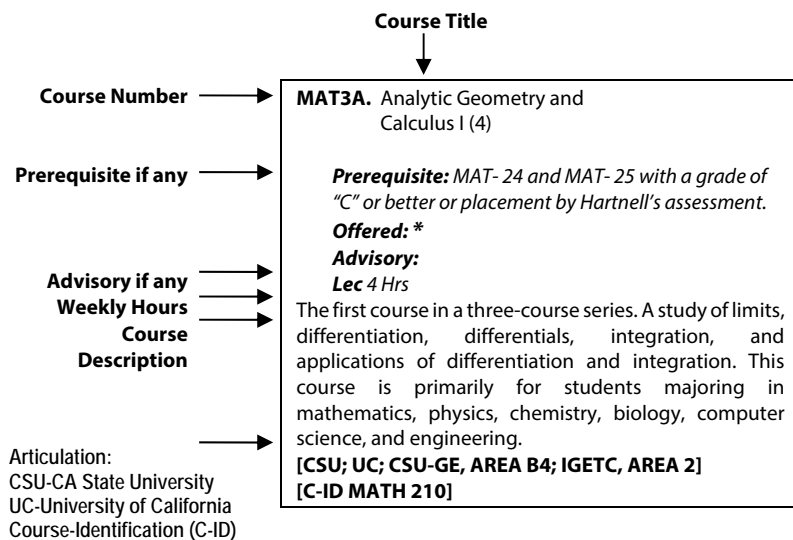


COURSE LISTINGS

HOW TO READ THIS CATALOG



Units

Course Grading

- If no grading system is specified for a course, a letter grade will be issued.
- If Pass/No Pass only is specified, a P or NP will be issued.
- If Pass/No Pass option is indicated, a letter grade will be issued unless the student files a petition to complete the course with the P/NP option.
- No grades will be issued for non-credit courses.

***Offered: Fall, Spring, Summer, Fall-even, Spring-even, Fall-odd, Spring-odd annotations indicate the semester(s) during which Hartnell College plans to offer this course. If a course has no offering annotation it indicates the course is under review and course offerings will be limited.**

Many factors influence course offerings, including state wide budgetary and policy making decisions, industry trends, and other unpredictable factors. We are providing semesters and years of planned offering to the best of our knowledge in support of educational planning, access, success and completion. Such annotations should not be seen as guarantees of course offerings sequences. Please check the schedule of classes for any given semester to confirm and finalize schedule planning and readjust education plans as needed.

DE/HYBRID ADVISORY:

Students taking web-based and hybrid courses must have basic computer skills for operating Microsoft Word and e-mail, including sending attachments and files. Students also need access to the Internet and must have adequate hardware and software capabilities. Access to computers is also available at the Hartnell College Library/LRC.

Course Identification Numbering System (C-ID)

The Course Identification Numbering System (C-ID) is a statewide numbering system used for transfer courses that is independent of the actual course numbers assigned. Each C-ID number identifies a lower-division, transferable course commonly articulated between the California community colleges and CSU, and independent colleges/universities. The C-ID number conveys that any course at another college bearing the same C-ID number will be accepted by that institution. In other words the C-ID designation can be used to identify comparable courses at different institutions. Students should check with a counselor to determine how C-ID designated courses fit into their educational plans for transfer.

Students may consult the ASSIST database at www.assist.org for specific information on C-ID course designations and to confirm how each course will be accepted at a particular four-year institution. Counselors can always help them interpret or explain this information.

Each campus retains its own course number prefix and numbers. An example of the C-ID numbering system is Hartnell College's English 1A (C-ID ENGL 100). The number 1A is Hartnell College's number; C-ID ENGL 100 is the designation that is used to number the equivalent articulated course in the C-ID numbering system. Many of the C-ID numbered courses will be found in the Associate Degree for Transfer (AA-T or AS-T) degrees.

C-ID Courses at Hartnell

ABT-49	Introduction to Agriculture	C-ID AG AB 104	BIO-3	General Botany	C-ID BIOL 155
ABT-52	Sales and Service in Agribusiness	C-ID AG AB 112	BIO-5	Human Anatomy	C-ID BIOL 110B
ABT-53	Agribusiness Economics	C-ID AG AB 124	BIO-6+	Introductory to Physiology + Physiology Laboratory	C-ID BIOL 120B
ABT-57	Agriculture Computer Applications	C-ID AG AB 108	BIO-6L		
ABT-90	Soil Science	C-ID AG PS 128L	BUS-1A	Financial Accounting	C-ID ACCT 110
ABT-92	Plant Science	C-ID AG PS 106L	BUS-1B	Managerial Accounting	C-ID ACCT 120
ADJ-1	Introduction to Administration of Justice	C-ID AJ 110	BUS-18	Legal Environment of Business	C-ID BUS 120
ADJ-2	Community Relations and the Justice System	C-ID AJ 160	BUS-32	Introduction to Business	C-ID BUS 110
ADJ-3	Concepts of Criminal Law	C-ID AJ 120	BUS-43	Business Information Systems	C-ID BUS 140
ADJ-4	Criminal Evidence	C-ID AJ 124	CHM-1A	General Chemistry I	C-ID CHEM 110
ADJ-5	Criminal Court Process	C-ID AJ 122	CHM-1A +	General Chemistry I	C-ID CHEM 120S
ADJ-8	Criminal Investigation	C-ID AJ 140	CHM-1B	General Chemistry II	
ADJ-10	Juvenile Procedures	C-ID AJ 220	CHM-12A	Organic Chemistry I	C-ID CHEM 150
ADJ-50	Introduction to Corrections	C-ID AJ 200	CHM-12A +	Organic Chemistry I	C-ID CHEM 160S
ADJ-51	Control and Supervision in Corrections	C-ID SOCI 160	CHM-12B	Organic Chemistry II	
ADJ-76	Introduction to Forensics	C-ID AJ 150	CHM-22	The Science of Chemistry	C-ID CHEM 101
ANT-1	Physical Anthropology	C-ID ANTH 110	COM-1	Introduction to Public Speaking	C-ID COMM 110
ANT-2	Introduction to Cultural Anthropology	C-ID ANTH 120	COM-2	Argumentation and Debate	C-ID COMM 120
ART-1A	Art History Survey I	C-ID ARTH 110	COM-3	Survey of Human Communication	C-ID COMM 115
ART-1B	Art History Survey II	C-ID ARTH 120	COM-4	Intercultural Communication	C-ID COMM 150
ART-3	Drawing and Composition	C-ID ARTS 110	COM-6	Small Group Communication	C-ID COMM 140
ART-10	Art Appreciation	C-ID ARTH 100	COM-7	Introduction to Persuasion	C-ID COMM 190
ART-12A	Design	C-ID ARTS 100	COM-8	Interpersonal Communication	C-ID COMM 130
ART-13	Three-Dimensional Design	C-ID ARTS 101	COM-9	Oral Interpretation of Literature	C-ID COMM 170
ART-15A	Ceramics A	C-ID ARTS 230	CSS-1	Introduction to Computer Science & Programming Fundamentals	C-ID COMP 112
ART-72	Introduction to Digital Arts	C-ID ARTS 250	CSS-1	Introduction to Computer Science & Programming Fundamentals	C-ID ITIS 130
BIO-1	Fundamental Biological Concepts	C-ID BIOL 190	CSS-2A	Object Oriented Programming	C-ID COMP 122
BIO-1 + BIO-2 + BIO-3	Fundamental Biological Concepts + General Zoology + General Botany	C-ID BIOL 135S	CSS-2A +	Introduction to Programming Concepts and Methodologies for Engineers	C-ID ENGR 120
BIO-2 + BIO-3	General Zoology + General Botany	C-ID BIOL 140	EGN-7L		

CSS-2B	Data Structures and Algorithms	C-ID COMP 132
CSS-3	Computer Architecture and Assembly Language Programming	C-ID COMP 142
CSS-4	Programming for Scientists and Engineers	C-ID ENGR 120
CSS-7	Discrete Structures	C-ID COMP 152
CSS-44	Computer Science & Information Systems	C-ID ITIS 120
CSS-120A	Introduction to Networks	C-ID ITIS 120
CSS-124	Systems and Network Administration	C-ID ITIS 155
ECE-1	Principles and Practices of Teaching Young Children	C-ID ECE 120
ECE-2	Child, Family and Community Relations	C-ID CDEV 110
ECE-4	Introduction to Curriculum	C-ID ECE 130
ECE-10	Observation and Assessment	C-ID ECE 200
ECE-12A	Preschool Theory and Practicum	C-ID ECE 210
ECE-19	Nutrition in the Child Care Setting	C-ID ECE 220
ECE-53	Teaching in a Diverse Society	C-ID ECE 230
ECO-1	Principles of Macroeconomics	C-ID ECON 202
ECO-5	Principles of Microeconomics	C-ID ECON 201
EDU-1	Multicultural Perspective of Education	C-ID EDUC 200
EGN-1R	Introduction to Engineering	C-ID ENGR 110
EGN-2	Engineering Graphics and Design	C-ID ENGR 150
EGN-4	Materials Science and Engineering	C-ID ENGR 140B
EGN-5	Programming and Problem Solving in MATLAB	C-ID ENGR 220
EGN-6	Circuit Analysis	C-ID ENGR 260
EGN-6L	Circuit Analysis	C-ID ENGR 260L
EGN-7	Introduction to Programming Concepts and Methodologies for Engineers	C-ID ENGR 120
EGN-8	Statics	C-ID ENGR 130
EGN-11	Surveying	C-ID ENGR 180
ENG-1A	College Composition and Reading	C-ID ENGL 100
ENG-1AX	College Composition	C-ID ENG 100
ENG-1B	College Literature and Composition	C-ID ENGL 120
ENG-2	Critical Thinking and Writing	C-ID ENGL 105
ENG-31	Beginning Creative Writing	C-ID ENGL 200
ENG-44A	World Literature I	C-ID ENGL 140
ENG-44B	World Literature II	C-ID ENGL 145
ENG-46A	Survey of British Literature I	C-ID ENGL 160
ENG-46B	Survey of British Literature II	C-ID ENGL 165
ENG-47A	Survey of American Literature I	C-ID ENGL 130
ENG-47B	Survey of American Literature II	C-ID ENGL 135
ENG-48	Introduction to Children's Literature	C-ID ENGL 180
GEG-1	Geography Physical Elements	C-ID GEOG 110
GEG-10	Geography and World Affairs: A Regional Approach	C-ID GEOG 125
GEL-1	Physical Geology	C-ID GEOL 101
GEL-2	Introduction to Geology	C-ID GEOL 100
GEL-6	History of the Earth	C-ID GEOL 111
GEL-25	Environmental Geology	C-ID GEOL 130
GEL-36	California Geology	C-ID GEOL 200
HED-2	Individual Health	C-ID PHS 100

HED-55	Health Education-Advanced First Aid	C-ID KIN 101
HES-1	Introduction to Public Health	C-ID PHS 101
HES-2	Health and Social Justice	C-ID PHS 102
HES-3	Drugs, Health, and Society	C-ID PHS 103
HIS-4A	Western Civilization A	C-ID HIST 170
HIS-4B	Western Civilization B	C-ID HIST 180
HIS-5A	World History A	C-ID HIST 150
HIS-5B	World History B	C-ID HIST 160
HIS-17A	United States History A	C-ID HIST 130
HIS-17B	United States History B	C-ID HIST 140
LAW-41	Introduction to Law and Society	C-ID LPPS 110
MAT-2	Calculus for Managerial, Life and Social Sciences	C-ID MATH 140
MAT-3A	Analytic Geometry and Calculus I	C-ID MATH 210
MAT-3B	Analytic Geometry and Calculus II	C-ID MATH 220
MAT-3A + MAT-3B	Analytic Geometry and Calculus I + Analytic Geometry and Calculus II	C-ID MATH 900S
MAT-3C	Analytic Geometry and Calculus III	C-ID MATH 230
MAT-4	Linear Algebra	C-ID MATH 250
MAT-5	Different Equations	C-ID MATH 240
MAT-7	Discrete Math	C-ID MATH 160
MAT-12	Number Systems	C-ID MATH 120
MAT-13	Elementary Statistics	C-ID MATH 110
MAT-16	Finite Mathematics	C-ID MATH 130
MAT-27	Precalculus & Trigonometry	C-ID MATH 955
MET-1	Weather and Climate	C-ID GEOG 130
MUS-1A	Music Appreciation—Historical Perspective	C-ID MUS 100
MUS-1B	Music Appreciation—Genre Perspective	C-ID MUS 100
MUS-2	Music Fundamentals	C-ID MUS 110
MUS-10	Applied Music—Voice	C-ID MUS 160
MUS-11	Applied Music—Instrumental	C-ID MUS 160
MUS-20	Hartnell College Choir	C-ID MUS 180
MUS-21	Hartnell Chamber Signers	C-ID MUS 180
MUS-23.1	Renaissance/Baroque Emphasis	C-ID MUS 180
MUS-23.2	Hartnell Chorale-Classic/Romantic Emphasis	C-ID MUS 180
MUS-23.3	Hartnell Chorale-20 th Century Emphasis	C-ID MUS 180
MUS-23.4	Hartnell Chorale-20 th Century "Pops" Emphasis	C-ID MUS 180
MUS-23.5	Hartnell Chorale-21 st Century Emphasis	C-ID MUS 180
MUS-24	Estudiantina Hartnell	C-ID MUS 180
MUS-25	Hartnell College Wind Ensemble	C-ID MUS 180
MUS-26	Jazz Ensemble	C-ID MUS 180
MUS-29.1	Symphonic Band-18 th Century Emphasis	C-ID MUS 180
MUS-29.2	Symphonic Band-19 th Century Emphasis	C-ID MUS 180
MUS-29.3	Symphonic Band-20 th Century Emphasis	C-ID MUS 180
MUS-29.4	Symphonic Band-20 th Century "Pops" Emphasis	C-ID MUS 180
MUS-29.5	Symphonic Band-21 st Century Emphasis	C-ID MUS 180

MUS-34.1	Symphony Orchestra-18 th Century Emphasis	C-ID MUS 180
MUS-34.2	Symphony Orchestra-19 th Century Emphasis	C-ID MUS 180
MUS-34.3	Symphony Orchestra-20 th Century Emphasis	C-ID MUS 180
MUS-34.4	Symphony Orchestra-20 th Century "POPS"	C-ID MUS 180
MUS-34.5	Symphony Orchestra-21 st Century Emphasis	C-ID MUS 180
MUS-46	Music Theory and Musicianship	C-ID MUS 120
MUS-46	Music Theory and Musicianship	C-ID MUS 125
MUS-47	Music Theory and Musicianship I	C-ID MUS 130
MUS-47	Music Theory and Musicianship I	C-ID MUS 135
MUS-48	Music Theory and Musicianship II	C-ID MUS 140
MUS-48	Music Theory and Musicianship II	C-ID MUS 145
MUS-49	Music Theory and Musicianship III	C-ID MUS 150
MUS-49	Music Theory and Musicianship III	C-ID MUS 155
MUS-50A	Harmony I	C-ID MUS 120
MUS-51A	Musicianship I	C-ID MUS 125
MUS-52B	Harmony IV	C-ID MUS 150
MUS-53B	Musicianship IV	C-ID MUS 155
PETH-1	Introduction to Kinesiology	C-ID KIN 100
PHL-2	Introduction to Philosophy	C-ID PHIL 100
PHL-10	Ethics	C-ID PHIL 120
PHL-15	Logic and Critical Thinking	C-ID PHIL 110
PHY-2A + PHY-2B	College Physics I + College Physics II	C-ID PHYS 100S
PHY-2A	College Physics I	C-ID PHYS 105
PHY-2B	College Physics II	C-ID PHYS 110
PHY-4A	General Physics/Mechanics	C-ID PHYS 205
PHY-4B	General Physics/Electricity and Magnetism	C-ID PHYS 210
PHY-4C	General Physics/Waves, Heat, Light and Modern Physics	C-ID PHYS 215
PHY-32	Survey of Chemistry and Physics	C-ID PHYS 140
POL-1	American Political Institutions	C-ID POLS 110
POL-2	Contemporary Governments Abroad	C-ID POLS 130
POL-3	Introduction to International Relations	C-ID POLS 140
PSY-2	General Psychology	C-ID PSY 110
PSY-6	Social Psychology	C-ID PSY 170
PSY-8	Introduction to Research Methods in Psychology	C-ID PSY 200
PSY-9	Introduction to Research Methods in Psychology (with Lab)	C-ID PSY 205B
PSY-10	Introduction to Biological Psychology	C-ID PSY 150
PSY-15	Introduction to Human Sexuality	C-ID PSY 130
PSY-22	Abnormal Psychology	C-ID PSY 120
PSY-25	Developmental Psychology	C-ID PSY 180
PSY-33	Personal and Social Adjustment	C-ID PSY 115
SJS-20	Introduction to Social Justice	C-ID SJS 110
SJS-22	Introduction to Women's Studies	C-ID SJS 120
SOC-1	Introduction to Sociology	C-ID SOCI 110

SOC-5	Introduction to Social Problems	C-ID SOCI 115
SOC-41	Marriage and Family	C-ID SOCI 130
SOC-42	The Sociology of Minority Relations	C-ID SOCI 150
SOC-20	Sociology of Gender and Society	C-ID SOCI 140
SPA-1	Elementary Spanish 1	C-ID SPAN 100
SPA-1X	Elementary Spanish 1 for Chicano Students	C-ID SPAN 100
SPA-2	Elementary Spanish 2	C-ID SPAN 110
SPA-2S	Elementary Spanish 2 for Chicano Students	C-ID SPAN 110
SPA-2X	Elementary Spanish 2 for Chicano Students	C-ID SPAN 110
SPA-3	Intermediate Spanish 1	C-ID SPAN 200
SPA-3S	Intermediate Spanish 1 for Spanish Speakers	C-ID SPAN 220
SPA-4	Intermediate Spanish 2	C-ID SPAN 210
SPA-4S	Intermediate Spanish 2 for Spanish Speakers	C-ID SPAN 230
TAC-1	Introduction to Theatre	C-ID THTR 111
TAC-2	Script Analysis	C-ID THTR 114
TAC-3	History of the Theatre	C-ID THTR 113
TAC-10	Beginning Acting	C-ID THTR 151
TAC-11	Acting II	C-ID THTR 152
TAC-20	Introduction to Ensemble Play Production	C-ID THTR 191
TAC-21	Introduction to Modern Play Production	C-ID THTR 191
TAC-22	Introduction to Musical Theatre Production	C-ID THTR 191
TAC-24	Introduction to World Theatre Production	C-ID THTR 191
TAC-25	Introduction to Revival Play Production	C-ID THTR 191
TAC-26	Stage Scenic Construction	C-ID THTR 192
TAC-27	Scenic Painting, Properties, and Technical Production Techniques	C-ID THTR 192
TAC-28	Makeup/Hair Techniques for the Stage	C-ID THTR 192
TAC-29	Stage Lighting and Sound	C-ID THTR 192
TAC-30	Fundamentals of Theatre Design	C-ID THTR 172
TAC-40	Stage Costuming Practicum	C-ID THTR 192
TAC-41	Fundamentals of Costume Design	C-ID THTR 174
TAC-56	Introduction to Media Aesthetics and Contemporary Cinematic Arts	C-ID FTVE 105

ADDICTION STUDIES

AOD-1. Fundamentals of Chemical Dependency (3)*Fall/Spring**Lec 54 Hrs*

This course will introduce historical and sociological perspectives on the use, abuse and social control of psychoactive drugs. Students will receive overviews of the bio-psycho-social nature of the addiction; the impact of addiction on children, families and society; contemporary treatment and prevention approaches; and the addiction counseling profession. Designed for students interested in obtaining CAADAC certification.

