Soles, Barbara (2006)
Associate Professor, Nursing
A.A. LA Southwest College
BSN, MSN, University of Phoenix

Sonnier, Dr. Greta D. (2012)
Assistant Professor, Business
B.S., University of La Verne
M.B.A., CSU Pomona
J.D., University of La Verne
Licensed Attorney, State Bar of California
Certified Mediator

Spear, George (1976)
Assistant Professor, Automotive Technology
A.S., Los Angeles Trade-Technical College

Spence Roslyn (2008)
Instructor Culinary Arts
Grand Diplome: Cordon Bleu Culinary School, Paris
B.A., California State University, Long Beach

Sullivan, Dr. Sally, (1997)
Professor, Health & Kinesiology
(formerly Physical Education)
A.A., Santa Monica College
B.A., M.A., PhD., USC

Sylvers, Anthony

Szymanski, Gary J (1999)
Instructor, Art
B.A., UC Santa Cruz
M.F.A., UC Irvine

Tarrant, Dr. Kaneesha (2014)
Vice President, Student Services
B.S., M.S. Boston University
Ed.D U.S.C.

Tishler, Sheila D. (1992)
Professor, Counseling
B.A., UCLA
M.A., Azusa Pacific University

Tom-Miura, Dr. Allison (2004)
Associate Professor, Noncredit Basic Skills-Interdisciplinary
B.A., UC Santa Barbara
M.P.L., D.P.D.S., U.S.C.

Uchida, Hiroshi (1985)
Professor, Electrical, Construction & Maintenance
B.A., Claremont McKenna College

Uribe, John (1998)
Instructor, Automotive Technology
A.S., Los Angeles Trade-Technical College

Vachon, Jerry (2008)
Instructor Culinary Arts
AS Culinary Institute of America
BS Ohio Dominican
CEC Certification ACF

Vaden, Dr. Bradley D. (2001)
Instructor Political Science
B.A., Brigham Young University
Ph.D., University of Hawaii

Vega, Cecilia (2004)
Associate Professor, Child Development
B.A., M.A., CSU Northridge

Viliesid, Carmen (2012)
Instructor, English
B.A., M.F.A., CSU Long Beach

Villora, Dr. Rosalie (2007)
Associate Professor, Nursing
B.S.N., M.N., UCLA

Walker, Thomas "T.J." (2013)
Instructor, Fashion Design
A.A., Meridian Junior College
B.A., Delta State University
M.A., Louisiana Tech University

Wagenbach, Michael (1994)
Instructor, Health Kinesiology
B.A., M.A., CSU, Long Beach

Washington, Carolyn A. (2007)
Associate Professor, Nursing
B.S.N., CSU Northridge
M.S., CSU Northridge

Watanabe, Chikako "Ruth" (2004)
Instructor, Fashion Design
A.A., Los Angeles Trade-Technical College
B.A., San Diego State University

Wells, Richard L. (1979)
Associate Professor, Health Kinesiology
B.A., Whittier College
M.A., Asuza Pacific College

Wemischner, Robert B. (1992)
Instructor, Culinary Arts
B.A., University of Pennsylvania

Wilson-Aus, Aileen (2012)
Assistant Professor, Business
B.A., Loyola Marymount
M.B.A., Azusa Pacific University

Wong, Ricky K. (1992)
Professor, Biology & Microbiology
B.S., University of Hawaii at Manoa
M.S., CSU, Los Angeles

Woo, William F. (1989)
Professor, Automotive Related Technology
A.A., East Los Angeles College

Yasuda, Kathleen (2003)
Consulting Instructor - Labor Studies
B.S., UC Irvine
M.A., Harvard University