[CSU]**AOD-2. Pharmacology and Physiology of Alcohol and Other Drugs (3)***Fall Only**Lec 54 Hrs*

An in-depth look at the physiologic action and effects of alcohol and other psychoactive drugs on the body and behavior. Emphasis is placed on the pharmacologic and neurobiological effects and medical consequences of abuse and addiction. Includes the pharmacologic basis of medications used for various psychiatric disorders as well as treatment considerations for substance abuse and dependency. Designed for students interested in obtaining CAADAC certification.

[CSU]**AOD-3. Introduction to Treatment Planning and Case Management (3)***Fall Only**Lec 54 Hrs*

An introduction to the theory and practice of chemical dependency counseling with special emphasis on treatment planning, implementation and documentation. The core functions of the chemical dependency counselor in the early intervention, assessment and treatment planning phases of recovery counseling will be introduced and developed. The need to interface with others in the medical and mental health community in developing a multi-dimensional approach to treatment will be included. Designed for students interested in obtaining CAADAC certification.

[CSU]**AOD-4. Counseling Diverse Populations (3)***Advisory: AOD-1**Fall Only**Lec 54 Hrs*

A counseling course that introduces the student to special population subgroups in alcohol and drug counseling and the unique helping skills used to support these populations. Particular focus is placed on gender, race, culture, age and sexual orientation as it relates to addiction and recovery.

[CSU]**AOD-5. Legal/Ethical Considerations and Professional Growth (3)***Fall Only**Lec 54 Hrs*

Explores the legal, ethical, professional and personal issues involved in the treatment of chemical dependency. Emphasis is placed on professional responsibility and patient rights as well as issues of the work place and professional growth.

[CSU]**AOD-6. Prevention, Education and Relapse Prevention (3)***Spring Only**Lec 54 Hrs*

Conceptual frameworks, major research, epidemiology, environmental risk factors and the effectiveness of various prevention strategies will be examined. In addition, client education strategies used in the treatment and relapse prevention phases of chemical dependency will be highlighted.

[CSU]**AOD-9. Co-Occurring Disorders (3)***Corequisite: AOD-1**Advisory: Eligibility for ENG-1A; Completion of AOD-2 through AOD-5.**Spring Only**Lec 54 Hrs*

An introduction to the treatment needs of those who have one or more psychiatric disorders in combination with a chemical dependency disorder. Focus is placed on identification, assessment, current treatment approaches, medication, referral procedures, and interface with the professional mental health community.

[CSU]**AOD-10. Chemical Dependency Practicum Seminar (3)***Prerequisite: AOD-2, AOD-3, AOD-4, AOD-5, AOD-6, AOD-9 or AOD-11 with a grade of "C" or better.**Corequisite: AOD-99**Lec 54 Hrs*

Designed for students in their final semester of the AOD curriculum, this course is designed to support students as they complete the practicum/work experience requirements of the program. Emphasis is placed on developing the skills and abilities needed to work as a chemical dependency counselor.

[CSU]

AOD-11. Individual, Group and Family Counseling (3)**Spring Only****Lec 54 Hrs**

An introduction to the basic skills and techniques of counseling for chemical dependency counselors. This course describes characteristics of an effective counselor, explores several theoretical models of counseling, and assists the individual to develop skills in active listening, building trust, reflecting feelings and content, and using motivational interviewing techniques. Stages of therapy and life span issues will receive special attention. A focus of family dynamics and group processes as they relate to chemical dependency will also be examined. The dynamics of chemical dependency within family systems will be explored an intervention designed to assist family members to understand and cope with chemical dependency will be examined. In addition, group processes and dynamics will be examined with an emphasis on developing skills for group leadership

[CSU]**AOD-99. Practicum in Chemical Dependency (4)****Prerequisite:** AOD-1, AOD-2, AOD-3, AOD-4, AOD-5, AOD-6, AOD-9, AOD-11

Other: Students will need to meet individual screening requirements of work-site for drug testing, finger-print analysis, TB testing and/or other site requirements. Students will need to register with one of the certifying agencies well in advance of placement.

Pass/No Pass Only**Lab 255-300 Hrs**

Designed for students in their last semester of the AOD program, this course provides students with a hands-on learning experience via a directed field study. Emphasis is placed on enabling the student to experience and perform the work of a chemical dependency counselor. Students must complete at least 255 hours of volunteer experience or 300 hours of paid work experience in an approved facility to meet unit requirements and CAADAC/CCBADC accreditation standards for practicum experience. Instructor will facilitate internship/job placement and development of individualized goals.

[CSU]

ADMINISTRATION OF JUSTICE

ADJ-1. Introduction to Administration of Justice (3)**Pass/No Pass Option****Fall/Spring****Lec 54 Hrs**

Provides an overview of the American criminal justice system and the various subsystems. Focuses on the roles and role expectations of criminal justice agencies in their interrelationships in society and emphasizes the concepts of criminal law and its effect on policing, crime causation, the Constitution and its effect on law enforcement, punishment and rehabilitation. Also discusses ethics, education and training for professionalism in the social system.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]**[C-ID AJ 110]****ADJ-2. Community Relations and the Justice System (3)****Pass/No Pass Option****Fall/Spring****Lec 54 Hrs**

A theoretical and conceptual overview of multicultural issues, including those relating to ethnicity, race relations, gender, age and sexual preference. The course focuses on cultural/ethnic groups in California and their relationship with law enforcement and justice administration, including courts and corrections. Explores the interaction of the criminal justice agents and the community; theoretical and conceptual overview of multicultural issues affecting human relations; effects of prejudice, bias, and discrimination; awareness of individual and cultural differences affecting human interaction and peacekeeping strategies in a diverse society.

[CSU; UC] [C-ID AJ 160]**ADJ-3. Concepts of Criminal Law (3)****Pass/No Pass Option****Fall/Spring****Lec 54 Hrs**

An introduction to the legal system, the differences between civil and criminal law, the sources of law, and the court system. The course focus will be classifying, defining, and identifying crimes. Also explores defenses to crimes, and parties to crimes.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]**[C-ID AJ 120]**

COURSE LISTINGS

ADJ-4. Criminal Evidence (3)

Pass/No Pass Option

Fall/Spring

Lec 54 Hrs

An introduction to the legal system, the sources of law, the criminal court system, and the trial process. The course focuses in particular on the classifications and rules of evidence. Includes a thorough overview of legal issues in criminal evidence such as admissibility, constitutional protections including the Fourth Amendment, and the burden of proof. Also covered are general considerations in evidence such as inferences and presumptions, privilege, judicial notice, expert testimony, scientific, and demonstrative evidence.

[CSU] [C-ID AJ 124]

ADJ-5. Criminal Court Process (3)

Pass/No Pass Option

Fall/Spring

Lec 54 Hrs

An introduction to the sources of law, the legal system, the criminal court trial process, the purposes of punishment, and participants in the criminal justice system. An in-depth analysis of the Constitution and its relationship to criminal procedure. Explores the laws of search, arrest, interrogation, arraignment, preliminary hearing, motion practice, trial procedure, sentencing, and post-conviction remedies.

[CSU] [C-ID AJ 122]

ADJ-8. Criminal Investigation (3)

Pass/No Pass Option

Fall/Spring

Lec 54 Hrs

A course designed to teach the fundamentals of investigation; crime scene preservation of evidence; scientific aids; modus operandi; sources of information, interviews and interrogation; ethical challenges; surveillance; follow-up and case preparation; constitutional issues; and the role of the investigator in the trial process.

[CSU] [C-ID AJ 140]

ADJ-10. Juvenile Procedures (3)

Pass/No Pass Option

Fall/Spring

Lec 54 Hrs

Discussion of the theories of juvenile delinquency and juvenile justice. Introduction to the functions, organization and jurisdiction of juvenile agencies. Study of juvenile crime, laws and social issues relating to youthful offenders. Examination of child abuse, domestic violence and gang membership. Examination of the Law Enforcement responses to juvenile issues.

[CSU] [C-ID AJ 220]

ADJ-11. Law Enforcement Report Writing (3)

Pass/No Pass Option

Fall/Spring

Lec 54 Hrs

An introductory course emphasizing the practical aspects of organizing and preparing law enforcement written reports.

[CSU]

ADJ-21A. Narcotics and Dangerous Drugs (3)

Pass/No Pass Option

Fall/Spring

Lec 54 Hrs

History, definition, identification, characteristics and treatment strategies of legal and illegal drugs and the enforcement of laws relating to them.

[CSU]

ADJ-25. Introduction to Paralegal/Legal Assistantship (3)

Pass/No Pass Option

Fall Only

Lec 54 Hrs

Provides an overview of the legal assistant profession, and a general introduction to the legal environment and foundational skills necessary to succeed in legal specialty courses. Course includes a perspective of the role of the legal assistant in the modern law office, beginning legal research and analysis, issues related to our legal system and the courts, law office administration, and ethical considerations.

[CSU]

ADJ-30. Sexual Assault Investigation (3)

Pass/No Pass Option

Fall/Spring

Lec 54 Hrs

An introduction to the legal system and in-depth study of the institutional response to victims of sexual assault. Covers the elements of the most commonly encountered sex crimes, current and recommended investigative techniques, community and institutional response to victims of sex crimes, and methods of improving services with a focus on the needs of the victim.

[CSU]

ADJ-33. Constitutional Law for Criminal Justice Professionals (3)

Pass/No Pass Option
Spring Only
Lec 54 Hrs

Focuses on the United States Constitution and its relevance to criminal justice issues. Beginning with an overview of our legal system and some instruction in basic legal research, the course examines constitutional amendments influencing the criminal justice system such as freedom of speech and the press, gun control, constitutional search and seizure, the exclusionary rule, due process of law and confessions, the right to counsel and a fair trial, bail, fines, and punishment. Students will also appraise the impact of constitutional principles in the fields of law enforcement, corrections, and the practice of law.

[CSU]

ADJ-34. Civil Litigation (3)

Pass/No Pass Option
Spring Only
Lec 54 Hrs

Students will gain a fundamental understanding of how to prepare a civil case for trial. Topics include California procedural statutes and court rules governing civil litigation, the attorney-client relationship, court organization, the steps in case preparation, and the post-litigation concerns. Students will practice client interviewing, drafting of pleadings and motions, deposition summaries, evidence gathering and discovery procedures.

[CSU]

ADJ-36. Legal Research and Writing (3)

Pass/No Pass Option
Lec 54 Hrs

This course provides an overview of the fundamentals of legal research and writing. Topics include online legal research, law library references such as Shepard's Citations, West Digest system and key numbers, American Law Reports, legal periodicals, and annotated state and federal statutes. The course also focuses on the development of written communication skills essential to any law-related correspondence, memoranda, pleadings, motions, and discovery documents.

[CSU]

ADJ-51. Criminology (3)

Pass/No Pass Option
Fall/Spring
Lec 54 Hrs

An examination of the theories of the psychological and social factors underlying crime and criminal behavior, crime statistics, patterns of antisocial behavior, treatment and preventative measure.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]

[C-ID SOCI 160]

ADJ-76. Introduction to Forensics (3.5)

Pass/No Pass Option
Fall/Spring
Lec 54 Hrs; Lab 27 Hrs

Overview of forensic science in collecting and evaluating evidence as a component of the criminal justice system. This course provides an introduction to the role of forensics and criminal investigations. It examines the methods utilized in the forensic analysis of crime scenes, pattern evidence, instruments, firearms, questioned documents, and controlled substances.

[CSU] [C-ID AJ 150]

ADJ-102. PC 832 Arrest and Firearms (3.5)

Prerequisite: prior to the start of ADJ-102, the California Commission for Peace Officers Standards and Training (POST) and the California Penal Code 1311.5 requires from each student Department of Justice written certification stating that the student has no criminal history that would disqualify him/her from using a firearm.

Pass/No Pass Option
Fall/Spring
Lec 49.5 Hrs; Lab 41 Hrs

Designed to satisfy the curriculum standards of the Commission on Peace Officer Standards and Training (POST) as required by Penal Code 832 for peace officers. Topics include: professional orientation; introduction to criminal law with particular attention paid to laws of arrest, evidence, search and seizure; investigation; community relations; verbal and written communication; arrest and control techniques; firearms; cultural diversity/discrimination, the use of firearms, situational use of deadly force, and arrest techniques. There will be a fee associated with the fingerprint clearance from the Department of Justice that is required prior to starting the firearms portion of the class.

ADVANCED AUTOMOTIVE TECHNOLOGY

AAT-100. Introduction to Automotive Repair (4)

Fall/Spring
Lec 36 Hrs; Lab 108 Hrs

An introduction to automotive mechanics and technology for students beginning study as an automotive technician or who desire in-depth knowledge regarding today's automobiles. Covers principles of operation and system servicing procedures for systems found on today's cars. Provides instruction in shop and personal safety, proper use of tools and equipment, completion of basic service and analysis procedures, and review of repairs and specifications from computer-based service manuals. Formerly AUT-50. Not open to students who have completed AUT-50 with a grade of "C" or better.

COURSE LISTINGS

AAT-101. Engine Repair (4)

Spring Only

Lec 36 Hrs; Lab 108 Hrs

Students will learn principles of operation, system service procedures for systems found in today's automotive engines. Course will emphasize shop and personal safety, proper use of hand and precision engine measurement tools, operation of general shop equipment, research to locate pertinent information to perform repairs, as well as how to utilize vehicle specifications on service manuals, and computer diagnostic software during hands-on repair practice. Students will also conduct engine disassembly and assembly, operation, diagnosing engine problems, engine removal, inspection, and in-chassis repairs. Formerly AUT-103. Not open to students who have completed AUT-103 with a grade of "C" or better.

AAT-110. Climate Control (4)

Advisory: *Beginning Algebra or equivalent or placement beyond. Successful completion of AAT-120, or prior practical experience in an automotive shop environment is recommended.*

Fall/Spring

Lec 36 Hrs; Lab 108 Hrs

This course is a study of heating, ventilation, and air conditioning (HVAC) systems, which are designed to maintain a comfortable climate in automotive vehicles. Formerly AUT-110. Not open to students who have completed AUT-110 with a grade of "C" or better.

AAT-120. Electrical and Electronic Systems (4)

Advisory: *Beginning Algebra or equivalent or placement beyond.*

Fall Only

Lec 36 Hrs; Lab 108 Hrs

Course is designed to give students a solid foundation in the fundamental concepts of electricity and electronics as they relate to automotive technology. Students will study automotive electrical and electronic systems, essential theories of electricity, function and design of electrical components, wiring and circuit diagrams, automotive batteries, starting systems, lighting circuits, electrical accessories, introduction to the body computer, vehicle communication networks, advanced lighting circuits, instrumentation and warning lamps, ignition systems, electronic chassis control and accessory systems, and passive restraint systems. This course introduces several fundamental theories and skills that will be used in other courses in the AAT Program. Students with no previous automotive technology knowledge may find it helpful to enroll in this course upon initial entry to the AAT program. Formerly AUT-73. Not open to students who have completed AUT-73 with a grade of "C" or better.

AAT-121. Electronic Systems and Controls (4)

Advisory: *Beginning Algebra or equivalent or placement beyond and AAT-120*

Spring Only

Lec 36 Hrs; Lab 108 Hrs

Course will review automotive electrical and electronic systems, related theories, electrical components, wiring and circuit diagrams, automotive diagnostics of batteries, starting systems, electrical accessories, electronic systems, body computers. Students will advance to vehicle communication networks, advanced lighting circuits, instrumentation and warning lamps, ignition systems, electronic chassis control and accessory systems, and passive restraint systems. The use of digital storage oscilloscope (DSO) and strategies for on-board diagnostics will also be discussed. Formerly AUT-86. Not open to students who have completed AUT-86 with a grade of "C" or better.

AAT-130. Engine Performance (4)

Advisory: *Beginning Algebra or equivalent or placement beyond, AAT-101 and AAT-120*

Fall Only

Lec 36 Hrs; Lab 108 Hrs

Course covers diagnosis and repair of internal combustion engines, including ignition system diagnosis, repair procedures, valve adjusting, fuel system testing, turbochargers and superchargers, exhaust and intake systems diagnosis and repair, emission controls diagnosis and repair. Emphasis will be placed on proper use of tools and literature to perform adjustments and troubleshooting to maintain proper engine performance. Formerly AUT-51. Not open to students who have completed AUT-51 with a grade of "C" or better.

AAT-131. Fuel System and Emissions Control (4)

Prerequisite: *Eligibility for ENG-1A; Beginning Algebra or equivalent or placement beyond and AAT-130 with a grade of "C" or better.*

Spring Only

Lec 36 Hrs; Lab 108 Hrs

A comprehensive study of engine management systems that include fuel, ignition, emissions control systems, and networked accessories. Students will learn the theory of operation, diagnosis, adjustments and repair of engine management systems to include current generation onboard diagnostics (OBD II). Use of an oscilloscope, dynamometer, scanners, and infrared gases analyzer is stressed. Students will be introduced to hybrid vehicle operation and service precautions, as well as to the California Smog Check Program. Formerly AUT-72. Not open to students who have completed AUT-72 with a grade of "C" or better.

ADVANCED DIESEL TECHNOLOGY

AAT-140. Brake Systems (4)**Fall Only****Lec 36 Hrs; Lab 108 Hrs**

Course covers theory of brake systems, and provides hands-on experience in the service and repair of conventional ABS brake systems. Automotive repair exercises develop skills with equipment commonly used in servicing automotive brake systems. Students will learn to identify and interpret brake system concerns; determine necessary repair action; research applicable vehicle and service information, such as brake system operation, vehicle service history, service precautions, and technical service bulletins. Formerly AUT-71. Not open to students who have completed AUT-71 with a grade of "C" or better.

AAT-141. Steering & Suspension Systems (4)**Spring Only****Lec 36 Hrs; Lab 108 Hrs**

Course covers toe, camber, caster, axle inclination, turning radius, and axle alignment affecting tire wear, directional stability and handling; inspection and adjustment of manual steering gear, preload and backlash. Additionally, course content analyzes the power steering system, operation of an electronically variable power steering system, tire and wheel theory and service, hydraulic shock absorbers and McPherson strut suspensions theory. Formerly AUT-83. Not open to students who have completed AUT-83 with a grade of "C" or better.

AAT-150. Manual Transmission and Drive Train (4)**Advisory: AAT-101****Spring Only****Lec 36 Hrs; Lab 108 Hrs**

A comprehensive study of power drivetrain systems found in automotive vehicles. Topics the class will cover include: drive train theory, drive trains and axles, clutches, front-wheel drive (FWD), rear-wheel drive (RWD) and four-wheel drive (4WD); manual transmissions systems; drive shafts and universal joints; differentials and drive train axles; drive train electrical and electronic systems. Formerly AUT-81. Not open to students who have completed AUT-81 with a grade of "C" or better.

AAT-151. Automatic Transmission (4)**Prerequisite: AAT-120 with a grade of "C" or better****Fall Only****Lec 36 Hrs; Lab 108 Hrs**

Covers automatic transmission drive train theory, fundamentals and repair; electronic controls; transmission designs; torque converters and oil pumps; hydraulic circuits and controls; gears and shafts, as well as reaction and friction units. Formerly AUT-82. Not open to students who have completed AUT-82 with a grade of "C" or better.

ADT-100. Diesel Engine Technology (4)**Advisory: Beginning Algebra or equivalent or placement beyond.****Fall/Spring****Lec 36 Hrs; Lab 108 Hrs**

This course explores principles, systems service, and diagnosis procedures for today's heavy-duty diesel engines and equipment. The course will cover industry standards of personal and environmental safety practices, personal protective equipment (PPE), proper lifting practices, proper handling and usage of hand tools, engine theory, and operating principles of a diesel engine, research engine data, and troubleshooting procedures, in print and electronic formats. Students will learn how to properly handle, store, and dispose of hazardous waste and materials in accordance with Federal, State, and local laws and regulations. Student will be required to have a work-shirt, safety glasses, pants and work-boots for safety reasons.

ADT-101. Diesel Engine Rebuild (4)**Advisory: Beginning Algebra or equivalent or placement beyond.****Spring Only****Lec 36 Hrs; Lab 108 Hrs**

This course will guide students through the comprehensive steps to assemble and disassemble a diesel engine. Students will also learn the theory of engine operating systems. Topics include the study of diesel engine construction; engine removal; disassembly; inspection; precision measuring; engine operation; diagnosing engine problems; and in-chassis repairs. Students will be required to have a work-shirt, safety glasses, pants and work-boots for safety reasons.

ADT-110. Electrical and Electronic Systems (4)**Advisory: Beginning Algebra or equivalent or placement beyond.****Fall Only****Lec 36 Hrs; Lab 108 Hrs**

This course is designed to give students a strong foundation in the fundamental concepts of electricity and electronics as they relate to advanced diesel technology vehicles and equipment. Students will study basic theories of electricity, electrical components function and design, wiring and circuit diagrams, introduction to vehicle control modules and their role in the electronic controls, as well as vehicle communication networks and chassis controllers and accessory systems.

COURSE LISTINGS

ADT-111. Electrical Systems and Controls (4)

Advisory: *Beginning Algebra or equivalent or placement beyond.*

Spring Only

Lec 36 Hrs; Lab 108 Hrs

This course will cover electrical theories, electrical troubleshooting and service, wiring and circuit diagrams, electronic engine controls system diagnosis and service, computers and computer-controlled engine systems, electronic diesel fuel injection diagnosis and service.

ADT-120. Climate Control (4)

Advisory: *Beginning Algebra or equivalent or placement beyond.*

Fall/Spring

Lec 36 Hrs; Lab 108 Hrs

This course is a study of heating, ventilation, and air conditioning (HVAC), which is designed to maintain a comfortable temperature in heavy duty vehicles and equipment.

ADT-121. Preventive Maintenance (4)

Advisory: *Beginning Algebra or equivalent or placement beyond.*

Spring Only

Lec 36 Hrs; Lab 108 Hrs

This course will cover the full spectrum of systems found in diesel trucks and equipment, including the electrical, lubrication, heating, cooling, exhaust, and transmission systems. Students will learn essential maintenance and service tasks to be performed on heavy-duty diesel trucks and equipment. The tasks performed by students in this course correspond to guidelines set by the U.S. Department of Transportation, Rules and Regulations, Section 396. Students will be required to have a work-shirt, safety glasses, pants and work-boots for safety reasons.

ADT-130. Brake Systems (4)

Advisory: *Beginning Algebra or equivalent or placement beyond.*

Fall Only

Lec 36 Hrs; Lab 108 Hrs

This course is a study of brake systems in heavy-duty diesel vehicles and equipment. Students will examine air brake, hydraulic brake, and drum brake systems, as well as hydraulic and air brake parking systems, and anti-lock brake theory and maintenance. Students will learn to service and repair wheel bearing and seals.

ADT-131. Steering and Suspension Systems (4)

Advisory: *Beginning Algebra or equivalent or placement beyond.*

Fall Only

Lec 36 Hrs; Lab 108 Hrs

This course is a comprehensive study of heavy-duty diesel steering and suspension systems. Students will examine alignment and service; suspension systems and service; chassis system and service; front wheel drive axles fundamentals and service; rear wheel drive shafts and axles fundamentals and service. Students will learn how to properly handle, store, and dispose of hazardous waste and materials by Federal, State, and local regulations. Students will be required to have a work-shirt, safety glasses, pants and work-boots for safety reasons.

ADT-140. Power Drivetrain (4)

Advisory: *Beginning Algebra or equivalent or placement beyond.*

Spring Only

Lec 36 Hrs; Lab 108 Hrs

This course is a comprehensive study of the heavy-duty diesel power drive train found in diesel powered equipment and vehicles. Topics include; drivetrain theory, drive trains and axles, clutches, manual transmissions, drive shafts and universal joints, differentials and drivetrain axles, drive train electrical and electronic systems.

ADT-141. Automatic Transmission (4)

Advisory: *Beginning Algebra or equivalent or placement beyond.*

Fall Only

Lec 36 Hrs; Lab 108 Hrs

This course will cover automatic transmissions drive train theory, fundamentals and repair; electronic controls; transmission designs, torque converters and oil pumps; hydraulic circuits and controls; gear and shafts, as well as reaction and friction units. Students will be expected to master personal and environmental safety practices that are standard in the heavy-duty diesel industry.

AGRICULTURE BUSINESS AND TECHNOLOGY

ABT-41. Pesticide Applicator Certification Training (3)

Spring Only

Lec 54 Hrs

Common pests and their management, pesticide labels, mixing and applying pesticides, safety, and additional laws and regulations relating to pesticides. Protecting the environment will also be covered. Special category certifications will be covered depending on class need/interest. Designed to prepare students for the state pesticide laws and regulations exam.

[CSU]

ABT-49. Introduction to Agriculture Business (3)**Fall Only****Lec 54 Hrs**

A survey and basic understanding of the business and economics of the agriculture industry. It is an introduction to the economic aspects of agriculture and their implications to the agricultural producer, consumer and the food system. The management principles encountered in the day-to-day operation of an agricultural enterprise are stressed as they relate to the decision-making process.

[CSU; UC] [C-ID AG-AB 104]**ABT-52. Sales and Service in Agribusiness (3)****Spring Only****Lec 54 Hrs**

Involves the study of principles and practices of the selling process: selling strategies and approaches, why and how people buy, prospecting, territory management, and customer service. Self-management, communication, and interpersonal skills necessary in developing managerial abilities, leadership qualities, and facilitating teamwork within the agribusiness sector will be explored.

[CSU] [C-ID AG-AB 112]**ABT-53. Agribusiness Economics (3)****Fall Only****Lec 54 Hrs**

Designed to further a student's understanding of how agriculture and agricultural production systems work within global economic systems, including basic economic concepts, supply and demand, pricing and marketing considerations, production factors, resource allocation, cost analysis, problems specific to agriculture, plus state and federal farm programs affecting the economic positions of agriculture companies.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4B]**[C-ID AG-AB 124]****ABT-54. Agriculture Marketing (3)****Spring Only****Lec 54 Hrs**

Survey of marketing aspects of the agricultural industry. An overview of the structure and institutional aspects of the marketing system including global agricultural markets. Industry studies of the marketing of selected locally grown commodities will be made. Course designed for students interested in Agriculture Business and Agriculture Production major.

[CSU]**ABT-57. Agriculture Computer Applications (3)**

Advisory: Students should have basic familiarity with the use of computers (email, word processing) prior to taking this course.

Fall Only**Lec 36 Hrs; Lab 54 Hrs**

Computer use in the workplace with emphasis on agribusiness situations. Computer applications including word-processing, spreadsheets, databases, and presentation managers will be covered. Specific applications of database systems in agriculture will be discussed: traceback systems, field and facilities monitoring, inventory control, financial tracking. Also included will be accessing information through the Internet and World Wide Web, telecommunications, an introduction to web page design and other software appropriate to agribusiness.

[CSU; UC] [C-ID AG-AB 108]**ABT-58. Agriculture Laws & Regulations (3)****Fall/Spring****Lec 54 Hrs**

An introduction to the laws and regulations affecting the agriculture industry. Topics include government agencies and their functions, public and employee safety, insurance, agriculture organizations, labor and land issues, and water and air quality issues.

[CSU]**ABT-80. Introduction to Sustainable Agriculture and Food (3)****Spring Only****Lec 54 Hrs**

This course introduces the topic of environmental and social sustainability in agriculture emphasizing a multi-disciplinary analysis of food and farming systems. Students will learn the history of agricultural development and the influence of agricultural technologies and land use practices on agro-ecosystem functioning, environmental quality, and human health. The course examines the ecology, environmental science, sociology and economics of agricultural systems. The course concludes with an assessment of the social, economic and political obstacles, opportunities and enabling environments for the widespread adoption of more environmentally sustainable and socially equitable food and farming systems.

[CSU]

COURSE LISTINGS

ABT-81. Integrated Pest Management Principles in Entomology (3)

Fall Only - Odd Years

Lec 36 Hrs; Lab 54 Hrs

Introduction to insects and mites of economic importance to agriculture. Covers the morphology, taxonomy, identification, life cycles, hosts, habitat relationships, and control methods of insects of economic importance. Collection and labeling of specimens will be required. Field trips required.

[CSU]

ABT-82. Integrated Pest Management Principles in Weed Science (3)

Advisory: *BIO-10 or ABT-92 strongly advised.*

Spring Only – Odd Years

Lec 36 Hrs; Lab 54 Hrs

Introduction to the classification, identification, and life cycle of common and poisonous weeds in California which are detrimental to cultivated crops, grasslands, animals, and humans. Management practices include: prevention, mechanical, biological, and chemical methods. Weed establishment and chemical resistance are also covered. Collection and labeling of specimens are required. Field trips required.

[CSU]

ABT-83. Integrated Pest Management Principles in Plant Pathology (3)

Advisory: *ABT-92 or completion of any college-level biology course, with a grade of "C" or better, is strongly recommended.*

Fall Only – Even Years

Lec 36 Hrs; Lab 54 Hrs

This course is a study of agents, disease cycles, symptomology, and management of plant diseases. Management practices include prevention, cultural, chemical, and biological methods.

[CSU]

ABT-90. Soil Science (3)

Fall/Spring

Lec 36 Hrs; Lab 54 Hrs

Provides a basic knowledge of the genetic, physical, chemical, and biological properties of soils. Explores principles involved in the interpretation of soils information for land use management, (including agricultural production and non-agricultural uses), and conservation. Includes a weekly laboratory activity.

[CSU; UC; CSU-GE, AREA B1, B3; IGETC, AREA 5]

[C-ID AG PS-128L]

ABT-92. Plant Science (3)

Fall/Spring

Lec 36 Hrs; Lab 54 Hrs

An introduction to plant science including structure, growth processes, propagation, physiology, growth media, biological competitors, and post-harvest factors of food, fiber, and ornamental plants.

[CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5]

[C-ID AG-PS 106L]

ABT-93. Product Processing & Cooling (3)

Fall Only

Lec 54 Hrs

Introduction to the specializations of post-harvest technology and cold chain management. Focuses on post-harvest handling, processing and cooling of fresh vegetable and fruit products as well as the cooling systems and equipment involved. Topics include post-harvest biology and physiology, harvesting systems, preparation for the fresh market, packaging, cooling systems and product processing. Food safety and sanitation will be introduced.

[CSU]

ABT-94. Agriculture Enterprise Project (2)

Advisory: *Students should have some basic familiarity with safe farming practices.*

Fall Only

Lec 18 Hrs; Lab 54 Hrs

Students will gain practical field experience in vegetable or horticultural crop production. Projects may be developed with an emphasis on organic or conventional production systems. Working cooperatively in small groups, students will learn to develop a small scale production plan and complete the entire production cycle. Field projects will include exposure to the entire range of field operations: ground preparation, planting, irrigation, fertility management, pest management, and harvest. Greenhouse projects will include exposure to a complete cycle of greenhouse operations: planting, climate control systems, irrigation systems, fertility management, pest management, and sale or harvest of the finished crop. Designed for students with a high level of commitment to agriculture.

[CSU]

ABT-95. Introduction to Small Fruit Science (3)

Spring Only - Even Years

Lec 36 Hrs; Lab 54 Hrs

This course covers the botany, taxonomy, and plant development of small fruit crops in California including variety selection, climatic requirements and culture, production practices including site selection, establishment, fertilization, pollination, irrigation, harvest, storage, processing, marketing, pest management, and pruning. Laboratory required.

[CSU]

ABT-96. Vegetable Crop Production (3)**Fall Only - Odd Years****Lec 36 Hrs; Lab 54 Hrs**

Involves the study of vegetable production covering the botany, cultural aspects, harvesting, processing, growth characteristics, fertility, pests, and marketing of the major vegetable crops of the Central Coast and throughout California.

[CSU]**ABT-97. Vineyard Production and Management (3)****Fall Only****Lec 36 Hrs; Lab 54 Hrs**

Provides a through overview of the production and management practices of grapes with an emphasis on California wine grapes and berry products. Topics will include climate zones, soil selection, financing, farm organization, irrigation systems, field layout, varietal selection, nutritional needs, harvesting, and labor management, marketing, and budgeting. Includes a brief introduction into winemaking process.

[CSU; UC]**ABT-98. Fertilizers and Plant Nutrition (3)****Spring Only – Odd Years****Lec 36 Hrs; Lab 54 Hrs**

Covers the composition, selection, efficacies, and proper application methods of fertilizer materials and soil amendments. Includes fertilization and amendment materials for conventional and organic agriculture production systems. Soil, plant, and fertilizer relationships will be covered. Application practices currently being used in California will be emphasized.

[CSU]**ABT-99. Occupational Cooperative Work Experience
Education (1 - 8)****Fall/Spring**

Designed for students employed or volunteering to assist them in the development of skills and responsibilities related to the work environment. Structured objectives are developed and agreed upon by the student, college instructor, and employer. Students are eligible to earn 1 unit for 60 hours of volunteer work or 75 hours of paid work. A maximum of 8 units per semester may be earned up to a total of 16 credit units of Cooperative Work Experience classes.

[CSU]**ABT-101. Organic Vegetable Production (1.5)****Fall Only****Lec 18 Hrs; Lab 27 Hrs**

Intended for Agriculture Production majors and entrepreneurial students with interest in organic farming operations and organic production methods. Covers the practical aspects of developing a crop plan that meets USDA organic certification requirements and insures sustainable production for long-term farm viability. Students will develop a crop plan that includes the following areas of detail: choosing appropriate crops and cultivars, establishing crop rotations, planting annual cover crops, and managing soil fertility in organic systems.

ABT-102. Organic Field Production Methods (1.5)**Spring Only****Lec 18 Hrs; Lab 27 Hrs**

Intended for Agriculture Production majors and entrepreneurial students with interest in organic farming operations and organic production methods. Covers the practical field methods involved in soil preparation, nutrient management, farm equipment management and maintenance, plant disease management, irrigation set-up and management, weed control, and integrated pest management that insures sustainable production for long-term farm viability. Students will complete field designs for a model 0.5-acre organic farm with descriptions of all inputs, potential control methods, and monitoring methods for crop health.

**ABT-103. Agriculture Whole Farm Planning and
Recordkeeping for Small Farmers (1.5)****Spring Only****Lec 18 Hrs; Lab 27 Hrs**

Intended for Agriculture Production majors and entrepreneurial students with interest in organic farming operations and organic production methods. Covers the practical aspects of daily farm management with an emphasis on record-keeping and whole farm management. Students have a chance to actively manage organic and food safety certification as part of a student enterprise.

**ABT-104. Agriculture Business Development for New
Organic Farmers (1.5)****Spring Only****Lec 18 Hrs; Lab 27 Hrs**

Intended for Agriculture Production majors and entrepreneurial students with interest in starting their own farming operation and beginning the process of business planning. Covers the legal obligations, state regulations, and federal laws governing agricultural operations with a focus on developing a business and marketing plan. Students will incorporate business-planning concepts into a presentation at the end of the course sequence.

ABT-105. Marketing Opportunities and Growth for Organic Farming (1.5)

Spring Only

Lec 18 Hrs; Lab 27 Hrs

Intended for Agriculture Production majors and entrepreneurial students with interest in organic farming operations and organic production methods. Covers the marketing and sales options for organic produce with a focus on diverse marketing options available to small growers. Students will research the advantages and disadvantages of different marketing channels, sales strategies, and pricing in a growing vegetable market that will be summarized into a presentation.

ABT-110. Careers in Agriculture and Technology (2)

Fall Only

Lec 36 Hrs

Introduction to educational opportunities and career development in agriculture and related fields. Includes portfolio and educational plan development and curriculum requirements that pertain to educational goals as they relate to agriculture majors. Assists students in setting goals and developing interpersonal and intrapersonal skills necessary for life-long success in obtaining, maintaining, and advancing in agriculture careers. Current events that impact agriculture and society will be discussed.

ABT-130. Introduction to Food Safety (1.5)

Fall/Spring

Lec 27 Hrs

An introductory course in food safety for those in agriculture majors and others interested in exploring career options. Covers conditions and practices that cause food borne illnesses, organisms responsible, elements of a food safety control system, worker sanitation, an introduction to best practices at the processing, retail and home kitchen. Field trips may be required.

ABT-131. Agricultural Practices for Food Safety (1.5)

Prerequisite: ABT-130 with a grade of "C" or better.

Spring Only

Lec 27 Hrs

Focuses on establishing agricultural practices as they relate to the production of farm products from a food safety standpoint. Covers the specific guidelines for some key agricultural commodities, regulating and monitoring food safety guidelines, writing standard operating procedures, employee training, and technologies to assist in production of safe food. Field trips may be required.

ABT-132. Food Safety Management (1.5)

Prerequisite: ABT-130 with a grade of "C" or better.

Spring Only

Lec 27 Hrs

Covers the creation and documentation of key elements in a food safety program including: evaluating current practices, creating and implementing key aspects within a food safety program, documentation, and recognition of pathogen behavior. Field trips may be required.

ABT-133. Facility Management for Food Safety (1.5)

Spring Only

Lec 27 Hrs

Covers food safety issues and concerns in the manufacturing facility including such: facility sanitation, recognizing potential hazards, analysis of problems in the cold chain, developing improved practices, HACCP principles, employee training, and the inspection process. Field trips may be required.