Adjunct Faculty

Abd El Aal, Mohamed A. (1991)
Water Systems Technology

Abdul-Mumin, Jah'Shams (2006)
Learning Skills/Noncredit

Abkian, Varouj (1991)
Water Systems Technology

Adams, Ludmilla (2006)
Fashion Design

Adelstein, David (1988)
Labor Studies

Ajie, Dr. Henry (2005)
Chemistry

Allen, Gene E. (1983)
Refrigeration & Air Conditioning

Amir-Teymoor, Abbas (2001)
Water Systems Technology

Anderson, Virginia M. (1990)
American Sign Language

Armstrong, Anne (1999)
Adjunct Assistant Professor, Humanities

Babaside, Rasaq Michael (2007)
Process Plant Technology

Barrow, Orrin (1989)
Mathematics

Bayssa, Beyene (2008)
Mathematics

Beaird, Helen
Counseling

Benjamin, Michelle (2004)
Child Development

Bevacqua, Anthony (2009)
Psychology

Blake, George (2002)
English

Blount, Paul (2002)
Solid Waste Management

Borne, Alvin C. (1962)
Speech

Brady, Patrick A. (1992)
Refrigeration & Air Conditioning/Steam Plant

Brkic, Ferdo (1998)
Electrical Construction & Maintenance & Machining Technology

Brooks, Marva (1999)
Fashion Design

Brumell, Bertis R. (2010)
Accounting

Burgin, Mark Dr. (2000)
Mathematics

Cain, Lisa (2006)
Psychology

Calderon, Joaquin (2008)
Labor Studies

Campbell, Dr. Robert (1978)
Microcomputer

Cantore, Robert A. (1996)
Labor Studies

Carter, Michael, (2006)
Anthropology

Carter, Terry (2008)
Music

Certo, Delaine (2007)
Adjunct Assistant Professor, Child Development

Chammas, Marwan (2000)
Mathematics

Cheeseman, James (2008)
Music

Chen, Charles K. (1981)
Mathematics

Chen, Mindy (2010)
Labor Studies

Chelstrom, Aura (2002)
Child Development

Cherner, Henry (1999)
Fashion Merchandising

Cole, Valerie
Learning Skills

Conrow, Teresa (1996)
Labor Studies

Corbin, Bobby (1999)
Refrigeration/Air Conditioning Mechanics

Corneal, Aisha (2007)
Adjunct Assistant Professor, American Sign Language

Coulter, Lionel (2000)
Political Science

Crunkleton, J.D.
Computer Information Systems

Cunnigan, Dixie (1999)
Fashion Design

Curtin, Kevin (1981)
Electrical Construction & Maintenance

Cyrus, Shawn (1993)
Electronics

Dagher, Ghassan Nicolas (1989)
Mathematics

Darmanyan, Pavel Dr. (2006)
Chemistry

Datis, Angelo (2002)
Refrigeration/Air Conditioning Mechanics

Dean, Craig R. (2003)
Plumbing

De la Pena, Norma (1999)
ESL

Del Valle Thompson, Katarina (2001)
Labor Studies

Demers, William (1989)
Labor Studies

Dezgaran, Mohamad (2001)
Child Development

Dickerson, Denise (2002)
Child Development

Drake, Dr. Mildred (1992)
Spanish

Egan, Richard (1997)
Philosophy

Elliot, Joy
Community Planning & Economic Development

El Tawansy, Mohamed (1972)
Mathematics

Emerson, Victoria M. (2006)
Adjunct Assistant Professor, CAOT

Espinoza, Albert (1982)
Refrigeration/Air Conditioning Mechanics

Essex, Dr. Robert W. III (1983)
Child Development/Psychology

Estroff, Ronald (2005)
Learning Skills

Ford, Scott (1998)
Labor Studies

Freidenberger, Karen (2004)
Plumbing

Friedman, Bruce (2000)
History

Garcia, James A. (2003)
Sociology

Garcia, Rogelio (2012)
Political Science

Garnica Diaz, Edith (2013)
Culinary Arts

Gbonegun, Olu Dr. (2006)
Biology

Gomez, Evelyn (2005)
Child Development

Gomez, Jimmy (2010)
Labor Studies

Gonzalez, Raymond (1977)
Accounting

Goodman, Todd (2005)
Physics

Goyn, Bruce Allen (1977)
Automotive Technology

Gray, Laura (2007)
Child Development

Grissett, Robert
Automotive Tech.

Guerra, Ricardo (2005)
Automotive & Related Technology

Gutierrez, Edgar O. (2005)
History

Hart, Matt (2008)
Labor Studies

Haymon, Sharon
Adjuct Assistant Professor, CAOT

Hicks, Carl (2007)
Labor Studies

Hosseini, Sayed M. (2003)
Microbiology

Hunt, Robert (2006)
Labor Studies

Iadevaia, Richard
Adjunct Assistant Professor, Electrical Construction & Maintenance

Iapaolo, Nino (2007)
Tailoring

Jackson, Diana B. (1976)
History

Jackson, Deryl, (2007)
Admin Justice

Jeffress, David A. (1984)
Chemistry

Johnson, Bert (2008)
Sign Graphics

Johnson, Debbie (2001)
Fashion Design

Johnson, Ed (1976)
Business

Johnson, Robert (2007)
Accounting

Jones, Latricia (2006)
American Sign Language

Kahng, Paul (1987)
Refrigeration & Air Conditioning Mechanics

Kapaku, Okima (1991)
Computer Applications/Office Technologies

Kaplan, Irv (1999)
Child Development

Karasik, Paul (2008)
Mathematics

Karthas, Nicholas George (1965)
Electrical Construction & Maintenance

Kiel, Wilma (2000)
Child Development

Kincses, Gabor (2004)
History

King, Dr. Graves
Health Education

Klipple, Jody (2002)
Labor Studies

Kumada, Rumi (2000)
Mathematics

Landau, Dr. Daniel (2001)
Geography

Lavinger, Stephen W. (1981)
Biology

Le, Kenadi (2007)
Labor Studies

Lee, Dr. Hans(2009)
Chemistry

Lee, Mary (2010)
Community Planning & Economic Development

LeVeque, Victoria (1985)
English as a Second Language

Levy, Lewis (1989)
Labor Studies

Linares, Manuel (2005)
Spanish

Lindsey, Michael P. (2008)
Computer Application Office Technology

Loop, Craig B. (1990)
Mathematics

Lovett, Mildred (1999)
Adjunct Assistant Professor, Child Development

Maalouf, Eli (2004)
Electrical Construction & Maintenance

Maine, Marilyn (1995)
Cosmetology

Maffei, Ghosha (1999)
Labor Studies

Manchanda, Yash (1976)
Mathematics

Maritnov, Valdimir (2004)
Operational Maintenance Engineer

Mayfield, Mike
Physical Education (Kinesiology)