ABT-134. Environment Effects on Food Borne Pathogens (1.5)

Fall Only

Lec 27 Hrs

Potential environmental sources and transport mechanisms of food-borne pathogens. Students will learn how to make informed decisions about the potential effects of local site conditions on food safety. Covers the role of site conditions in pathogen transport such as: livestock proximity, wildlife behavior and habitat, rainfall and irrigation runoff, soil types, slope, aspect, climate, soil erosion and deposition by water and wind, flooding, vegetation and the behavior of pathogens in the environment. Field trips may be required.

ABT-135. Introduction to Food Microbiology (1.5)

Advisory: Introductory course in Biology.

Fall Only

Lec 18 Hrs; Lab 27 Hrs

An introduction to the principles of food microbiology and food safety. Investigation of the beneficial and harmful effects of microorganisms on food. Survey of the types of microbes found in various types of food, as well as methods for their detection. Evaluation of methods of microbial control and mechanisms of disease of important food microorganisms, as well as sources of food contamination. Examination of implementation and effectiveness of food safety programs. Field trips may be required.

ABT-160. Introduction to Agriculture (3)**Fall Only****Lec 54 Hrs**

A survey of agriculture products and the businesses that produce, service, and supply those products. Focuses on Central Coast fresh vegetable, viticulture and berry production. A broad view of California, United States, and world production will also be covered. The skill sets required in those businesses will be discussed. Surveys some of the career choices in the agriculture specialty areas.

ABT-258. Agriculture Ambassadors (2)**Spring Only****Lec 18 Hrs; Lab 54 Hrs**

Agriculture leadership training through application of individual and group leadership techniques. Requires participation as an Agriculture Ambassador team member in college recruitment activities, including giving recruitment presentations at off campus sites, hosting prospective student groups for on-campus visitations, and sponsoring recruitment activities for the local Agriculture industry.

AMERICAN SIGN LANGUAGE

ASL-1. American Sign Language I (5)**Fall/Spring****Lec 90 Hrs**

Introduction to American Sign Language (ASL). Essentials of ASL structure, syntax, classifiers, and non-manual markers. Expressive and receptive signing ability including vocabulary, fingerspelling, use of space, application of size and shape specifiers (classifiers), and grammatical non-manual markers. Introduction to the history of Deaf culture, education, and ASL in the United States.

[CSU; UC; CSU-GE, AREA C2; IGETC AREA 6]**ASL-2. American Sign Language II (5)****Prerequisite:** ASL-1 with a grade of "C" or better.**Fall Only****Lec 90 Hrs**

Continuation of skill building towards effective communication in American Sign Language (ASL). Drill and exercises at the intermediate level of sign language structure, form, usages, and conversation. Continued exploration and understanding of Deaf history and culture, including the American Deaf perspective, social norms and current issues in the Deaf community. Participation in Deaf cultural event required.

[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 6]**ASL-3. American Sign Language III (5)****Prerequisite:** ASL-2 with a grade of "C" or better.**Pass/No Pass Option****Fall/Spring****Lec 90 Hrs**

Intermediate to advanced level syntax, grammar, history, and vocabulary of American Sign Language. Emphasis on increasing proficiency in conversational situations and increasing awareness of Deaf culture and its influence on language structures, conversation, context, and usage. Special emphasis on oral presentation. Participation in Deaf cultural event required.

[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 6]

ANTHROPOLOGY

ANT-1. Introduction to Biological Anthropology (3)**Advisory:** Eligibility for ENG-1A**All Terms****Lec 54 Hrs**

An introductory survey in biological or physical anthropology. The course provides an overview of the basic data, methodology and theories of the principal subdivision of the field--population genetics, primatology, paleoanthropology, and human variability and adaptation--to understand the process of human evolution. It is designed to fit the needs and interests of both beginning anthropology majors and general education students. Students taking this course must have basic computer skills for operating Microsoft Word and e-mail, including sending attachments and files. Students also need access to the Internet and must have adequate hardware and software capabilities. Access to computers is also available at the Hartnell College/Library/LRC.

[CSU; UC; CSU-GE, AREA B2, D; IGETC, AREA 5]**[C-ID ANTH 110]****ANT-2. Introduction to Cultural Anthropology (3)****Advisory:** Eligibility for ENG-1A**All Terms****Lec 54 Hrs**

A survey of the range of cultural phenomena including language, patterns of subsistence, economic organization, marriage and the family, kinship, political organization, religion, the arts, and culture change. Examples taken from a wide range of foraging, tribal, and complex state societies are employed to illustrate the methodology, concepts, and theories of anthropological science. It is intended for both beginning anthropology majors and general education students. Students taking this course must have basic computer skills for operating Microsoft Word and e-mail, including sending attachments and files. Students also need access to the Internet and must have adequate hardware and software capabilities. Access to computers is also available at the Hartnell College/Library/LRC.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]**[C-ID ANTH 120]**

ANT-10. Indigenous Cultures of California (3)

Advisory: Eligibility for ENG-1A

Fall Only

Lec 54 Hrs

A survey of the native societies of California through an overview of their cultural evolution from pre-contact to historic periods. It is designed to fit the needs and interests of both beginning anthropology majors and general education students.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]

ANT-20. Mesoamerica: Cultures and Civilizations of Mexico and Central America (3)

Advisory: Eligibility for ENG-1A

Spring Only

Lec 54 Hrs

This course offers a survey of the Mesoamerican cultures and civilizations of Mexico and Central America as presented by the archaeological, historical and ethnographic information of the area. Covering the periods from the early hunting and gathering societies through the development of farming villages and civilizations, this course provides an overview of the principal civilizations, the Aztec and Maya, at the time of European contact and the aftermath of the Spanish conquest to fully comprehend the stage of contemporary indigenous cultures of Mexico and Central America. It is intended for both beginning anthropology majors and general education students.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]

APPRENTICESHIP

APP-120. 1st Year Commercial Electrical Appr I (4)

Advisory: Successful completion of: one full credit of high school algebra with a passing grade, or one post high school algebra course (e.g. Adult Education, Continuing Education, Community College, etc.) with a passing grade, or successful completion of the NJATC Online Tech Math Course.

Other: Section 3074.3 of the State Labor Code authorizes limitation of this course to students who have been accepted into the Inside Apprenticeship program of the Tri-County Electrical JATC.

Lec 72 Hrs

First semester of the first year in the five-year Commercial/Industrial Electrical Apprenticeship Program leading to Journeyman Electrician certification in the electrical construction industry.

APP-121. 1st Year Commercial Electrical Appr II (4)

Prerequisite: APP-120 with a grade of "C" or better.

Other: Section 3074.3 of the State Labor Code authorizes limitation of this course to students who have been accepted into the inside Apprenticeship program of the Tri-County Electrical.

Lec 72 Hrs

Second semester of the first year in the five-year Commercial/Industrial Electrical Apprenticeship Program leading to Journeyman Electrician certification in the electrical construction industry.

APP-122. 2nd Year Commercial Electrical App I (4)

Prerequisite: APP-121 with a grade of "C" or better and Student is a registered State indentured apprentice.

Other: Section 3074.3 of the State Labor Code authorizes limitation of this course to students who have been accepted into the Inside Apprenticeship program of the Tri-County Electrical JATC.

Pass/No Pass Option

Lec 72 Hrs

First semester of the second year in the five-year Commercial/Industrial Electrical Apprenticeship Program leading to Journeyman Electrician certification in the electrical construction industry.

APP-123. 2nd Year Commercial Electrical Apprentice II (4)

Prerequisite: APP-122 with a grade of "C" or better and Student is a registered State indentured apprentice.

Other: Section 3074.3 of the State Labor Code authorizes limitation of this course to students who have been accepted into the Inside Apprenticeship program of the Tri-County Electrical JATC.

Lec 72 Hrs

Second semester of the second year in the five-year Commercial/Industrial Electrical Apprenticeship Program leading to Journeyman Electrician certification in the electrical construction industry.

APP-124. 3rd Year Commercial Electrical Appr. I (4)

Prerequisite: APP-123 with a grade of "C" or better and Student is a registered State indenture apprentice.

Other: Section 3074.3 of the State Labor Code authorizes limitation of this course to students who have been accepted into the Inside Apprenticeship program of the Tri-County Electrical JATC.

Lec 72 Hrs

First semester of the Third year in the five-year Commercial/Industrial Electrical Apprenticeship Program leading to Journeyman Electrician certification in the electrical construction industry.

APP-125. 3rd Year Commercial Elec App II (4)

Prerequisite: APP-124 with a grade of "C" or better and Student is a registered State indentured apprentice

Other: Section 3074.3 of the State Labor Code authorizes limitation of this course to students who have been accepted into the Inside Apprenticeship program of the Tri-County Electrical JATC.

Lec 72 Hrs

Second semester of the third year in the five-year Commercial/Industrial Electrical Apprenticeship Program leading to Journeyman Electrician certification in the electrical construction industry.

APP-126. 4th Year Commercial Electrical Apprentice I (4)

Prerequisite: APP-125 with a grade of "C" or better and Student is a registered State indentured apprentice.

Other: Section 3074.3 of the State Labor Code authorizes limitation of this course to students who have been accepted into the Inside Apprenticeship program of the Tri-County Electrical JATC.

Lec 72 Hrs

First semester of the fourth year in the five-year Commercial/Industrial Electrical Apprenticeship Program leading to Journeyman Electrician certification in the electrical construction industry.

APP-127. 4th Year Commercial Electrical Apprentice II (4)

Prerequisite: APP-126 with a grade of "C" or better and Student is a registered State indentured apprentice.

Other: Section 3074.3 of the State Labor Code authorizes limitation of this course to students who have been accepted into the Inside Apprenticeship program of the Tri-County Electrical JATC.

Pass/No Pass Option

Lec 72 Hrs

Second semester of the fourth year in the five-year Commercial/Industrial Electrical Apprenticeship Program leading to Journeyman Electrician certification in the electrical construction industry.

APP-128. 5th Year Commercial Electrical Apprentice I (4)

Prerequisite: APP-127 with a grade of "C" or better and Student is a registered State indentured apprentice

Other: Section 3074.3 of the State Labor Code authorizes limitation of this course to students who have been accepted into the Inside Apprenticeship program of the Tri-County Electrical JATC.

Pass/No Pass Option

Lec 72 Hrs

First semester of the fifth year in the five-year Commercial/Industrial Electrical Apprenticeship Program leading to Journeyman Electrician certification in the electrical construction industry.

APP-129. 5th Year Commercial Electrical Apprentice II (4)

Prerequisite: APP-128 with a grade of "C" or better and Student is a registered State indentured apprentice

Other: Section 3074.3 of the State Labor Code authorizes limitation of this course to students who have been accepted into the Inside Apprenticeship program of the Tri-County Electrical JATC

Pass/No Pass Option

Lec 72 Hrs

Second semester of the fifth year in the five-year Commercial/Industrial Electrical Apprenticeship Program leading to Journeyman Electrician certification in the electrical construction industry.

ART

ART-1A. Art History Survey I (3)

Advisory: Completion of or concurrent enrollment in ENG-1A

All Terms

Lec 54 Hrs

A survey of the major monuments, styles, artists and historical periods of painting, sculpture and architecture from Mediterranean prehistory through Egypt, Mesopotamia, Greece, Rome and the Middle Ages of Western Europe.

[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3A]

[C-ID ARTH 110]

ART-1B. Art History Survey II (3)

Advisory: Completion of or concurrent enrollment in ENG-1A

All Terms

Lec 54 Hrs

A survey of the major monuments, styles, artists and historical periods of painting, sculpture and architecture of Western Europe and America from early Renaissance to the contemporary period.

[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3A]

[C-ID ARTH 120]

ART-3. Drawing and Composition (3)

Fall/Spring

Lec 36 Hrs; Lab 72 Hrs

Surveys and applies the fundamentals of observation, drawing, and composition through the study of contour, shape, line, perspective, value, basic rendering, and creative applications of drawing. Students will provide pencils, charcoal, ink, drawing tools, and paper.

[CSU; UC] [C-ID ARTS 110]

COURSE LISTINGS

ART-6A. Watercolors and Gouache (3)

Fall/Spring

Lec 36 Hrs; Lab 72 Hrs

The development of ideas, theory and techniques as applied to painting in watercolor and gouache media. Emphasis on color and value composition, as well as special and linear composition. Students will provide paint, brushes, and painting surfaces.

[CSU; UC]

ART-6B. Oils (3)

Fall/Spring

Lec 36 Hrs; Lab 72 Hrs

The study of oil painting in transparent and opaque media. Techniques of media manipulation and application, compositional development, the effect of color on content and meaning, and preservation and handling of finished works are examined. Students will provide paint, brushes, and painting surfaces.

[CSU; UC]

ART-6C. Acrylics (3)

Fall/Spring

Lec 36 Hrs; Lab 72 Hrs

Study of painting in opaque and transparent acrylics. Students will provide paint, brushes, and painting surfaces. Combinations of ART 6, ART 6B, and ART 6C may be taken four times for credit.

[CSU; UC]

ART-10. Art Appreciation (3)

All Terms

Lec 54 Hrs

An introductory study of art examining the styles, elements and techniques as well as the painting, sculpture and architecture of various historical periods and cultures.

[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3]

[C-ID ARTH 100]

ART-12A. Design (3)

Fall/Spring

Lec 36 Hrs; Lab 72 Hrs

Introduction to the fundamentals of basic visualization, conceptualization, applications, and historical references in art studio theory and practice. Emphasis will be on the exploration of two-dimensional composition incorporating color, value, line and form. Students will be charged a lab fee of \$90. The lab fee covers the cost of illustration board and paint. Students will provide their own brushes, pencils, and paper.

[CSU; UC] [C-ID ARTS 100]

ART-13. Three-Dimensional Design (3)

Fall Only

Lec 36 Hrs; Lab 72 Hrs

An introduction to the concepts, applications, and historical references related to three-dimensional design and spatial composition using plastic, metal, wood and other materials.

[CSU; UC] [C-ID ARTS 101]

ART-15A. Ceramics A (3)

Fall/Spring

Lec 36 Hrs; Lab 72 Hrs

An introductory study of clay and ceramic materials and their use in the creation of art objects by slab and coil methods; introduction to the potter's wheel, clay tools, and optional materials (aprons, sponges, towels, etc.).

[CSU; UC] [C-ID ARTS 230]

ART-15B. Ceramics B (3)

Prerequisite: ART-15A with a grade of "C" or better.

Fall/Spring

Lec 36 Hrs; Lab 72 Hrs

Further study of clay and ceramic materials and their use in the creation of art objects by slab and coil methods, the potter's wheel and the use and mixing of glazes and firing methods. Students will provide clay, clay tools, and optional materials (aprons, sponges, towels, etc.).

[CSU; UC]

ART-19. The Intersection of Creative and Critical Thinking: Aesthetics (3)

Lec 36 Hrs; Lab 54 Hrs

Explores the relationship between creativity and critical thinking. Applying concepts such as beauty and originality, students will engage in problem solving activities across different disciplines. The approach will include both aesthetic theory and hands-on activities.

[CSU; UC; CSU-GE, AREA C; IGETC, AREA 3A]

ART-52. Portfolio Development (3)

Advisory: Completion of at least two studio classes in one specific medium (for example, ART-15A and 15B)

Lec 36 Hrs; Lab 72 Hrs

Examines techniques and materials needed by art students planning on transferring to institutions for upper division study in the arts by portfolio admission. Students will develop appropriate written materials and a cohesive body of studio work in a single medium that emphasizes their level of technical skill and personal style. Aspiring artists develop a portfolio for presentation to a gallery to obtain professional representation.

[CSU]

ART-70. Introduction to Graphic Design and Computer Graphics (3)

Fall Only

Lec 36 Hrs; Lab 54 Hrs

The study and application of the fundamentals of graphic design including history, theory and practice. This course brings together a blend of the aesthetic principles of design and hands-on computer-based production skills. Structuring graphic design information from visual design concept through final product, students will utilize the computer graphic applications of Adobe Illustrator, Adobe InDesign, and Corel Painter on the Macintosh computer.

[CSU; UC]

ART-71. Introduction to 2D Digital Illustration (3)

Fall Only

Lec 36 Hrs; Lab 54 Hrs

This introductory course will examine the historic and artistic expressions of Western civilization art and translate the visual experience into a contemporary digital art medium. Students will study the aesthetic principles of drawing through two-dimensional digital vector and pixel-oriented illustration. Students will acquire hands-on experience with the illustration concepts of visual weight, solidity, depth, balance, eye flow, color theory, angle of view, composition placement, using tonal values to indicate a light source and 1, 2, and 3 point perspective.

[CSU; UC]

ART-72. Introduction to Digital Arts (3)

Fall/Spring

Lec 36 Hrs; Lab 54 Hrs

An introduction to the fundamentals of digital arts, including history, social impact, career options and industry trends. Students will apply visual and aural aesthetic design principles in the hands-on exploration of the digital art tools of typography, graphics, digital imaging, animation, full motion video, and digital media interface design. Students will analyze the essential topics of interactivity, media development process, and the applications and future directions of the digital arts.

[CSU; UC] [C-ID ARTS 250]

ART-73. Introduction to Digital Illustration for Animation (3)

Fall Only

Lec 36 Hrs; Lab 54 Hrs

An introduction to the historic study of the visual representation of animated motion in both Eastern and Western civilization art and the translation into a contemporary digital art medium. Students will examine digital illustration with an emphasis on the preparation of visual imagery for animation. Concentration will be placed on illustrating gesture and movement, storyboarding, skeletal framework, and anatomical details. Students will have hands on experience with figure characters, object models and two-dimensional sequential movement illustration.

[CSU]

ART-74. Digital 3-D Design and Modeling (3)

Fall Only

Lec 36 Hrs; Lab 54 Hrs

A visual and hands-on analysis of historical and contemporary designs, primarily concerned with the visual dialogue between form and space in the three-dimensional composition. Students will develop the ability to process visual information into digital three-dimensional projects of both additive and subtractive sculptural methods using computer-based 3D applications. Line, plane, and volume are utilized in a problem-solving format in order to develop the ability to create expressive objects within the digital 3D art interface.

[CSU]

ART-76. Introduction to 3D Digital Animation (3)

Spring Only

Lec 36 Hrs; Lab 54 Hrs

An introduction to the field of 3D animation, including history, aesthetic principles, social impact, career options and industry trends. Students will explore the use of 3D animation in both Eastern and Western civilization and the progression into contemporary digital applications. Students will develop an animation from original concept to the planning of a written and visual storyboard and into a finalized movie output. Students will utilize 3D computer-based applications for hands-on experience with digital key frame animation with an emphasis on the visual aesthetics of gesture and movement. Emphasis will also involve the exploration the visual representation of a 3D environment through the critical decisions of camera angle, lighting and surface qualities.

[CSU]

ART-77. Introduction to Digital Video and Video Editing (3)

Spring Only

Lec 36 Hrs; Lab 54 Hrs

An introduction to the field of digital video and video editing, including the history and overview of analog and digital video, analysis of the social impact of commercial and fine art videos, exploration of digital video career options and industry trends and the application of non-linear video editing. Students will work hands-on on creating digital video.

[CSU]

COURSE LISTINGS

ART-78. Motion Graphics & Design Principles (3)

Spring Only

Lec 36 Hrs; Lab 54 Hrs

Motion graphics is a form of visual communication used for a variety of applications such as film, television, web, communication design, branding and advertising. This course introduces students to the principles and aesthetics of motion graphics. Students will conceptualize, design and produce visual communication solutions using kinetic and time-based design techniques. Students will experience the process of project management as it applies to a motion graphic project. Students will create and construct original motion graphics projects with vector and pixel imagery, typography, 2D animation and 2d and 3D visual effects utilizing such tools as Adobe After Effects. **[CSU]**

ART-80. Introduction to Digital Photography and Photographic Imaging (3)

Fall/Spring

Lec 36 Hrs; Lab 54 Hrs

An introduction to the field of digital photographic media, including history, social impact, career options and industry trends. Students will explore the use of digital photographic tools in the design and production of digital photographic media. Students will work hands-on with Adobe Photoshop, the industry standard for digital photo imaging, retouching, design and web creation. Students will learn to create, scan and manipulate images for graphic and fine arts.

[CSU; UC]

ART-84. Digital Art Portfolio & Business Practices (3)

Prerequisite: ART-70, ART-72, ART-77 and ART-80 with a grade of "C" or better.

Spring Only

Lec 36 Hrs; Lab 54 Hrs

Designed for intermediate and advanced level students wishing to pursue a career in the digital art areas of: digital illustration, 3D modeling and animation, graphic design, video, web design, game design, motion graphics, digital photography and photo imaging. Topics include selection of work, sequencing, presentation formats (demo reels, online portfolios, interactive portfolios and print portfolios). Includes professional business practices (proposals, billing, copyright, resumes etc.), and social media as a mobile marketing tool for use by digital artists. Students will develop and assemble individual portfolios for application for employment in the field or to transfer to four-year colleges. Strongly recommended for digital art majors.

[CSU]

ART-100. Ceramics: European Folk Traditions (3)

Lec 36 Hrs; Lab 72 Hrs

A study of ceramic three-dimensional forms and skill building production methods with emphasis on the European folk tradition. Students may only take four of the following courses: ART-15A, ART-15B, ART-100, ART-101, ART-102, and ART-103. Each course is not repeatable. Students will be charged a lab fee of \$40 to cover clay, glaze and other items.

ART-101. Ceramics: Chinese and Korean Traditions (3)

Lec 36 Hrs; Lab 72 Hrs

Introduction to Ceramic Forms methods with Emphasis on Chinese and Korean Traditions. Students may only take four of the following courses: ART-15A, ART-15B, ART-100, ART-101, ART-102, and ART-103. Each course is not repeatable. Students will be charged a lab fee of \$40 to cover clay, glaze and other items.

ART-102. Ceramics: Japanese Traditions (3)

Lec 36 Hrs; Lab 72 Hrs

Introduction to Ceramic Forms and Methods with Emphasis on Japanese Traditions. Students may only take four of the following courses: ART-15A, ART-15B, ART-100, ART-102 and ART-103. Each course is not repeatable. Students will be charged a lab fee of \$40 to cover clay, glaze and other items.

ART-103. Ceramics: Pre-Columbian Traditions (3)

Lec 36 Hrs; Lab 72 Hrs

Introduction to Ceramic Forms and Methods with Emphasis on Pre-Columbian Mesoamerican and Peruvian Traditions. Students may only take four of the following courses: ART-15A, ART-15B, ART-100, ART-101, ART-102, and ART-103. Each course is not repeatable. Students will be charged a lab fee of \$40 to cover clay, glaze and other items.

ASTRONOMY

AST-1. Introduction to Astronomy (3)

Lec 54 Hrs

A comprehensive survey of modern astronomy with an emphasis on the scientific method and the interpretation of astronomical data in discovering the nature of the solar system and the universe. Planetarium demonstrations are included. Suitable for students from all majors and acceptable for physical science credit at any state college or university. Lab requirement can be satisfied when combined with AST 1L.

[CSU; UC; CSU GE, AREA B1; IGETC, AREA 5]

AST-1L. Astronomy Laboratory (1)**Corequisite:** AST-1**Other:** Completion of or concurrent enrollment in AST-1 is required.**Lab** 54 Hrs

Laboratory course in astronomy that uses a combination of experiments, NASA data, and computer software to teach the basic principles and methods of modern astronomy. Students will make their own measurements and use astronomical data to identify objects in the night sky and to learn about the properties of light, telescopes, stars, and galaxies. A field trip to an observatory and extensive use of the digital Planetarium is included.

[CSU; UC; CSU GE, AREA B3; IGETC, AREA 5]

BIOLOGY

BIO-1. Fundamental Biological Concepts (5)**Prerequisite:** Intermediate Algebra or equivalent or placement beyond, CHM-1A and BIO-101 with a grade of "C" or better.**Lec** 54 Hrs; **Lab** 108 Hrs

An introduction to the study of the structure and function of living systems with an emphasis on the molecular and cellular levels of organization and the roles of DNA, genetics and evolution as the unifying concepts of biology. Recommended for biology, pre-medical, pre-dental and pre-veterinary majors.

[CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5]**[C-ID BIOL 190] [C-ID BIOL 135S with BIO-2 and BIO-3]****BIO-2. General Zoology (5)****Prerequisite:** Intermediate Algebra or equivalent or placement beyond, BIO-101 with a grade of "C" or better.**Advisory:** A college-level biology course.**Lec** 54 Hrs; **Lab** 108 Hrs

An introduction to the study of animals and their diversity of form and function. An emphasis will be made on comparative morphology, physiology and behavior and on the application of evolutionary and ecological principles to animal populations. This course will also explore the historical development of animal sciences and current innovations in zoological research. Laboratory and field activities will introduce students to methods of systematics and ecological study and to the diversity of the animal groups.

[CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5]**[C-ID BIOL 140 with BIO-3]****[C-ID BIOL 135S with BIO-1 and BIO-3]****BIO-3. General Botany (5)****Prerequisite:** Intermediate Algebra or equivalent or placement beyond, BIO-101 with a grade of "C" or better.**Advisory:** A college-level biology course.**Lec** 54 Hrs; **Lab** 108 Hrs

An introduction to the principles of plant biology with emphasis on their structure, reproduction, genetics, taxonomy and systematics, physiology, and ecology. Required for biology majors.

[CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5]**[C-ID BIOL 155] [C-ID BIOL 140 with BIO-2]****[C-ID BIOL 135S with BIO-1 and BIO-2]****BIO-5. Human Anatomy (4)****Advisory:** Eligibility for ENG-1A or ENG-1AX (C-ID ENGL 100) Intermediate Algebra or equivalent or placement beyond (C-ID MATH 110, 120, 130, 140, 150, 151), Completion of general biology course (Non-majors), or one-semester anatomy and physiology course or medical terminology course, with a grade of "C" or better, is strongly recommended before attempting BIO-5.**Lec** 54 Hrs; **Lab** 54 Hrs

A survey of the structure of the human body including the integumentary, skeletal, muscular, digestive, nervous, lymphatic, cardiovascular, endocrine, respiratory, urinary, and reproductive systems. The course is designed primarily for physical education/kinesiology and nursing majors but will benefit any student interested in the form and function of the human body.

[CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5]**[C-ID BIOL 110B]****BIO-6. Introductory Physiology (3)****Prerequisite:** BIO-1 or BIO-5 and CHM-1A or CHM-22 or CHM-60 or completion of any college-level chemistry course. All prerequisites must be completed with a grade of "C" or better.**Lec** 54 Hrs

An introduction to the study of the structure and function of human systems with an emphasis on the contribution of cellular and tissue structure and function to homeostasis. Recommended for health-related certificate programs, registered nursing, biology, physical education, pre-med, pre-dental, and pre-veterinary majors.

[CSU; UC; CSU-GE, AREA B2; IGETC, AREA 5]**[C-ID BIOL 120B with BIO 6I]**

COURSE LISTINGS

BIO-6L. Physiology Laboratory (2)

Corequisite: BIO-6

Lab 108 Hrs

An introduction to the laboratory study of the structure and function of human systems with an emphasis on the collection and analysis of chemical and physical data which relate to the concept of homeostasis in the human body. Recommended for health-related certificate programs, physical education, biology, pre-med, pre-dental, and pre-veterinary majors.

[CSU; UC; CSU-GE, AREA B3; IGETC, AREA 5]

[C-ID BIOL 120B with BIO 6]

BIO-10. General Biology (4)

Lec 54 Hrs; **Lab** 54 Hrs

An introduction to the principles of general biology with emphasis on diversity, morphology, cellular and organismal physiology, heredity, evolution, and ecology of living organisms. This is a general education course intended for students not majoring in biology. If this course is taken online, proctored exams will be required, either at Hartnell College or at an approved remote site. If the exam is to be administered offsite, it is the student's responsibility to arrange for the site and proctor, provide contact information for the proctor to the instructor, and obtain consent for this arrangement from the instructor prior to the exam date.

[CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5]

BIO-11. Introductory Human Anatomy and Physiology (4)

Lec 54 Hrs; **Lab** 54 Hrs

An introduction to the biology of the human being. The structure and function of the organ systems of the human body, and their contributions to homeostasis will be emphasized in lecture and laboratory.

[CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5]

BIO-12. Introduction to Genetics (3)

Advisory: Completion of one-year of beginning algebra (high school or college) with a grade of "C" or better.

Pass/No Pass Option

Lec 54 Hrs

An introduction to the fundamental principles of genetics and heredity. Students will investigate the transmission of traits from one generation to the next, the molecular structure of genes and gene products, the regulation of gene expression, and factors affecting gene frequencies in populations. Students will also analyze the social, legal and ethical implications of advances in genetic technology as applied to medicine and biotechnology. The course is designed for all students interested in the science and application of genetics.

[CSU; UC; CSU-GE, AREA B2; IGETC AREA 5]

BIO-18. Introduction to Pathophysiology (3)

Prerequisite: BIO-11 with a grade of "C" or better or BIO-6, BIO-6L, and BIO-5 with a grade of "C" or better.

Lec 54 Hrs

Introduction to concepts and principles of disease processes of the human body. The course will utilize the format of detection, diagnosis, treatment, etiology, pathogenesis, and prevention of diseases in all major body systems.

[CSU; UC; CSU-GE, AREA B2; IGETC, AREA 5]

BIO-20. Field Biology/Natural Science (4)

Pass/No Pass Option

Lec 54 Hrs; **Lab** 54 Hrs

An introduction to the natural history of bacteria, fungi, protists, plants and animals. Identification, classification, life histories, and ecological relationships will be investigated. Recommended for students interested in outdoor biological studies.

[CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5]

BIO-27. Principles of Microbiology (4)

Prerequisite: CHM-1A or CHM-22 or CHM-60 with a grade of "C" or better.

Advisory: Completion of any college-level biology course with a grade of "C" or better. For nursing students, completion of coursework in human anatomy and physiology (i.e., BIO-5 and BIO-6/6L) is strongly recommended.

Lec 54 Hrs; **Lab** 54 Hrs

A general introduction to the study of the microbial world, including bacteria, viruses, fungi, algae, protozoa, and helminths. Aspects of microbiology important in health, sanitation, ecology, food processing and biotechnology are emphasized in lecture and laboratory. This course is designed for students majoring in biological sciences, nursing, and other health science majors.

[CSU, UC; CSU-GE, AREA B2, B3; IGETC, AREA 5]

BIO-30. Marine Biology (4)

Pass/No Pass Option

Lec 54 Hrs; **Lab** 54 Hrs

An introduction to the study of marine life. Emphasis on the fundamentals of biology, with a survey of the prokaryotes, algae, invertebrates, vertebrates and their physiology and ecology. Recommended for non-science majors who desire a general knowledge and appreciation of life in the sea.

[CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5]

BIO-42. Human Biology (3)

Lec 54 Hrs

Introduction to human biology, including biochemistry, cytology, histology, organ systems, and genetics. Behaviors related to health and diseases are presented, as well as advances in biotechnology and the impact of humans on the environment. Will benefit non-major as well as students interested in health careers.

[CSU; UC; CSU-GE, AREA B2, E; IGETC, AREA 5]

BIO-47. Ecology (4)*Lec 54 Hrs; Lab 54Hrs*

Introduction to the relationships between organisms and their environments. Emphasis on habitats, organismal biology, energy flow, nutrient cycles, natural populations, communities, and human interactions with natural ecosystems. Field trips will be scheduled. Recommended for anyone who desires a general knowledge and appreciation of ecosystems. Students should consult transfer agreements to determine whether the course fulfills a requirement for an environmental studies program at a specific university.

[CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5]**BIO-48. Environmental Science (3)***Lec 54 Hrs*

An introductory and multidisciplinary study of our environment from a scientific perspective, focusing on physical, chemical, and biological processes within the Earth system. Emphasis is on the impact of human population and policies in regard to air, water, land use, resources, and waste management and the role of science in finding sustainable solutions. If this course is taken online, proctored exams will be required, either at Hartnell College or at an approved remote site. If the exam is to be administered offsite, it is the student's responsibility to arrange for the site and proctor, provide contact information for the proctor to the instructor, and obtain consent for this arrangement from the instructor prior to the exam date.

[CSU; UC; CSU-GE, AREA B2; IGETC, AREA 5]**[C-ID ENVS 100]****BIO-48L. Environmental Science Laboratory (1)***Corequisite: BIO-48***Pass/No Pass Option***Lab 54 Hrs*

Introduction to the study of the environment through hands-on field and laboratory experiments. Emphasis on ecological principles, populations, natural resources, energy use, and lifestyle choices.

[CSU; UC; CSU-GE, AREA B3; IGETC, AREA 5]**BIO-101. Foundations of Biology (1)****Pass/No Pass Option***Lec 9 Hrs; Lab 27 Hrs*

A brief but intensive introduction to essential laboratory skills used in the study of biology; basic concepts in arithmetic, chemistry, and classification of living organisms; and review of study skills. Designed to help students succeed in their study of biology. Students must successfully complete this course before attempting their first biology major class.

BUSINESS

BUS-1A. Financial Accounting (3)*Advisory: Completion of BUS-152 and BUS-32. Intermediate Algebra or equivalent or placement beyond.***Pass/No Pass Option****Fall/Spring***Lec 54 Hrs*

This is the study of accounting as an information system, examining why it is important and how it is used by investors, creditors, and others to make decisions. The course covers the accounting information system, including recording and reporting of business transactions with a focus on the accounting cycle, the application of generally accepted accounting principles, the financial statements, and statement analysis. Includes issues relating to asset, liability, and equity valuation, revenue and expense recognition, cash flow, internal controls, and ethics.

[CSU; UC] [C-ID ACCT 110]**BUS-1B. Managerial Accounting (3)***Prerequisite: BUS-1A with a grade of "C" or better.***Pass/No Pass Option****Fall/Spring***Lec 54 Hrs*

This is the study of how managers use accounting information in decision-making, planning, directing operations and controlling. Focuses on cost terms and concepts, cost behavior, cost structure and cost-volume-profit analysis. Includes issues relating to cost systems, cost control, profit planning, and performance analysis in manufacturing and service environments.

[CSU; UC] [C-ID ACCT 120]**BUS-18. Legal Environment of Business (4)****Pass/No Pass Option****Fall/Spring***Lec 72 Hrs*

Provides the student with a comprehensive understanding of the law and its relationship to business. An introduction to the sources of law, the legal system, the court system, antitrust law, administrative agencies, and business ethics. Content includes business torts and crimes, contracts, agency, employment discrimination, business organization formats, the legal aspects of partnerships and corporations, securities regulation, and domestic and international governmental relations.

[CSU; UC] [C-ID BUS 120]

COURSE LISTINGS

BUS-32. Introduction to Business (3)

Pass/No Pass Option

Fall/Spring

Lec 54 Hrs

A survey in business providing a multidisciplinary examination of how culture, society, economic systems, legal, international, political, financial institutions, and human behavior interact to affect a business organization's policy and practices within the U.S. and a global society. Demonstrates how these influences impact the primary areas of business including: organizational structure and design; leadership, human resource management, organized labor practices; marketing; organizational communication; technology; entrepreneurship; legal, accounting, financial practices; the securities market; and therefore, affect a business' ability to achieve its organizational goals.

[CSU; UC; CSU-GE, AREA D2] [C-ID BUS 110]

BUS-34. Entrepreneurship: Small Business Management (3)

Pass/No Pass Option

Lec 54 Hrs

Introduces students to the risks and rewards of entrepreneurship. Illustrates the functions of small business management by surveying the concepts of organizing, planning, financing, staffing, marketing and operations. Students will engage in the process of developing a business plan to build practical knowledge and skills to effectively organize the resources required to own and/or manage a small business.

[CSU]

BUS-42. Electronic Spreadsheets (3)

Pass/No Pass Option

Fall Only

Lec 36 Hrs; Lab 54 Hrs

A full-featured spreadsheet application course offering core and advanced concepts. Emphasis is on creating formulas, using relative and absolute references, editing and formatting, working with templates and chart wizards, using IF functions, sorting and filtering records, creating pivot tables, and integrating with MS Office Suite programs (MS Word).

[CSU]

BUS-43. Business Information Systems and Information Literacy (4)

Pass/No Pass Option

Fall/Spring

Lec 54 Hrs; Lab 54 Hrs

Examination of business information systems and their role in business. Focus on business information systems, database management systems, networking, e-commerce, ethics and security, information processing cycle, and associated hardware and software. Skill development in the use of business application software and the use of technology tools for research. Application of these concepts and methods through hands-on projects developing computer-based solutions to business problems. Not open to students who have completed CSS-43 with a grade of "C" or better.

[CSU; UC] [C-ID BUS 140]

BUS-50. Introduction to PC Applications (4)

Advisory: *Keyboarding speed of 25 words a minute recommended*

Pass/No Pass Option

Fall/Spring

Lec 63 Hrs; Lab 27 Hrs

An introduction to computer hardware, operating systems, application software (word processing, spreadsheet, database, presentation, and e-mail), and the Internet. This course is designed for students with limited or no knowledge of computer applications. Not open to students who have completed BUS-109 or CSS-109 with a grade of "C" or better.

[CSU; UC]

BUS-100. Introduction to Basic Computer Applications (0.5 -2)

Pass/No Pass Only

Lab 24-108 Hrs

Provides instruction on computer application programs in a lab environment. Designed to develop and improve computer skills in word processing, spreadsheet, presentation software, and database management using Microsoft Office. Students will consult with an instructor regarding the scheduling of their hours and the computer application skills they wish to acquire and/or improve. This course may be taken for up to a total of 2 units.

BUS-110A. Beginning Keyboarding (1)

Pass/No Pass Only

Lab 54 Hrs

Introduction to keyboarding and basic techniques using the touch system on the computer. Not open to students who have completed BUS 110, 111, 140A, or 140B with a grade of "C" or better.

BUS-110B. Beginning Formatting and Document Processing (1)

Corequisite: BUS-110A

Pass/No Pass Option

Lab 54 Hrs

Basic document processing using the touch system. Emphasis on speed and accuracy on straight copy. Includes proper formatting procedures in the preparation of business letters, memos, tables, and reports using a word processing program. Not open to students who have completed BUS 110.