McLaughlin, Regina (2005)
Child Development

McMahon, June (1989)
Labor Studies

McNamara, Catherine (1997)
Speech

Melin, Linda A. (1990)
Pattern Making & Design

Mendoza, Steven Dr. (2007)
Psychology

Myers, Alannah
Adjunct Assistant Professor, Cosmetology

Miller, Erika (2001)
Psychology

Monge, Jacqueline
Adjunct Assistant Professor, Cosmetology

Morris, Frederick (1988)
Visual Communications

Mortimer, Art (2004)
Sign Graphics

Nakano, Melvin (1996)
Mathematics

Nasrallah, Ghassan B. (1988)
Electrical Construction & Maintenance

Neddermeyer, Karl (2008)
Biology

Newell,Rene, (2005)
Instructor, Welding Gas & Electric (Sculpture)

Nieves, Paul. (2011)
Instructor, Electrical Construction & Maintenance

Nunley, Rosalyn
Adjunct Assistant Professor, Cosmetology

Nwoko, John C.A. (1999)
Adjunct Assistant Professor, Learning Skills

Olivas, Armando (1992)
Labor Studies

Olsen, Bruce D. (2000)
Adjunct Assistant Professor, Biology

Adjunct Faculty

Osuna, Corrie (2008)
Fashion Design

Ovanessian, Aida Dr. (2004)
Adjunct Assistant Professor, Mathematics

Owen, Margaret (2002)
Library

Paige, Bernard A. (1977)
Mathematics

Paller, Joseph (1996)
Labor Studies

Parkin, Steve Dr. (2005)
Chemistry

Payne, Vajezatha (2001)
Sociology

Pfiffner, Brian
Health & Physical Education (Kinesiology)

Poplawski, Denny (1981)
Electrical Lineman Apprentice Instructor

Porter, Alfred B (1995)
Adjunct Assistant Professor, Learning Skills

Price, Robert (1990)
Motorcycle Mechanics

Proctor, Ernest (1990)
Computer Applications Office Technology/Computer Information Systems

Ramirez, Robert (1981)
Electrical Construction & Maintenance

Ray, Eric (2000)
Music

Reed, Patrick (2010)
Digital Media

Robles, Bill (1991)
Visual Communications

Rodriguez, Gloria (1997)
Child Development

Ross, Rose Mary (1973)
Spanish

Rostami, Maryam (2001)
Adjunct Assistant Professor, Child Development

Sachdev, Dr. Vineeta (2007)
Chemistry

Sanchez, Salvador (2004)
Political Science

Sargent, Mark (2005)
Philosophy

Schwartz, Gregory (2007)
Geography

Scudder, Stuart Barrett (1972)
Business

Seck, Steven E. (1981)
Physical Education (Kinesiology)

Seetao, David
Computer Applications Office Technology

Seitz, John
Electrical Construction & Maintenance

Shank, Barbara A. (1988)
Biology

Shirikjian, Vahé (2006)
Philosophy

Scherer, David (2005)
Culinary Arts

Sherer, Richard (1986)
Mathematics

Siegel, Lou (1990)
Labor Studies

Skarr, Geoff (2008)
Physical Education (Kinesiology)

Smith, Felicia
Adjunct Assistant Professor, Cosmetology

Stafford, William (1998)
Pattern Making & Tailoring

States, Randy, (1971)
Electrical Lineman Cable Splice Apprentice Instructor

Stevens, A. (1973)
English

Sussman, Dan, (2005)
Electrical Construction & Maintenance

Sutton III, Cash (2006)
Process Plant Technology

Taylor, Pamela (1990)
Computer Application & Office Technology

Tabakian, John Paul (2004)
Political Science

Tee, Vincent (1989)
Computer Information Systems

Torda, Jr. Benito Santero (1989)
Tailoring

Torres, Benjamin
Community Planning & Economic Development

Toure, Yolanda (1984)
Business

Towhidlow, Mark (1991)
Mathematics

Tran, Le (2008)
Mathematics

Troft, Ralph (1995)
Humanities

Udeochu, Mercy (2002)
Child Development

Velez, Magda (2007)
American Sign Language

Visi, Mandana Z. (2008)
Chemistry

Wachs, Michael (2007)
Music

Wade, Gary, (1980)
Electrical Lineman Apprentice Instructor

Wallach, Mark (2006)
Psychology

Wang, Pei (2006)
Political Science

Walker, James (1997)
Labor Studies

Warriner, Donald (2004)
Culinary Arts

Wiegand, Carl R. (1965)
Electrical Construction & Maintenance

White, Jackie (1989)
Labor Studies

Williams, Jacqueline (2007)
Child Development

Williams, Starlene (2005)
Labor Studies

Wing, Ella (2000)
Counselor

Winston, Ray (1984)
Electrical Construction & Maintenance

Wolff, Goetz (2007)
Labor Studies

Yonge, Wanda (2006)
Adjunct Assistant Professor, Computer Applications and Office Technology