BUS-111A. Intermediate Keyboarding (1)

Prerequisite: BUS-110A with a grade of "C" or better

Pass/No Pass Option

Lab 54 Hrs

Continued improvement of keyboarding speed and accuracy by "touch".

BUS-111B. Intermediate Formatting and Document Processing (2)

Prerequisite: BUS-110 with a grade of "C" or better or

BUS-110B with a grade of "C" or better

Pass/No Pass Option

Spring Only

Lec 18 Hrs; Lab 54 Hrs

Continued development of formatting techniques used in business documents (letters, reports, tables, and forms). Emphasis on organizing materials, establishing work priorities, and determining efficient office.

BUS-135 Professional Office Skills (4)

Fall Only

Lec 72 Hrs;

Comprehensive introduction to modern office and personal skills; emphasis on communication, teamwork, problem solving, and professionalism; includes personal and professional finance management.

BUS-136 Introduction to Personal Management Software (1)

Pass/No Pass Option

Spring Only

Lab 54 Hrs

Introduces personal management software and use of features. Topics include management of e-mail, organization of contacts, creation and scheduling of events using the calendar, and creating and managing tasks for personal and business use.

BUS-140A. Keyboarding Speed and Accuracy (0.5)

Advisory: BUS-110 and/or BUS-110A.

Pass/No Pass Option

Lab 27 Hrs

Emphasizes speed and accuracy improvement on straight-copy material. Students may enroll at any time during the first half of the semester. Students will progress at an individual pace.

BUS-140B. Keyboarding Speed and Accuracy (0.5)

Prerequisite: BUS-140A with a grade of "C" or better.

Pass/No Pass Option

Lab 27 Hrs

Continuation in the development of keyboarding skills focusing on speed and accuracy improvement on straight-copy material. Students may enroll at any time during the first half of the semester. Student will progress at an individual pace.

BUS-150.15. Word Processing (3)

Advisory: Keyboarding speed of 25 words a minute recommended.

Pass/No Pass Option

Spring Only

Lec 36 Hrs; Lab 54 Hrs

The use of word processing software features and commands to create, design, and edit business documents using a computer.

BUS-152. Introduction to Accounting (4)

Pass/No Pass Option

Fall Only

Lec 63 Hrs; Lab 27 Hrs

This course introduces the basic accounting cycle for a service business. This is a slow-paced introduction to basic bookkeeping transactions. These transactions are introduced, first in a manual format, and then a review of the basics is accomplished on the computer. This course does not meet the accounting requirement for business transfers.

BUS-154. Computerized Accounting (3)

Prerequisite: BUS-1A or BUS-152 with a grade of "C" or better.

Pass/No Pass Option

Spring Only

Lec 36 Hrs; Lab 54 Hrs

Provides instruction in computer assisted accounting, including the simulation of the accounting cycle. Topics include general ledger, accounting receivable, accounts payable, transactions and reports, financial statements analysis, depreciation, payroll, and program setup.

COURSE LISTINGS

BUS-172. Business Machine Calculations (1)

Pass/No Pass Option

Lab 54 Hrs

Use of the 10-key machine calculator to develop speed and accuracy by touch and proficiency in solving practical business problems.

BUS-173. Filing Procedures & Records Management (3)

Pass/No Pass Option

Spring Only

Lec 54 Hrs

Introduction to filing procedures and rules; emphasizes principles and practices of effective records management for manual and computerized records systems.

BUS-175. Business Communications (3)

Advisory: *Minimum keyboarding skill of 25 words per minute is recommended.*

Pass/No Pass Option

Fall Only

Lec 54 Hrs

Development and adaptation of communication skills in business. Emphasizes listening, speaking, and the public relations aspect of business correspondence in the preparation of various business documents.

BUS-177. Proofreading and Editing Skills (3)

Pass/No Pass Option

Fall Only

Lec 54 Hrs

Proofreading and text editing skill development; with emphasis on proficient use of a reference manual and the development of Standard Business English vocabulary usage.

BUS-190. Career Management (2)

Pass/No Pass Option

Spring Only

Lec 36 Hrs

Emphasis on career planning, the job application process and documents, job application skills, and career planning.

BUS-194. Human Relations in Business (3)

Pass/No Pass Option

Fall Only

Lec 54 Hrs

The study of the behavior of individuals and groups in organizations for the purpose of satisfying both organizational goals and personal goals.

BUS-199. Introduction to Online Learning (1)

Pass/No Pass Only

Fall Only

Lec 18 Hrs

Designed to introduce to students to the online learning environment and the tools used in online learning. In addition, students will learn basic technical and communication skills needed to succeed in online learning.

BUS-200. Essential Computer Skills (0.5 - 2)

Pass/No Pass Only

Lab 27-108 Hrs

Provides introductory, entry-level computer skills instruction in a lab environment. Designed to develop and improve computer skills in one-half unit modules in computer concepts, terminology and Windows; Internet and Email basics; file and disk management basics; and keyboarding basics. Students will consult with an instructor regarding the scheduling of their hours and the computer skills they wish to acquire and/or improve. This course may be taken multiple times, up to a maximum of 2 units, in order to complete all four content areas.

BUS-210. Computers for ESL Students (0.5)

Pass/No Pass Only

Lab 27 Hrs

Focuses on introductory computer concepts for ESL students. Topics covered include the Basics of Computers, Windows Concepts, file management, word processing, email and the Internet. Students will progress at an individual pace. This course does not meet the Business Office Technology certificate or degree requirements.

BUS-600. Beginning Keyboarding (0)

Pass/No Pass Only

Lab 54 Hrs

Introduction to the computer keyboard and the development of basic keyboarding skills using the touch method with a focus on keyboarding techniques.

BUS-605. Basic Computer Concepts (0)

Pass/No Pass Only

Lab 27 Hrs

An introduction to basic computer concepts and entry-level computer skills. Focus is on hardware, software, basic terminology, and file management. Designed for beginners who desire to learn how to work in the Windows environment.

BUS-610. Introduction to the Internet and Email (0)**Pass/No Pass Only****Lab 27 Hrs**

This introductory course provides the basic applications of the internet and electronic mail. Topics include browsing and researching on the World Wide Web using various search engines, popular websites, tips and techniques to obtain specific information. Email basics include the use of a web-based account, sending/receiving messages and attachments, email etiquette, and email management.

CHEMISTRY

CHM-1A. General Chemistry I (5)

Prerequisite: *Intermediate Algebra or equivalent or placement beyond, Students may complete a prerequisite clearance process in lieu of CHM-22.*

Lec 54 Hrs; Lab 108 Hrs

CHM-1A 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. Basic principles of chemistry: atomic structure and quantum theory, periodic properties, nomenclature, chemical reactions, solutions, stoichiometry, thermochemistry, gas laws, states of matter, bonding and molecular structure.

[CSU; UC; CSU-GE, AREA B1, B3; IGETC, AREA 5]**[C-ID CHEM 110] [C-ID CHEM 120S with CHM-1B]****CHM-1B. General Chemistry II (5)**

Prerequisite: *CHM-1A with a grade of "C" or better.*

Lec 54 Hrs; Lab 108 Hrs

CHM-1B is the second semester of a one-year course in chemistry intended for majors in the natural sciences (chemistry, biochemistry, biology, physics, pre-medicine), mathematics, and engineering. A continuation of CHM-1A: organic chemistry, descriptive chemistry, the solution process and solution properties, equilibrium, acids and bases, thermodynamics, kinetics, electrochemistry, nuclear chemistry.

[CSU; UC; CSU-GE, AREA B1, B3; IGETC, AREA 5]**[C-ID CHEM 120S with CHM-1A]****CHM-12A. Organic Chemistry I (5)**

Prerequisite: *CHM-1B with grade of "C" or better.*

Lec 72 Hrs; Lab 54 Hrs

The first semester of a one-year course in organic chemistry. Intended for majors in the natural sciences (chemistry, biochemistry, biology, pre-medicine, pre-dental, pre-veterinary, pre-pharmacy) and chemical engineering. Principles and concepts of organic chemistry: bonding, structure, structure elucidation using modern instrumental methods, nomenclature, stereochemistry, and reactions, reaction mechanisms, and synthesis of the following functional groups: alkanes, alkenes, alkynes, alcohols, alkyl halides, dienes, aromatic compounds, and selected biomolecules.

[CSU; UC; CSU-GE, AREA B1, B3; IGETC, AREA 5]**[C-ID CHEM 150] [C-ID CHEM 160S with CHM-12B]****CHM-12B. Organic Chemistry II (5)**

Prerequisite: *CHM-12A with a grade of "C" or better.*

Lec 72 Hrs; Lab 54 Hrs

The second semester of a one-year course in organic chemistry. Intended for majors in the natural sciences (chemistry, biochemistry, biology, pre-medicine, pre-dental, pre-veterinary, pre-pharmacy) and chemical engineering. Principles of organic chemistry: bonding, structure, structure elucidation using modern instrumental methods, nomenclature, stereochemistry, and reactions, reaction mechanisms, and synthesis of the following functional groups: alcohols, ethers, carbonyl compounds, carboxylic acids and derivatives, amines, phenols, and selected biomolecules.

[CSU; UC; CSU-GE, AREA B1, B3; IGETC, AREA 5]**[C-ID CHEM 160S with CHM-12A]****CHM-22. The Science of Chemistry (4)**

Prerequisite: *Beginning Algebra or equivalent or placement beyond.*

Lec 54 Hrs; Lab 54 Hrs

A survey of the fundamental concepts of chemistry: measurement; classification of matter, atomic structure, the periodic table, chemical bonding, nomenclature, chemical equations and stoichiometry, gas laws, solutions, reactions in aqueous solution, acid and bases, oxidation-reduction, nuclear chemistry. Designed for students with no prior background in chemistry.

[CSU; UC; CSU-GE, AREA B1, B3; IGETC, AREA 5]**[C-ID CHEM 101]****CHM-23. Organic and Biological Chemistry for Health Sciences (4)**

Prerequisite: *CHM-22 with a grade of "C" or better or CHM-1A with a grade of "C" or better*

Lec 54 Hrs; Lab 54 Hrs

An in-depth study of the principles of organic and biological chemistry related to the health science field. Appropriate for most baccalaureate programs in nursing, dental hygiene, physical therapy, physical education, and health sciences generally. Does not meet chemistry requirement for premedicine or predentistry majors.

[CSU; CSU-GE, AREA B1, B3]

CHM-60. Principles of Chemistry (4)

Advisory: *Beginning Algebra or equivalent or placement beyond.*

Lec 54 Hrs; **Lab** 54 Hrs

Designed for majors in registered nursing, animal health technology, physical education, peace officer training, and general education. Atomic structure and its relationship to chemical formulas, equations and equation writing, solutions, the covalent bond and organic compounds, aspects of biochemistry, carbohydrates, proteins and fats.

[CSU; CSU-GE, AREA B1, B3]

COMMUNICATION STUDIES

COM-1. Introduction to Public Speaking (3)

Advisory: *Eligibility for ENG-1A or ENG-1AX*

All Terms

Lec 54 Hrs

Covers theory and techniques of public speaking in democratic society. Discovery, development, and criticism of ideas in public discourse through research, reasoning, organization, composition, presentation, and evaluation of various types of speeches. These speeches include extemporaneous, impromptu, informative and persuasive speeches supervised and evaluated by a faculty member and are presented in front of a live audience for all modalities (face-to-face, hybrid or online). Creating visual aids using emerging technologies will be required.

[CSU; UC; CSU-GE, AREA A1; IGETC, AREA 1]

[C-ID COMM 110]

COM-2. Argumentation and Debate (3)

Advisory: *Eligibility for ENG-1A or ENG-1AX*

Spring Only

Lec 54 Hrs

Introduces skills in critical analysis and query to promote advocacy. Students will analyze and evaluate oral and written arguments by identifying fallacies, testing evidence and evidence sources, advancing reasoned positions, and defending and refuting arguments. This will result in one-on-one debates presented in front of a live audience and evaluated by a faculty member. Topics will focus on domestic and international current events, with an emphasis on social justice issues. Not open to students having completed COM 20 with a "C" or better.

[CSU; UC; CSU-GE, AREAS A1, A3; IGETC, AREA 1C]

[C-ID COMM 120]

COM-3. Survey of Human Communication (3)

Advisory: *Eligibility for ENG-1A or ENG-1AX*

Fall/Spring

Lec 54 Hrs

This introductory communication course focuses on the basic foundations of interpersonal communication, small group communication and public speaking. Students will be introduced to the breadth of the communication discipline. Additionally, students will examine and practice human communication principles and theories, at a basic level, to develop critical thinking and communication competencies in a variety of contexts. The student will be responsible for creating and presenting three public speeches, including extemporaneous or impromptu, informative and persuasive. These speeches are supervised and evaluated by a faculty member and are presented in front of a live audience for all modalities (face-to-face and hybrid).

[CSU; UC CSU-GE, AREA A1; IGETC, AREA 1]

[C-ID COMM 115]

COM-4. Intercultural Communication (3)

Advisory: *Eligibility for ENG-1A or ENG-1AX*

Fall/Spring

Lec 54 Hrs

Introduces intercultural communication in domestic and global contexts. Students will study intercultural communication among people in the United States as well as various cultures around the world. Emphasis is placed on the influence of cultures, languages, and social patterns on group member relationships among themselves and with members of different ethnic and cultural groups. Theory and knowledge of effective communication within and between cultures will be discussed. Not open to students who have completed SPE-35, COU-35 or COM-35 with a "C" or better.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]

[C-ID COMM 150]

COM-5. Professional & Leadership Communication (3)

Advisory: *Eligibility for ENG-1A or ENG-1AX*

Fall Only

Lec 54 Hrs

Introduction to communication in organizational, career, and leadership contexts. Areas of study include communication theory in dyads, small group, leadership styles, leaderless groups, sexual harassment, meeting organization, problem solving and negotiations, interviewing, and cultural issues in the workplace. Students will give several business-oriented presentations in front of a live audience and will be assessed by a faculty member.

[CSU; CSU-GE, AREA A1]

COM-8. Interpersonal Communication (3)

Advisory: Eligibility for ENG-1A or ENG-1AX

Fall/Spring

Lec 54 Hrs

This course explores interpersonal communication elements including listening, perception, language usage, non-verbal communication, and conflict management. Students will learn new skills to overcome communication barriers and enhance their interpersonal relationships, including friendship, family, romantic, small group and workplace. Not open to students who have completed SPE-8 with a grade of "C" or better.

[CSU; UC; CSU-GE AREA D; IGETC, AREA 4]

[C-ID COMM 130]

COM-700. Interpersonal Communication for Healthcare Professionals (3)

Prerequisite: Admission to the Bachelor of Science in Respiratory Care

Lec 54 Hrs

Designed for upper division students in the Respiratory Care baccalaureate program. Focused on collaborative and culturally sensitive communication with colleagues and patients to promote dynamic and engaging healthcare related professional settings. Exploration of self-awareness, listening, non-verbal communication, communication environment, and communication misperceptions will guide learning. An emphasis on culturally competent communication will help students acknowledge and dismantle biases that hinder the patient-caregiver relationship.

COMPUTER SCIENCE AND INFORMATION SYSTEMS

CSS-1. Intro to Computer Science & Programming Fundamentals (4)

Prerequisite: Intermediate Algebra or equivalent or placement beyond and Eligibility for ENG-1A or ENG-1AX

Pass/No Pass Option

Lec 54 Hrs; Lab 54 Hrs

Introduces the fundamental concepts of procedural programming. Topics include data types, control structures, functions, arrays, files, and the mechanics of running, testing, and debugging. Hands-on experiences with a full range of computer science topics. Demonstrate practical use of computers and the scope and substance of the computer science discipline. Appropriate for liberal arts majors and students preparing for CSS programs. (The first course in a three-course programming sequence.)

[CSU; UC] [C-ID COMP 112] [C-ID ITIS 130]

CSS-2A. Object Oriented Programming (4)

Prerequisite: CSS-1 with a grade of "C" or better.

Pass/No Pass Option

Lec 54 Hrs; Lab 54 Hrs

Introduces the concepts of object-oriented programming, focusing on the definition and use of classes along with the fundamentals of object-oriented design. Other topics include an overview of programming language principles, analysis of algorithms, basic searching and sorting techniques, and an introduction to software engineering issues. Appropriate for computer science and computer engineering majors. (The second course in a three-course programming sequence.)

[CSU; UC] [C-ID COMP 122]

CSS-2B. Data Structures and Algorithms (4)

Prerequisite: CSS-2A with a grade of "C" or better.

Pass/No Pass Option

Lec 54 Hrs; Lab 54 Hrs

Introduces application of software engineering techniques to the design and development of large programs, data abstraction and structures and associated algorithms. Topics include recursion and fundamental data structures (including stacks, queues, linked lists, and hash tables). Appropriate for computer science and computer engineering majors. Final course in a 3-course programming sequence.

[CSU; UC] [C-ID COMP 132]

CSS-3. Computer Architecture and Assembly Language Programming (4)

Prerequisite: CSS-1 with a grade of "C" or better.

Pass/No Pass Option

Fall Only

Lec 54 Hrs; Lab 54 Hrs

Introduces students to the organization and architecture of computer systems, and assembly language programming. Includes study and application of digital logic, data representation and Assembly level organization. Appropriate for computer science and computer engineering majors.

[CSU; UC] [C-ID COMP 142]

CSS-4. Programming for Scientists and Engineers (4)

Prerequisite: MAT-3A with a grade of "C" or better.

Advisory: CSS-1 and EGN-1

Lec 54 Hrs; Lab 54 Hrs

Essentials of software development for science, engineering, and mathematical applications using a high-level programming language. Introduction to interface of software with the physical world, including the use of sensors in hardware system development. CSS-4 is identical to EGN-7. Not open to students who have completed EGN-7 with a grade of "C" or better. It is recommended that students majoring in Engineering enroll in EGN-7. Students in other STEM majors should enroll in CSS-4.

[CSU; UC; C-ID ENGR 120]

CSS-7. Discrete Structures (4)

Prerequisite: CSS-2A with a grade of "C" or better.

Advisory: MAT-25

Pass/No Pass Option

Spring Only

Lec 54 Hrs; Lab 54 Hrs

Introduction to the mathematical elements of computer science. Topics include propositional logic, predicate logic, sets, functions and relations, combinatorics, mathematical induction, recursion, algorithms, matrices, graphs, trees and Boolean logic. This course is recommended for students considering Computer Science and Computer/Software Engineering majors.

[CSU; UC] [C-ID COMP 152]

CSS-25. Multimedia Integration (3)

Pass/No Pass Option

Lec 36 Hrs; Lab 54 Hrs

A focus on the integration of various forms of media used to create a multimedia object. Basic concepts such as text, audio, video, and user interface will be examined. Technical and design principles will be covered. Students will develop the appropriate skill necessary to integrate and apply multiple applications to include online design, mobile devices, and multimedia projects.

[CSU]

CSS-26. Dreamweaver (4)

Pass/No Pass Option

Lec 54 Hrs; Lab 54 Hrs

A focus on the student's use of Dreamweaver, web authoring, and its accompanying components to construct complex web projects and its versatile uses for the Internet. Subjects to be covered are website design, content creation, and editing. Maintaining websites including JavaScript, image maps, mobile website design and other complex components of Dreamweaver and web authoring. Formerly CSS-126. Not open to students who have completed CSS-126 with a grade of "C" or better.

[CSU]

CSS-27. Project Management Using Microsoft Project (4)

Pass/No Pass Option

Lec 54 Hrs; Lab 54 Hrs

This course will teach students project management using a hands-on approach to working with clients using Microsoft Project. Students will learn to work collaboratively with peers from the beginning of a project to the final client sign-off of a project. Students will be involved in a step-by-step process that starts with defining project management, project planning, modification of existing projects, timeline creation, communications strategies, client relationships and project maintenance.

[CSU]

CSS-29. Programming for Multimedia (3)

Pass/No Pass Option

Lec 36 Hrs; Lab 54 Hrs

The course will introduce students to programming for multimedia. A brief history of programming and its uses in today's society will be discussed. Students will learn the basic concepts and components of programming for multimedia using scripting language. Technical and design ideas will be examined for each component of multimedia design. Students will develop the appropriate skill necessary to integrate programming into multimedia projects. Technical and design ideas will be examined for each component of multimedia programming, focusing on CSS, java scripting, and databases.

[CSU]

CSS-50. Introduction to Networks: CCNA 1 (4)

Advisory: CSS-169

Pass/No Pass Option

Lec 54 Hrs; Lab 54 Hrs

This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. By the end of the course, students will be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. This course prepares students for the Network+ certification exam. It is also the first course of a three-course sequence that prepares students the CCNA exam. Not open to students who have completed CSS 120A with a grade of "C" or better.

[CSU] [CID IT IS 150]

CSS-51. Switching Routing and Wireless Essentials: CCNA 2 (4)

Prerequisite: CSS-50 with a grade "C" or better.

Pass/No Pass Option

Lec 54 Hrs; Lab 54 Hrs

Describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. It is the second course of a three-course sequence that prepares students for the CCNA exam. Not open to students who have completed CSS 120B with a grade of "C" or better.

[CSU]

CSS-52. Enterprise Networking, Security, and Automation: CCNA 3 (4)

Prerequisite: CSS-51 with a grade "C" or better.

Pass/No Pass Option

Lec 54 Hrs; Lab 54 Hrs

Describes the architecture, components, and operations of routers and switches in a larger and more complex network. Students learn how to configure and troubleshoot routers and switches and resolve common issues with single and multi-area OSPF in both IPv4 and IPv6 networks. It is the third course of a three-course sequence that prepares students for the CCNA exam. Not open to students who have completed CSS 120D with a grade of "C" or better.

[CSU]

CSS-53. Computer Security Principles (4)

Advisory: CSS-169

Lec 54 Hrs; Lab 54 Hrs

Covers the essentials of computer and network security. Includes security objectives and the role of policy deployment while practicing to defend against network attacks. Additional topics: cryptography, public key infrastructure, standards and protocols, impact of physical security on network security, infrastructure security, remote access, wireless and instant messaging, intrusion detection and network baselines. Coverage of CompTIA's Security+ which focuses on best practices, roles, and responsibilities of security experts, is integral to the course. Not open to students who have completed CSS 122 with a grade of "C" or better.

[CSU]

CSS-54. Network Security Principles (4)

Advisory: CSS-50

Pass/No Pass Option

Lec 54 Hrs; Lab 54 Hrs

Provides an in-depth exploration of the essentials of computer network security. Configures and implements security tools and techniques to guard against network attacks, implement intrusion prevention, and manage secure networks. Examines networked systems and applications, analyzing how they must be designed, implemented, deployed, and maintained in a secure fashion. Not open to students who have completed CSS 123 with a grade of "C" or better.

[CSU]

CSS-55. Systems and Network Administration (4)

Advisory: CSS-169

Pass/No Pass Option

Lec 54 Hrs; Lab 54 Hrs

This course will provide a student with the knowledge and skills required to build, maintain, troubleshoot and support server hardware and software technologies. The student will be able to identify environmental issues; understand and comply with disaster recovery and physical / software security procedures; become familiar with industry terminology and concepts; understand server roles / specializations and interaction within the overall computing environment. Not open to students who have completed CSS 124 with a grade of "C" or better.

[CSU] [CID IT IS 155]

CSS-56. Storage Management and Virtualization (4)

Advisory: CSS-169

Pass/No Pass Option

Lec 54 Hrs; Lab 54 Hrs

An overview of storage management and management concepts and administration, including tasks and operations involved in the daily management and ongoing support of a network. Additionally, characteristics and limitations of current storage architectures is presented, paired with discussion and implementation in a virtualized environment. Hands-on experience is provided for familiarization with networking and virtualization configurations. Not open to students who have completed CSS 125 with a grade of "C" or better.

[CSU]

CSS-57. Introduction to UNIX/Linux (3)

Advisory: CSS-169

Pass/No Pass Option

Lec 45 Hrs; Lab 27Hrs

An introduction to UNIX/Linux Operating Systems. Provides a technical overview of file and directory manipulation, access permissions, process control, networking, security, shell commands and shell programming, including hands-on experience with commands, files and tools. Prepares students for the CompTIA's Linux+ certification.

[CSU, UC]

CSS-64. HTML 5 and CSS 3 - Web Development (4)

Pass/No Pass Option

Lec 54 Hrs; Lab 54 Hrs

Students will learn to leverage HTML 5 and CSS 3 to create modern, feature rich web content, by designing professional, eye-catching content. The student will develop and learn to enhance User Experience, UX, across all devices, from static websites, mobile devices and tablets. Students will apply best practices and use emerging standards for HTML markup language, CSS 3, and JavaScript programming to improve site performance, accessibility, and SEO. Students will use a variety of drag and drop, Canvas, SVG graphics, audio, and video to improve web content.[CSU]

COURSE LISTINGS

CSS-65. Introduction to iOS App Development (4)

Pass/No Pass Option

Lec 54 Hrs; Lab 54 Hrs

Students will learn to build basic mobile iOS applications using the iOS development environment. This hands-on class will use step-by-step instruction to guide students through tasks with real-life examples. Using practical applications and a variety of assignments, students will reinforce their understanding of programming logic and tools used for the iOS environment. This is a beginning course designed to familiarize the student with the iOS development environment.

[CSU]

CSS-74. WordPress for Websites (4)

Pass/No Pass Option

Lec 54 Hrs; Lab 54 Hrs

Students will learn the tools and methods of web design and production using content management programs like WordPress. Utilizing industry standard programs like WordPress for web development, students will learn a variety of techniques: writing for the web, utilizing images, publicizing for the internet, tracking visitors, customizing the look and feel of websites, managing spam, and exploring ecommerce. Students will apply good design principles for content management while replacing older websites with new enhanced content designed to engage users while adhering to W3C standards.

[CSU]

CSS-76. Android App Development Using Java (4)

Pass/No Pass Option

Lec 54 Hrs; Lab 54 Hrs

Students will learn to build robust mobile Android applications using Java. This hands-on class will use step-by-step instruction to guide students through tasks with real-life examples. Using practical applications and a variety of assignments students will reinforce their understanding of programming logic and Java tools for Android Studio. This is a beginning course designed to familiarize the student with the Android environment.

[CSU]

CSS-78. Mobile Game Design (4)

Pass/No Pass Option

Lec 54 Hrs; Lab 54 Hrs

Introduction to beginning game programming using mobile design. A brief history of game programming and its uses in today's society will be discussed. Students will learn the basic concepts and components of game programming to create fast, intense, 2D and 3D games for mobile platforms. They will also learn through a broadened landscape of social network gaming. Technical and design ideas will be examined for each component of game design. Students will develop the appropriate skill necessary to develop basic games for mobile technology.

[CSU]

CSS-84. Beginning Digital Cartooning in Adobe Animate (4)

Pass/No Pass Option

Lec 54 Hrs; Lab 54 Hrs

A hands-on approach to designing and developing basic digital cartoons in Adobe Animate. Students will be involved in a step-by-step process that starts with story boarding, basic animation principles, character design and development, and designing basic animation in Animate.

[CSU]

CSS-86. Adobe Animate (4)

Pass/No Pass Option

Lec 54 Hrs; Lab 54 Hrs

The course will focus on the skills necessary for the effective use of Adobe Animate. Students will create interactive websites, movies, applications for mobile devices and multimedia. Subjects to be covered are vector-based graphics, interactivity design, and basic animation techniques, audio and video, interactive media, action scripting, and movies and other complex ideas using Adobe Animate. Formerly CSS-127. Not open to students who have completed CSS-127 with a grade of "C" or better.

[CSU]

CSS-169. IT Essentials (4)

Pass/No Pass Option

Lec 54 Hrs; Lab 54 Hrs

An introduction and hands-on approach to the concepts and practices of how to install, set-up, and maintain a computer system. Topics covered include hardware, software, procedures, components and configuration for newly constructed and repaired computer systems. The class prepares students for the CompTIA's A+ certification.

CONSTRUCTION MANAGEMENT AND ARCHITECTURE

CMA-51. Introduction to Construction Management and Architecture (3)

Pass/No Pass Option

Fall Only

Lec 54 Hrs

Fundamental required core course for Construction Management and Architecture Program offers a comprehensive overview of the construction profession and summarizes areas within the industry. Course introduces specific essentials associated with the wide range of construction careers and technology, including construction processes, tools, skills, design, management, methods and materials, safety, required career education and training.

[CSU]

CMA-52. Construction Graphics (3)*Pass/No Pass Option**Fall Only**Lec 36 Hrs; Lab 54 Hrs*

Introduction to fundamental principles of comprehension, interpretation, and analysis of construction drawings, CAD prints, specifications, and digital building information models, including use of manual sketching and computer modeling techniques for construction communication. Students will perform basic scale, measurement, and dimensional calculations using instructor assigned problems.

[CSU]**CMA-53. Sustainable Construction Materials and Methods (3)***Pass/No Pass Option**Fall Only**Lec 54 Hrs*

Introduction to use of basic construction materials, methods, and systems incorporating current accepted construction industry principles for sustainability.

[CSU]**CMA-54. Introduction to Construction Estimating (3)***Pass/No Pass Option**Spring Only**Lec 54 Hrs*

Presents the art of estimating for purposes of construction bidding, by introducing and applying fundamental principles for quantity takeoffs and construction labor cost estimating. Spreadsheet construction estimates will be prepared in MS Excel for a wide range of common building materials, systems, and manufactured products. Students must possess basic computer skills. Instruction in necessary MS Excel skills included.

[CSU]**CMA-55. Introduction to Structural Design and Codes (3)***Pass/No Pass Option**Spring Only**Lec 36 Hrs; Lab 54 Hrs*

Introduction to California Building Code requirements and basic principles of structural design: loads, foundations, columns, beams, static determinate frames, lateral load resisting systems, moment frames, and diaphragms.

[CSU]**CMA-56. Basic Principles of Construction Project Accounting (3)***Pass/No Pass Option**Fall Only**Lec 54 Hrs*

Basic fundamental course introducing principles, methods, and standard industry practices specific to construction project accounting.

[CSU]**CMA-57. Construction Law and Contracts (3)***Pass/No Pass Option**Fall Only**Lec 54 Hrs*

Overview of legal principles, rights, duties, and responsibilities of participants in project design and construction, accepted methods of dispute resolution, historical patterns of reasoning governing choice of applicable law, application of law to facts and circumstances, industry standard contracts, contract formation and interpretation, California license, mechanics' lien, labor law, and risk management.

[CSU]**CMA-61. Construction Field Practice: Layout, Foundations and Framing (4)***Pass/No Pass Option**Fall Only**Lec 36 Hrs; Lab 108 Hrs*

Covers first phases of residential and light commercial construction processes with focus placed on layout, rough framing principles, techniques, and skills. Students will construct simple structures on campus from basic architectural plans, beginning with building layout surveying, forming foundations ground floor construction, including both raised foundations and slabs on grade; progressing through floor framing, walls, door and window openings, stairs, second floor framing; and concluding with framing flat and sloped roofs, hip, valley, gable, eave, and parapet details.

[CSU]**CMA-62. Construction Field Practice: Exterior and Interior Finish (4)***Pass/No Pass Option**Spring Only**Lec 36 Hrs; Lab 108 Hrs*

Covers the second phase of residential and light commercial construction processes with focus placed on installation of simple mechanical, electrical, and plumbing systems, installation of doors and windows, and completion of exterior and interior finishes for simple small structures on campus from basic architectural plans. After completion, students will deconstruct and salvage building materials and fixtures for recycling.

[CSU]

COURSE LISTINGS

CMA-63. Concrete and Masonry Technology (3)

Pass/No Pass Option

Summer Only

Lec 36 Hrs; Lab 54 Hrs

Fundamentals of the masonry and concrete industries, including residential, commercial, and civil field principles and practice, project layout, tools, materials, finishing, and sustainability issues.

[CSU]

CMA-64. Electrical Systems (3)

Pass/No Pass Option

Spring Only

Lec 36 Hrs; Lab 54 Hrs

An introductory study of electrical wiring techniques and practices used in both commercial and residential construction. Topics include safety, tools, principles, circuits, conductors, grounding, wiring, layout, lighting, codes and licenses. Energy-conserving products and solar electric installation topics are also discussed.

[CSU]

CMA-65. Plumbing and HVAC (3)

Pass/No Pass Option

Spring Only

Lec 36 Hrs; Lab 54 Hrs

Covers traditional plumbing and HVAC principles and skills such as piping materials and joining methods as well as innovative systems such as solar hot water and geothermal HVAC.

[CSU]

CMA-66. Introduction to Heavy Construction (3)

Pass/No Pass Option

Lec 54 Hrs

Provides a comprehensive overview of highway and other heavy construction. Emphasis is placed on communications, plans, specifications and grade control; equipment; below grade construction and earthmoving; plant operations; paving and structures. Prepares the student to pass the NCCER (National Center for Construction Education and Research) competency test for this level of instruction. Class will make a field visit to a highway construction job.

[CSU]

CMA-70. Architectural Design and Visual Communication I (3)

Advisory: CMA-81

Pass/No Pass Option

Fall Only

Lec 36 Hrs; Lab 54 Hrs

Fundamental issues, concepts, and processes involved in two- and three-dimensional architectural drawing and design are introduced. Emphasis is placed upon acquisition of architectural visualization and graphic skills necessary to solve architectural design problems. Students prepare and present design solutions in drawings, using freehand diagrams, gesture sketches, and hard-line drawings, in multi-view, paraline, and perspective systems. A range of techniques and media are employed to comprehend, generate and visually communicate three-dimensional forms, spaces, and environments in two-dimensional architectural drawings. Integration of traditional manual design methods is introduced in development and refinement of a digital three-dimensional architectural model. Students who have completed DRA 70 with a grade "C" or better are not allowed to take this course.

[CSU, UC]

CMA-71. Architectural Design and Visual Communication II (3)

Prerequisite: CMA-70 with a grade of "C" or better.

Pass/No Pass Option

Spring Only - Odd Years

Lec 36 Hrs; Lab 54 Hrs

Course will extend and add to competency achieved in two- and three-dimensional architectural drawing and design communication in CMA-70, using a variety of media including digital drawing and design tools. Drawing and design content will include architectural visual and experiential complexity, spatial definition, structural stability, color theory, shadow casting, digital model building, and representation of materials, transparency, and reflection. Formerly DRA-71. Not open to students who have completed DRA-71 with a grade of "C" or better.

[CSU]

CMA-72. Architectural Design and Visual Communication III (3)

Prerequisite: CMA-70 with a grade of "C" or better.

Pass/No Pass Option

Spring Only - Even Years

Lec 36 Hrs; Lab 54 Hrs

Covers a range of various media, including both manual and digital drawing and design tools used as part of architectural design and visual communication processes. The expressive qualities of architecture, communication design, diagramming, building analysis, site analysis, response to context, and accommodation of human activities will be explored. Students will create an annotated final architectural design presentation utilizing a 3D digital model. Formerly DRA-72. Not open to students who have completed DRA 72 with a grade "C" or better.

[CSU]

CMA-74. Industrial Print Reading (3)**Pass/No Pass Option****Fall Only****Lec 36 Hrs; Lab 54 Hrs**

Fundamentals of reading and interpreting drawings used in engineering, industry and manufacturing. Students will learn the principals of orthographic projection, technical sketching, applied geometry, orthographic projection with related graphic symbols and standards.

[CSU]**CMA-75. Engineering Drawing with SolidWorks (3)****Advisory: CMA-74****Pass/No Pass Option****Fall Only****Lec 36 Hrs; Lab 54 Hrs**

Introduces students to essential features of the SolidWorks 3D computer-aided design modeling application software. Students will construct parts, solid models, and assemblies, as well as generate orthographic drawings, add dimensions, and plot to produce engineering documentation packages.

[CSU; UC]**CMA-76. Computer-Aided Mechanical Drawing and Detailing (3)****Advisory: CMA-75****Pass/No Pass Option****Spring Only****Lec 36 Hrs; Lab 54 Hrs**

An advanced study of orthographic projection with precision dimensioning. Includes tolerance and fit, geometric tolerance, different types of sectional views, and fastening devices for manufacturing industries. Emphasis is placed on modern and applied drafting and methods established by the American National Standard Institute (ANSI). Computer aided drafting and design tools such as SolidWorks, Autodesk's Inventor or similar will be used. Formerly DRA-58. Not open to students who have completed DRA-58 with a grade of "C" or better.

[CSU]**CMA-81. Computer Aided Drafting and Design I (3)****Fall Only****Lec 36 Hrs; Lab 54 Hrs**

Introduces how to use AutoCAD to set up drawings and construct lines, circles, arcs, other objects, geometric shapes and constructions, and text. Students will use display and editing techniques, obtain information about their drawings, and work with drawing files. Also introduces recommended drafting standards to prepare technical drawings and also covers topics in basic dimensioning, parametric drafting, drawing layout, plotting, and creating sheet sets. Formerly DRA-52. Not open to students who have completed DRA-52 with a grade of "C" or better.

[CSU]**CMA-82. Computer Aided Drafting and Design II (3)****Prerequisite: CMA-81 with a grade of "C" or better.****Spring Only****Lec 36 Hrs; Lab 54 Hrs**

Builds on the knowledge acquired in CMA-81 Computer Aided Design I. Examines dimensioning, blocks and attributes, section views, multi-view layouts, annotative objects, external references, and sheet sets. Students will learn how to use AutoCAD advanced dimension tools, create section lines and graphic patterns, design symbols, attributes for multiple use, and isometric drawings. Explores the three-dimensional solid modeling and viewing capabilities of AutoCAD. Formerly DRA-53. Not open to students who have completed DRA-53 with a grade "C" or better.