Young, Carolyn
Adjunct Assistant Professor, Cosmetology

Zigman, Lou (1989)
Labor Studies

Zinenberg, Victor (2002)
Mathematics

Emeriti Faculty

Adams, Earl—Counseling
Adams, Esther—Nursing
Albrecht, Don—Drafting Technology
Alerich, Walter—Electrical-Mechanical Technology
Ambers, Billie—Counseling
Arens, Wayne—Electronics
Armstrong, Helen—Fashion Design
Armstrong, Kenneth—Electronics
Arnheim, Nancy—GAIN
Arnold, Evan—Automotive Technology
Ashton, Lillian—Cosmetology
Austin, Brenda—Nursing Education
Avazian, Dorothy—Fashion Design
Azat, Issa—Psychology
Bailey, George—Offset Presswork
Bailey, Melbourne E.—Elect Const & Maint
Baklayan, Shoushan—CAOT
Banda, Paula—Counseling
Barbarossa, Fred—Diesel & Truck Technology
Barberio, Tony—Dance/Health
Barham, Edna R.—Counseling
Barillier, Bill—Ass't Dean of Students
Barrett, Blanche—Cosmetology
Bartlett, Steve—Automotive Technology
Bastone, John—English
Baumgardner, Betty—Apparel Arts
Beck, Julius—Culinary Arts
Becker, Richard—Machine Shop - CNC
Bercseny, Alice—Nursing
Biasi, Roger—Auto Mechanics
Biggs, Burcott D.—Printing Technology
Billings, George—Photography
Blanchard, Leroy- Culinary Arts
Bliss, Rolly—Business & Industrial Supervision
Bonzo, Al—Ass't Dean Culinary Arts
Borio, Courtney—Physical Education
Buonauro, John M—Refrigeration/Air Conditioning
Bowe, Harry L.—Refrigeration/Air Conditioning
Bragg, Arland—Visual Merchandising & Display
Brand-Njoku, Mary—Fashion Design
Brassine, George—Drafting Technology
Bright, Marie—Nursing
Brinkman, Fred—President
Broulard, Inge—Fashion Design
Brown, Mel—English
Brown, Pete—Physical Education
Buhler, William—Building Construction Technology
Burnham, Doris—Nursing
Burns, Howard—Sociology
Campbell, Robert - Electronic Technology
Cardoza, Raul—Dean, Enrollment Management
Carlson, Ralph—Printing Technology
Carr, Eleanor—Nursing
Carrillo, Pauline—Director—Child Development Center
Cavanaugh, John M.—Diesel & Related Technology
Chambers, Marion—Automotive Technology
Chapdelaine, Dr. Roland "Chip" - President
Chase, Don—Coor. Aircraft Trades
Childers, Richard—Construction Technology
Chodos, Judith—English
Chu, Eleanor—Office Administration
Cloud, Dorothy—Business
Coates, Rissa—Cosmetology
Coreas, Madeline - Fashion Design
Corwin, Harold—Automotive Technology
Coulter, Kitty—Fashion Design
Crane, Lloyd—Coor. Culinary Arts
Crawford, Margaret—Dean Evening Division
Creech, James—Printing
Cunningham, Terry—Electrical
Cyrus, Shawn - Electronic Technology
DaSilva, Nadia—Spanish Language Arts
Davar, Saeed—Mathematics
David, Oscar A.—Cabinet Making & Millwork
Davidson, Jack—Baking
Davis, Charles—Coor. Research & Development
DeFranco-Browne, Diane—Dance
De Long, Verna—Counseling
De Mers, Lowell—Business
De Page, Mike—Aircraft Mechanics
Denard, Bernice—Fashion Design
Deritis, Vincent,
Desmond, Eileen—Vocational Nursing
Devlin, David—Restaurant Management
Diggins, Bernie—Plastics
Dismukes, Tom—Architectural Technology
Dobrian, Ed—Business
Dollardhide, Ruby—Cosmetology
Douglas, Theda S.—Dean—Student Services
Drebskaya, Finna - Fashion Design
Dunn, Bob—Carpentry
Earnest, Richard—Sign Graphics
Eisenstein, Lenore—Fashion & Visual Merch.
Eisler, Estelle—Fashion Design
El-Tawansy, Mohamed—Mathematics, Physics, & Engineering
Elder, Alice—Fashion Design
Encinas, Dan - Automotive Technology
Erickson, Ed—Coor. Electronics Technology
Escobedo, Eduardo—Counseling
Essex, Robert—Psychology/Child Development
Estrup, Hans—Fashion Design
Exum, Doris—Fashion Design
Ferraro, Richard, Political Science
Fimbres, Frederick—Physical Education
Florio, Pete—Printing
Floro, Valerie—Nursing
Frederick, Ted—Metals Technology
Freeland Dave—Drafting Technology
Friedel, Philip—Electrical Technology
Gale, Joyce—Art Trades/Fashion
Garay, Reynaldo—Dean, Academic Affairs
Garstka, Polly, Acting VP, Academic Affairs
Gentry, James—Counselor
Gerdes, Joe—Air Conditioning Technology
Giblin, Roger—Electrical Technology
Gilreath, Woody—Registrar
Gindraux, Jim—Commercial Art
Glennan, Pete—Ass't Dean Admissions
Gobin, Grace—Nursing
Goetz, Geraldine—Fashion Design
Gonzalez, Raymond—Accounting
Gonzalez, Rose—Cosmetology
Goodie, John—Air Cooled Engine Repair
Gordon, Alice—Business
Goss, Joseph—Printing
Grater, Vincent—Electronics Technology
Gray, jr., Elliot C.—Elect Constr & Maint
Green, Earnest—Director—Culinary Arts
Grigsby, Leah—Speech
Grunbaum, Dorien—ESL
Halsey, Frank—Automotive
Harmetz, Richard—English
Harris, Margie—Speech
Hartwig, Betty J.—President
Hatchimonji, Mike—Photography
Hayes, Felix—Music
Heanue, Helen—Philosophy
Hedley, John D.—Culinary Arts
Henry, Leroy K.—Accounting
Henry, Robert—Business & Office Adm.
Hernandez, Daniel—Machine Shop - CNC
Hershsberger, Catherine—English & Education
Hill, Mark—English
Hinojosa, Jose—Printing
Hochman, Mary—Library
Hoffman, Bob—Printing
Hollingsworth, Patricia—Language Arts/Humanities
Hundley, William—Carpentry
Hunt, Clarence—Drafting Technology
Hunt, Karen—Child Development Center
Hunt, Horace—Physical Education
Hushaw, Dale—Fashion Design
Hushaw, Jeannette—Dean Instruction
Jackson, Diana - History
Jacobs, Loreto - Nursing
Johnson, Franklin—Dean Instruction & Curriculum
Johnson, Oscar—Machine Shop - CNC
Johnson, Viola—Fashion Design
Johnson-Taylor, Chini—Counseling
Jones, Daniel—Electronics
Jones, Oliver—Physical Education
Jones, Willie—Automotive
Kahng, Paul—Refrigeration & Air Conditioning
Katzman, Louis—Electronics
Kelly, William—Architectural Technology

Kerian, John—Diesel Technology
Kite, Leslie—Library
La Salvia, Louis—Fashion Design
Lahr, Eric—Culinary Arts
Laird, Bill—Architectural Technology
Landeen, Robert—Electronics/Computer Science
Lansu, Helvi—English
Lawson, Allen—Computer Science & Graphics
Lee, Alphonso—Electronics Technology
Lee, Kuen H.—Mathematicsematics
Lehnberg, Carl—Welding Technology
Leindholm, Peter—Electronics
Lichtman, Donna—Director, DSPS
Livingston, Joyce—Chair, Library
Lorin, Jack R.—Philosophy
Luna-Reiger, Jane—Nursing
Lunt, Charles—Plumbing
Luther, John—Drafting Technology
Maccani, Robert A.—English
Mador, Sheldon—Accounting
Maker, Janet—Reading Specialist
Maloy, Hugh M.—Automotive
Marich, Vincent—Fashion Design
Marks, Clarence, Electronic Technology
Marroquin, Manuel A.—Automotive
Martin, Richard T.—Electronics
Mason, Elinor—Librarian
Matzkin, Samuel S.—Drafting Technology
Mc Craken, James—Machine Shop
McRae, Claude—Automotive Servicing
McVay, Charles—Automotive Mechanics
Megowan, Lorraine B—ESL/Theater
Meyer, Genevieve—English
Michelson, Alice—Business
Middleton, Rosemary, Allied Health
Milby, Bob—Plastics Technician
Milby, Lois—Counselor
Milic, Stanley—Drafting Technology
Minier, Charles—Electronics
Minkoff, Miriam—Secretarial Science
Misumi, Donald—Biology
Miyasaki, Jacob—Electronics
Monaco, Fred—Electronics
Montour, Clifford - Business/Accounting
Moore, Hugh—Apprenticeship
Morosi, Bill—Dean Evening Division
Moss, Dorothy—Nursing
Mouradian, Catherine L.—Physical Education
Mundell, Mary—Biology
Munson, Mae—Coor. Cosmetology
Murbach, Louis—Drafting Technology
Murgolo, Vito—Aircraft Mechanics
Murphey, Chrystal—English
Murphy, Margaret - Mathematics
Neal, Elinor—Cosmetology
Nelson, Burton D.—Automotive Technology
Newell, Bruce—Restaurant Management
O'Connor, Charles B.—Printing Technology
Oeffinger, Ralph—Electronics
Oliver, Jack—Ass't Dean DSPS
Owens, Pat—Automotive Technology
Padilla, Phillip—Machine Shop - CNC
Pagano, Marian—Child Development Center
Paige, William—Mathematicsematics
Palacios, Rodrigo, Department Chair—Language Arts/Humanities
Palmer, Ernestine—Counseling
Paris, Nick—Vending Machine Technology
Parker,Wilber—President
Parker, Ron—Cooperative Education/ Apprenticeship
Passarelli, Frances—Fashion Design
Payne, Thomas—Chemical Technology
Pelka, Martin—Athletic Director
Pemberton, Clarence—Electronics/Comp Sci
Peppard, Daniel—Coor. Printing & Lithographic
Pequete, Charles—Building Construction Tech
Perrigue, Clara—Fashion Design
Perry, Earl Dr.—Electronics/Computer Science
Petrella, Gino, Bookbinding
Petrie, Iris—Fashion Design
Petrone, Anthony—Culinary Arts
Porter, Charles—Construction Technology
Powell, Deloris—Counseling
Price, Ralph—Drafting Technology
Rademacher, Donald—English
Ramani, Rajaram—Machine Shop
Ramey, Doris—Librarian
Ramirez, Juan—Cosmetology
Ray, Willa—Cosmetology
Rea, Jeanne—Fashion Design
Reichman, Peggy—Nursing
Reiley, Joyce—Nursing
Rios, Joe P.—Manufacturing Technology
Risinger, Dan—Machine Shop - CNC
Rodriguez, Eloy—Sheet Metal
Roelofs, Richard—Electronics
Roessler, Jack—Metals Technology
Ronquillo, Manuel—Ass't Dean Student Activities
Rosario, Gliceria - Counseling
Rose, Judith—English
Roth, Bill—Automotive Technology
Royal, Rosemary—Student Services
Saca, Manuel—Carpentry
Saito, Yasuo—Accounting
Sandoval, Philip Jr.—Printing
Sapos, Carol - Fashion Design
Schlesinger, David—Automotive
Schroeder, James—Commercial Arts
Schubert, Donald D.—Culinary Arts
Scott, Jane—Physical Education
Scully, Frances—Fashion Design
Seitz, John—Electrical, Construction Maintenance
Seklemian, Haig—Chemistry
Serrato, Rudy - Automotive Technology
Shapiro, Heschel—Mathematicsematics
Shaw, Walter—Coor. Registration
Sherer, Richard—Business Adm./Math
Shreve, Lois—Nursing
Shurgot, Margaret—Nursing & Hlth Occup
Silvera, Susan, Professor—Computer Science
Simonds, Harry—Apprenticeship
Simpson, Helen—Business
Sirotnik, Lou—Drafting Technology
Smith, Gladys—Nursing
Smith, Phil—Counseling
Spillman, Nancy—Economics
Squillante, Nancy—Counseling
Starr, Art—Commercial Art
Steele, Barbara—Cosmetology
Steiner, Emma—Child Development
Stevens, Thomas L.—President
Suhr, Tong—Journalism
Szymanski, Gary - Art
Tabakian, Paul—Chemistry
Takusagawa, Hiroshi—Air Conditioning
Tang, May—English
Tayloe, Ralph—Dean Academic Affairs
Taylor, Annette—Fashion Design
Taylor, Melvin - Real Estate
Taylor, Richard—Drafting Technology
Taylor, Walter Jr.—Electronics
Tenckhoff, Frank J.—Drafting Technology
Teves, Rita—Psychology
Theile, Carl—Political Science
Thomas, William Dr.—English
Thompson, Deborah - Professional Baking
Tom, William—Physical Education
Tomberlin, Hilda—Dean, Career & Technical Education
Topek, Bob—Graphic Arts
Torii, Frank—Automotive
Tortarola, Angelo—Printing-Letterpress
Tripp, Constance—Nursing
Troost, William Dr.—Media/Library
Upthegrove, Campbell—History
Veley, Victor—Dean Academic Affairs
Viaes, Manuel—Cosmetology
Vreeland Richard—Ass't Dean Instruction
Wainwright, Frank—Dean Academic Affairs
Wakefield, William—Welding
Walker, Marian—Culinary Arts
Wallace, Paul—Aircraft Trades
Weingartner, John J.—Welding Gas & Electric
Weingourt, Dr. Rita - Nursing
Williams, Doris—Nursing
Wilson, Patricia—Fashion Design
Winston, Willa—Nursing
Wirt, Sheila M.—Fashion Design
Woo, George—Carpentry
Wood, John—Metals Technology
Woodward, John—Drafting Technology
Wright, Jim—Art
Yamabe, Jack—Automotive Technology
Yoshino, Stanley—Commercial Art
Zabriskie, Ronald—Plumbing
Zinn, Adrienne—Fashion Merchandising

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Notes

Student Parking Guidelines

You are responsible for knowing LATTC parking rules and regulations. This information is intended to provide students with basic guidelines on parking at the college. The complete text of the college's parking rules and regulations is printed in the College Catalog and may also be obtained from the Sheriff's Department, CY-150, the Administrative Services Office, or the College Website: (lattc.edu).

- Student parking regulations are enforced from the first day of classes each semester through final examinations. A student parking permit is valid for the current academic term only and must be displayed at all times a vehicle is parked on college property. Saturday and Sunday parking permit use is enforced in the same manner as weekdays.
- Parking permits are made of removable Mylar and should be affixed to the inside rear window, (lower right side, facing outward.) Vehicles displaying a permit which is expired, altered, reported lost or stolen, or not completely visible are subject to a citation.
- A valid college parking permit and a DMV placard must be displayed on any vehicle parked in a designated handicapped stall. Students with a verified disability should go to the Disabled Students Program and Services Office, in Mariposa Hall (MA 100), to arrange for an accommodation.
- Regulations governing handicapped parking, red curbs, no-parking zones, fire lanes, special permit areas, and areas that have parking time limitations are enforced 24 hours a day, including weekends and holidays. Failure to display a parking permit or parking in an area not authorized for student parking, including metered spaces, will result in the Issuance of a citation. Illegally parked vehicles may be towed away at owner's expense.
- All traffic laws must be obeyed. Vehicles must be parked in stalls within the designated lines. The college speed limit is 7 miles per hour.
- The purchase of a parking permit does not guarantee a parking space; It is only a license to park one vehicle with a Student Parking Permit for all time periods in any of the designated areas specified below:

  Preferred Student Parking ($27.00 for Fall & Spring Semesters and includes $7.00 ASO membership) – as available:

  - Olive Street Parking Facility- Entrance from Olive St., between Washington Blvd. and 23rd St.
  - Roof Lot (OH-Bldg) - Entrance from Flower St. (Southbound ONLY), between 22 St. and 23rd St.

  General Student Parking ($20.00 for Fall & Spring Semesters):

  - 18th and Grand Lot – Entrance: Northbound from Olive St. or westbound from 17th St.
  - Glory Church – Entrance: Southbound from Grand Ave.

  General Student Parking ($10.00 for Summer & Winter Sessions):

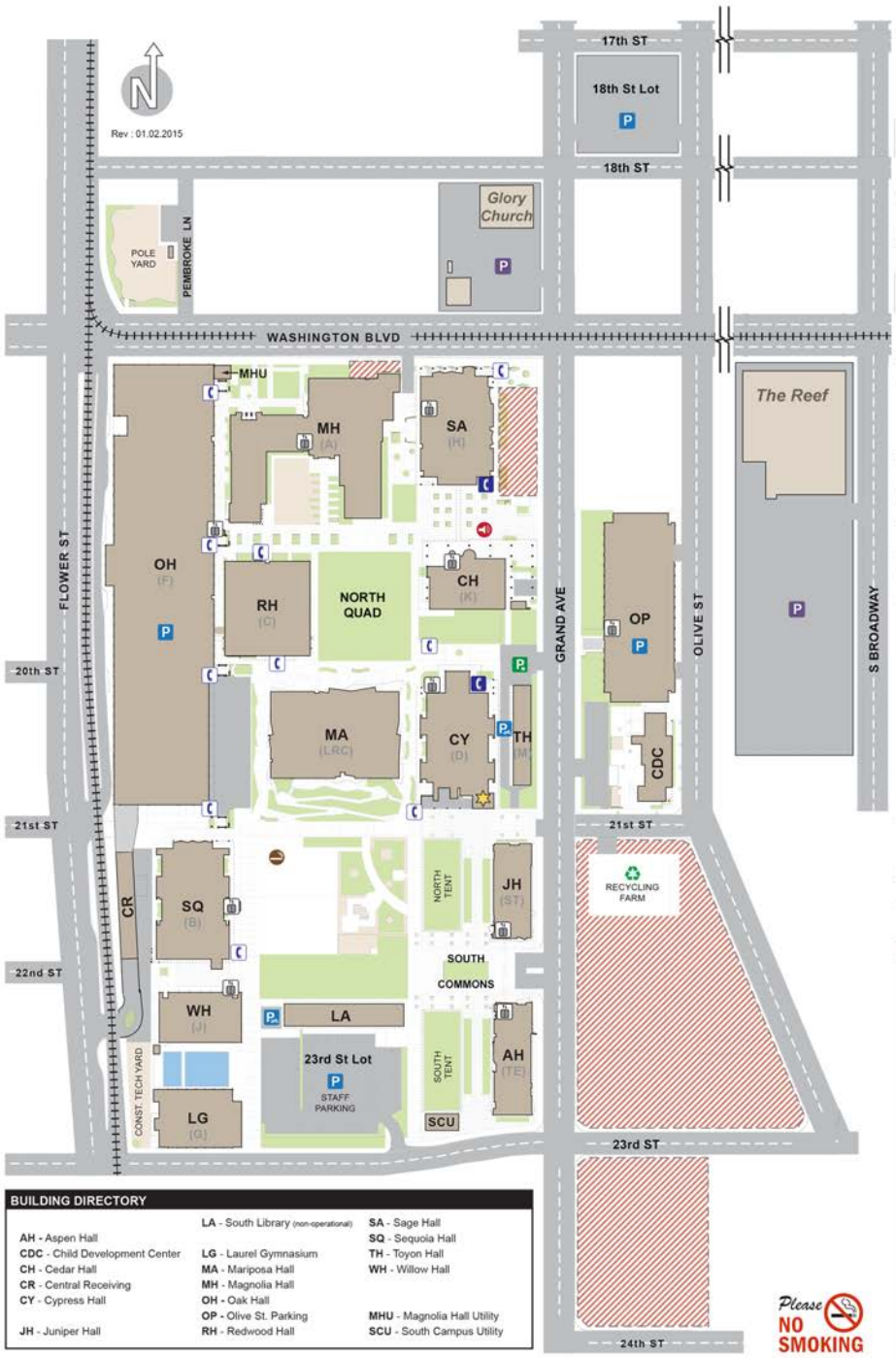
  - For Summer & Winter Sessions, $10.00 General Student Parking Permits are accepted in Preferred Student Parking areas above.
- **OVERFLOW PARKING**: LATTC makes every effort to provide adequate parking for all students, staff and visitors. However, since parking becomes extremely impacted during the first two weeks of the Fall and Spring semesters, we have made arrangements with our neighbor and community partner, The Reef, at 1933 S. Broadway, to provide overflow parking for LATTC. The lot is accessible from South Broadway St., just south of Washington Bl., and will be available to students and staff with a valid parking permit for the first two weeks of the Fall and Spring semesters ONLY.
- LATTC assumes no responsibility or liability for your car or its contents while parked in the lots.
- Escort service is provided upon availability for students with physical or other limitations. Call the College Sheriff's Department and an officer will be dispatched to your location.
- Inquiries regarding the college's parking permit program should be directed to the offices listed below during normal business hours. College Sheriff's Department personnel are, however, on duty 24 hours a day, seven days a week to assist with permit use and enforcement issues.
- Parking Rules, Regulations, Permit Use and Enforcement: College Sheriff's Department, CY-150, (213) 763-3600. Individuals who believe a citation was issued to them in error must appeal it immediately by completing an Administrative Review form (available at the Sheriff's Department, CY-150) or LATTC Sheriff's Department website under Parking Citations and Appeals). Appeals must be mailed to: Los Angeles Trade Technical College, c/o Parking Citation Service Center, P.O. Box 11923, Santa Ana, CA 92711. Failure to immediately pay or appeal a citation may result in substantial penalties and a Department of Motor Vehicle (DMV) hold on your vehicle registration.
- Permit Sales, Refunds, and Exchanges: Business Office, JH-113, (213) 763-7225. For further information regarding parking policy: Administrative Services, JH-532, (213) 763-7040. The parking information shown above is subject to change without notice.

12. Campus Map

400 West Washington Blvd
Los Angeles, California
90015-4181
www.lattc.edu

LOS ANGELES TRADE-TECH
LATTC
A Community College

Phone: (213) 763-7000
TDD: (213) 763-5375
Fax: (213) 763-5393



AH – ASPEN HALL
(Formerly TE Building)
Behavioral/Social Sciences/Child Development
English/English as a Second Language
Mathematics

CDC BUILDING
Child Development Center

CH – CEDAR HALL
(Formerly K Building)
Bookstore
Business
Fitness Center
Sciences

CY – CYPRESS HALL
(Formerly D Building)
College Sheriff
Design and Media Arts
Physical Plant Office

JH – JUNIPER HALL
(Formerly ST Building)
Academic Affairs
Administrative Services
Admissions & Records
Business Office
CalWorks/GAIN
Career Center
Compliance Office
Counseling Center
EOPS/CARE
Financial Aid
Human Resources
Information Center
International Student Program
President's Office
Public Relations
PUENTE
Student Services
UMOJA
University Transfer Center
Workforce & Econ. Dev.

LG – LAUREL GYMNASIUM
(Formerly G Building)
Gymnasium

MA – MARIPOSA HALL
Academic Connections
Academic Technology
Assessment
Bridges to Success Center
Copy/Mail Center
Disabled Student Programs & Services (DSPS)
Distance Education
Info Tech (IT)
Labor Center
Learning Skills and Noncredit Library
Library
Office of Student Life
Open Computer Labs
Staff Lounge
Student Health Center
Tutoring Center
Veteran Student Center

MH - MAGNOLIA HALL
(Formerly A Building)
Cosmetology
Nursing Program

OH – OAK HALL
(Formerly F Building)
Language Arts/Humanities
Machine Shop (CNC)
Advanced Transportation & Manufacturing
Welding

RH - REDWOOD HALL
(Formerly C Building)
Architectural Technology
Associated Student Organization (ASO)
Worksource Center

SA – SAGE HALL
(Formerly H Building)
Cafeteria
Culinary Arts
Early College Academy
Garden Room

SQ - SEQUOIA HALL
(Formerly B Building)
Apprenticeship
Construction Maintenance & Utilities

WH – WILLOW HALL
(Formerly J Building)
Athletics
Health & Exercise Science (Kinesiology)

LEGEND
- Sherriff's Office
- Construction Area
- Designated Smoking Area
- Designated Free-Speech Area
- Public Pay Phone
- Emergency Blue Phone
- Elevator
- Overflow Parking (first 2 weeks of semester)
- Student Parking (unless otherwise noted)
- Motorcycle Parking
- Sherriff Parking

BUILDING DIRECTORY

AH - Aspen Hall
CDC - Child Development Center
CH - Cedar Hall
CR - Central Receiving
CY - Cypress Hall
JH - Juniper Hall
LA - South Library (non-operational)
LG - Laurel Gymnasium
MA - Mariposa Hall
MH - Magnolia Hall
OH - Oak Hall
OP - Olive St. Parking
RH - Redwood Hall
SA - Sage Hall
SQ - Sequoia Hall
TH - Toyon Hall
WH - Willow Hall
MHU - Magnolia Hall Utility
SCU - South Campus Utility

On Campus? Scan QR Below

or visit **map.lattc.edu** and tap the location icon



Los Angeles Trade-Technical College

400 West Washington Blvd., Los Angeles, CA 90015
Phone: (213) 763-7000 • Fax (213) 763-5393

Material available in alternate media format upon request.
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