[CSU]**CMA-83. Introduction to Revit Architecture (3)****Advisory: CMA-81****Pass/No Pass Option****Spring Only****Lec 36 Hrs; Lab 54 Hrs**

Covers the basics of Revit Architecture, from schematic design through construction documentation. Students will learn how to: set up a new building information model; create a basic floor plan; work with basic architectural elements (walls, doors, windows, floors, ceilings, roofs, curtain walls, stairs and railings); create sections, elevations and callouts views; add annotations including dimensions, text, tags, schedules and legends; and share designs by working in teams, creating architectural visualization renderings and plotting finished drawings. Formerly CMA-69. Not open to students who have completed CMA-69 with a grade of "C" or better.

[CSU]**CMA-84. Sustainable Construction Detailing (3)****Pass/No Pass Option****Spring Only****Lec 36 Hrs; Lab 54 Hrs**

Examination of residential and commercial building science principles for purposes of creation of three-dimensional construction details and product specifications to improve building sustainability and energy efficiency.

[CSU]**CMA-90. BIM and Digital Technology Tools for Construction (3)****Pass/No Pass Option****Fall Only****Lec 36 Hrs; Lab 54 Hrs**

Exploration of construction management technical products and software including Building Information Modeling (BIM) applications, Sketch-up, and project management applications. Students should be familiar with standard computer functions prior to enrolling in this course.

[CSU]

CMA-91. Construction Management and Scheduling (3)**Spring Only****Lec 54 Hrs**

Course presents principles of construction project management, development and application of project control methods for compliance with construction contracts and specifications, general and supplementary conditions, and Construction Specifications Institute (CSI) specifications, cost, schedule, quality, safety, and change orders. Introduces work breakdown structures, critical path method; planning, monitoring and updating of schedules utilizing computer scheduling software.

[CSU]

CO-OP WORK EXPERIENCE

CWE-99. General Cooperative Work Experience**Education (1.25 - 3.25)****Fall/Spring**

Cooperative Work Experience provides opportunities to acquire and demonstrate employer-desired work habits, attitudes, and skills in the workplace. Employment need not be related to the student's educational major and/or career goals. Students must be employed or participating in an internship or volunteering. Cooperative effort between student, supervisor, and instructor to develop measurable and achievable work objectives to broaden student's work experience. All new and returning students must complete required initial paperwork to start the program within the first two weeks of the course. Students must attend mandatory orientation at the start of the semester. Students may earn a maximum of 3.25 units per semester. Students must work 75 paid work hours or 60 non-paid work hours for each unit of credit. Paid hours per semester: 1 unit = 75 hours; 2 units = 150 hours; 3 units = 225 hours Unpaid hours per semester: 1 unit = 60 hours; 2 units = 120 hours; 3 units = 180 hours
[CSU]

Paid hours per semester: 1.25 unit = 75 hours; 2.25 units = 150 hours; 3.25 units = 225 hours Unpaid hours per semester: 1.25 unit = 60 hours; 2.25 units = 120 hours; 3.25 units = 180 hours

COUNSELING

COU-1. Student Success Seminar (3)**Advisory:** *Recommended for all first-time college students;***Pass/No Pass Option****All Terms****Lec 54 Hrs**

Course to assist first-time college students create greater success in college and in life. Students will develop self-awareness, self-responsibility and self-empowerment. Topics include campus and student support services and resources, learning strategies, study techniques, communication, critical thinking and problem solving, personal responsibility, career exploration, time management, educational planning, personal finances and stress management as it relates to mental health and mental well-being.

[CSU; UC, CSU-GE, AREA E]**COU-9 Planning for Transfer Success (1)****Advisory:** *Recommended for all college students with a transfer goal***Pass/No Pass Option****Fall/Spring****Lec 18 Hrs**

Designed to improve transfer knowledge and personal self-management. Introduces the tools necessary to increase academic and life success including college expectations, resources, requirements, and educational planning for transfer to a 4-year university. Students should note transfer applications require a fee, and some universities may have credit limitations for college success courses.

[CSU; UC]**COU-21. Student Skills for Success: Orientation (1)****Pass/No Pass Option****All Terms****Lec 18 Hrs**

An introduction to college, which provides new students with a better understanding of the college environment. Topics include: Hartnell College campus and community resources and services, learning strategies and educational planning. Students will have a better understanding of general education requirements, college policies, registration procedures, Certificate or Associate degree requirements and university transfer. (Students returning after a break in enrollment may petition to repeat this course).

[CSU]

COU-23. Student Skills for Success: Career Development (3)***Pass/No Pass Option******All Terms******Lec 54 Hrs***

Designed to assist students create and implement a plan for optimal career and personal development. Students will create a personal and career profile by assessing interests, aptitudes, skills, values, personality, and life and personal circumstances; as well as develop educational options and pathways that occur during a typical life span.

[CSU; CSU-GE, AREA E]**COU-27. Life Planning (3)*****Pass/No Pass Option******Fall/Spring******Lec 54 Hrs***

Comprehensive life and career planning course with a focus on key lifespan issues. Importance of relationship and appreciation of divergent cultural values will be explored. Action steps will be explored and identified to enable student's success and to select a college major.

[CSU; CSU-GE, AREA E]**COU-30. Career Interest and Ability Assessment (1)*****Pass/No Pass Option******Fall/Spring******Lec 18 Hrs***

An exploration of personal interests, aptitudes, experiences and values to assist students in their individual career decision-making process. Appropriate for students seeking to determine a major as well as adults in career transitions.

[CSU]**COU-38. Student Leadership in Higher Education (2)*****Pass/No Pass Option******Lec 36 Hrs******Spring Only – Odd Years***

Designed to prepare students for effective leadership roles on campus and in future organizational structures. Student government members, general club members, and any student interested in gaining valuable leadership skills will benefit.

[CSU]

EARLY CHILDHOOD EDUCATION

ECE-1. Principles and Practices of Teaching Young Children (3)***Lec 54 Hrs***

An examination of the underlying theoretical principles of developmentally appropriate practice in early care and education. Emphasis on the role of the early childhood educator, the importance of teacher-child relationships, and effective teaching strategies and environmental design for supporting development in young 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.

[CSU] [C-ID ECE 120]**ECE-2. Child, Family, School & Community Relations (3)*****Lec 54 Hrs***

The processes of socialization focusing on the interrelationship of family, school, and community. Examines the influence of multiple societal contexts. Explores the role of collaboration between family, community, and schools in supporting children's development, birth through adolescence.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]**[C-ID CDEV 110]****ECE-4. Introduction to Curriculum (3)*****Advisory: ECE-1******Lec 54 Hrs***

Presents an overview of knowledge and skills related to providing appropriate curriculum and environments for young children. Students will examine a teacher's role in supporting development and learning for all young children. This course provides strategies for developmentally effective practices based on observation and assessments across the curriculum.

[CSU] [C-ID ECE 130]**ECE-6. Child Growth & Development (3)*****Lec 54 Hrs***

Examines the progression of development in the physical, cognitive, social, and emotional domains and identifies developmental milestones for children from conception through adolescence. Emphasis on interactions between biological processes and environmental factors. Students will observe children, evaluate individual differences, and analyze characteristics of development at various stages according to developmental theories.

[CSU; UC; CSU-GE, AREA E; IGETC, AREA 4]**[C-ID CDEV 100]**

ECE-8. Math and Science in Early Childhood (3)

Lec 54 Hrs

Exploration of the content and concepts of the early childhood mathematics and science curriculum. Students will examine and apply theories, methods, and materials to facilitate children's understanding and appreciation for the concepts of math and science with an emphasis on discovery, play, problem-solving skills, and strategies. Includes California Preschool Foundations for Mathematics and Science and the construction and presentation of appropriate materials for young children, including children with special needs.

[CSU; UC]

ECE-9. Creative Expressions and Play in Early Childhood (3)

Lec 54 Hrs

This course is an exploration of creative play, art, music and movement (motor skills) for young children. Emphasis will be placed on integrated teaching practices in early childhood education.

[CSU; UC]

ECE-10. Observation and Assessment (3)

Lec 54 Hrs

Introduces the appropriate use of assessment and observation tools and strategies to document young children's development and learning. The use of findings to inform and plan learning environments and experiences is emphasized. Recording strategies, rating systems, portfolios, and multiple assessment tools will be discussed, along with strategies for collaboration with families and professionals.

[CSU] [C-ID ECE 200]

ECE-12. Practicum: Field Teaching Experience (4)

Prerequisite: ECE-1, ECE-4, ECE-6, ECE-10 with a grade of "C" or better.

Other: Students enrolling in ECE-12 must demonstrate up to date immunization records on the first day of class (MMR, DTAP and current TB clearance within 1 year).

Lec 36 Hrs; Lab 108 Hrs

Students 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 utilize reflective practice in their design, implementation, and evaluation of experiences that promote development and learning for all young children. Formerly ECE-12A. Not open to students who have successfully completed ECE-12A with a grade of "C" or better.

[CSU] [C-ID ECE 210]

ECE-19. Health, Safety and Nutrition in Early Childhood Programs (3)

Lec 54 Hrs

Introduction to laws, regulations, standards, policies, procedures, and best practices related to health, safety, and nutrition in early childhood settings. Includes the importance of collaboration with families and health care professionals, prevention strategies, nutrition, and meal planning for various ages and planning educational experiences to teach children positive health, safety and nutrition habits.

[CSU] [C-ID ECE 220]

ECE-20. Infant and Toddler Development (3)

Prerequisite: ECE-6 with a grade of "C" or better.

Pass/No Pass Option

Lec 54 Hrs

A study of infants and toddlers from pre-conception to age three including physical, cognitive, language, social, and emotional growth and development. Applies theoretical frameworks to interpret behavior and interactions between heredity and environment. Emphasizes the role of family and relationships in development.

[CSU]

ECE-21. Infant/Toddler Care and Education (3)

Pass/No Pass Option

Lec 54 Hrs

Applies current theory and research to the care and education of infants and toddlers in group settings. Examines essential policies, principles and practices that lead to quality care and developmentally appropriate curriculum for children birth to 36 months.

[CSU]

ECE-26. Children with Special Needs (3)

Lec 54 Hrs

An introduction and overview of the history of special education, landmark legislation, and federal mandates protecting the rights of children with special needs. Focus will include characteristics and diverse educational needs of children with special needs, theories, research, and practical applications of best practices from the fields of ECE and Early Intervention.

[CSU]

ECE-27. Principles and Practices in Guiding Children's Behaviors (3)

Advisory: ECE-6 or ECE-26

Lec 54 Hrs

Designed for students interested in the basic principles and practices for guiding children with diverse needs and behaviors in early childhood settings. Emphasis on the guidance and discipline techniques most effective in supporting all children through their social/emotional development, self-regulation and adaptations to group care settings. [CSU]

ECE-53. Teaching in a Diverse Society (3)*Fall/Spring**Lec 54 Hrs*

Examines the historical and current perspectives on diversity and inclusion and the impact of systemic societal influences on children's development, learning, and school experiences. Strategies for developmentally, culturally, and linguistically responsive anti-bias curriculum will be explored as well as approaches to promote inclusive and anti-racist classroom communities. Includes self-reflection on the influence of teachers' own culture and life experiences on teaching and interactions with children and families.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4] [C-ID ECE 230]**ECE-54. Language and Early Literacy Curriculum (3)***Lec 54 Hrs*

Designed for students interested in understanding theories of language acquisition and for monolingual, English learners, and children with special needs. Focus on methods and materials to promote emerging language and literacy for all young children in a culturally diverse society.

[CSU]**ECE-70A. Administration I-Programs in Early Childhood Education (3)***Prerequisite: ECE-1, ECE-2, ECE-4 and ECE-6 with a grade of "C" or better.**Lec 54 Hrs*

Introduction to the administration of early childhood programs. Covers program types, budget, management, regulations, laws, development and implementation of policies and procedures. Examines administrative tools, philosophies, and techniques needed to organize, open, and operate an early care and education program.

[CSU]**ECE-70B. Advanced Administration II: Personnel and Leadership in Child Development Programs (3)***Prerequisite: ECE-70A with a grade of "C" or better.**Lec 54 Hrs*

Designed for advanced students of Early Childhood Education, supervisors and administrators of child development programs to expand skills and knowledge in program funding, organizational systems, legal and ethical responsibilities, program management and leadership skills. Focus on profit and non-profit programs, program funding, grant writing, program evaluation, program improvement, supervision techniques, professional development, advocacy, professionalism, and reflective practices for diverse and inclusive early care and education programs.

[CSU]**ECE-71. Adult Supervision and Mentoring in ECE Settings (2)***Lec 36 Hrs*

Methods and principles of supervising student teachers, volunteers, staff, and other adults in early care and education settings. Emphasis is on the roles and development of early childhood professionals as mentors and leaders.

[CSU]**ECE-200. Parent Enrichment (0.25 - 1)***Pass/No Pass Only**Lab 12-18 Hrs*

Designed for parents about the typical developmental and growth patterns of preschool children. Students may enroll in this course up to 4 times to complete all content areas for a maximum of 1.0 units.

ECONOMICS

ECO-1. Principles of Macroeconomics (3)*Prerequisite: Intermediate Algebra or equivalent or placement beyond.**Advisory: Eligibility for ENG-1A**All Terms**Lec 54 Hrs*

Introduces national income, employment, inflation, economic growth, government economic policy, banking and the Federal Reserve System and international economics.

[CSU; UC; CSU-GE, AREA D2; IGETC, AREA 4]**[C-ID ECON 202]****ECO-5. Principles of Microeconomics (3)***Prerequisite: Intermediate Algebra or equivalent or placement beyond.**Advisory: Eligibility for ENG-1A**All Terms**Lec 54 Hrs*

Examines the workings of the marketplace, the economics of the consumer, the business firm, the distribution of income, and the allocation of resources.

[CSU; UC; CSU-GE, AREA D2; IGETC, AREA 4]**[C-ID ECON 201]**

ECO-10. Introduction to Economics (3)

Prerequisite: Eligibility for ENG-1A;

Fall Only

Lec 54 Hrs

A broad survey of the development of economic ideas and theories in the context of economic schools of thought. Both microeconomic and macroeconomic topics are covered including scarcity, opportunity costs, supply and demand (both individual and aggregate), market structures, labor markets, the business cycle, government intervention including regulations, fiscal policy and monetary policy, and international issues such as international trade and global income distribution. Not open to students who have completed ECO-1 and ECO-5 with a "C" or better.

[CSU; UC; CSU-GE, AREA D2; IGETC, AREA 4]

EDUCATION

EDU-1. Introduction to Education in a Changing World (3)

Advisory: ENG-1A

Fall/Spring

Lec 54 Hrs

An introduction to education, this course reviews the historical, sociological, philosophical and psychological perspectives, which form the context of the American educational system. Designed to encourage prospective teachers to reflect on their decision to enter the teaching profession, particularly at the K-12 level, this course will focus on analyzing the multicultural dynamics in the historical and social structure of school and society, while providing opportunities to analyze a variety of teaching perspectives, and to gain and develop the cultural knowledge of self and others necessary to teach in a multicultural society. As such, it includes an observation or service-learning component that requires 45 hours of supervised participation at a school site. There may be a few associated with TB and LifeScan reviews as required by a school site.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]

[C-ID EDUC 200]

EDU-110. Foundations of Success (1.25)

Pass/No Pass Only

Lec 36 Hrs; Lab 40.5 Hrs

Introduction to professional behaviors, attitudes and values that lead to academic and professional success. Individual working and learning styles, communication methods, and stress reduction are key concepts. A learning environment is created to foster collaboration, curiosity, and successful student behaviors.

EDU-111. Team Self-Management (2)

Prerequisite: EDU-110 with a grade of "C" or better.

Lec 36 Hrs

Fundamentals of project management with a self-managed team. Course explores the connections of the student's purposes, intentions, and behaviors to improve self-management skills. The student develops personal and academic objectives: time management, educational plans, heightened self-awareness, and consideration for others in a professional/academic environment.

EDU-112. Social Justice Research Methods (3.5)

Corequisite: EDU-111, COU-30 and BUS-150

Lec 54 Hrs; Lab 27 Hrs

Students develop project management skills in team leadership. Topics include learning to delegate tasks and supervise project development, problem solving, data analysis, presentation and research skills in the context of a survey-based primary research project on a community issue related to social justice. Students analyze community needs and propose innovative solutions. Course includes overview and critical analysis of historical and contemporary social justice issues.

EMERGENCY MEDICAL TECHNOLOGY

EMT-53 students are required to sign an ambulance ride along waiver and provide proof of immunization, vaccinations, and a health assessment before completing clinical hours. Uniforms, identification patches, and shoes that meet clinical agency requirements may be purchased or borrowed. Students interested in taking the EMT certification exam must be 18-years of age. Please contact Nursing and Health Sciences for detailed information (831) 770-6146.

EMT-53. Emergency Medical Technician (9)

Advisory: Each student will be required to provide a copy of the American Health Association Basic Life Support card, undergo a background check, drug screen, physical and provide proof of appropriate vaccinations.

All Terms

Lec 126 Hrs; Lab 108 Hrs

The EMT course includes a California mandated curriculum. Classroom experiences include the function and structure of human systems and basic life support skills. Each student will be required to undergo a background check, drug screen, physical, and provide appropriate vaccinations (at the student's expense) in order to move on and complete the second clinical phase of the course. To qualify for the National Registry Exam (additional fee), students must pass with an 80%, hold a current BLS card, and be 18 years of age.

[CSU]

ENGINEERING

EGN-1R. Introduction to Engineering (2)

Prerequisite: *Intermediate Algebra or equivalent or placement beyond.*

Lec 36 Hrs

Explores the branches of engineering, the functions of an engineer, and the industries in which engineers work. Explains the engineering education pathways and explores effective strategies for students to reach their full academic potential. Presents an introduction to the methods and tools of engineering problem solving and design including the interface of the engineer with society and engineering ethics. Develops communication skills pertinent to the engineering profession. Not open to students who have completed EGN-1 with a grade of "C" or better.

[CSU; UC] [C-ID ENGR 110]

EGN-1L. Introduction to Engineering Laboratory (1)

Corequisite: *EGN-1R*

Lab 54 Hrs

Designed to allow students to explore engineering through hands-on design projects and problem-solving using computers. Students will acquire both technical skills and non-technical skills, in areas such as communication, teamwork, and project management. This course is designed for students who want to develop their engineering spreadsheet (e.g. Excel) skills and engineering majors who are transferring to San Jose State University. Not open to students who have completed EGN-1 with a grade of "C" or better.

[CSU; UC]

EGN-2. Engineering Graphics and Design (3)

Prerequisite: *MAT-24 or MAT-27 with a grade of "C" or better.*

Advisory: *EGN-1 or EGN-1R*

Lec 36 Hrs; **Lab** 54 Hrs

Covers the principles of engineering drawings in visually communicating engineering designs and an introduction to computer-aided design (CAD). Topics include the development of visualization skills; orthographic projections; mechanical dimensioning and tolerancing practices; and the engineering design process. Assignments develop sketching and 2-D and 3-D CAD skills. The use of CAD software is an integral part of the course.

[CSU; UC] C-ID ENGR 150]

EGN-4. Materials Science and Engineering (4)

Prerequisite: *CHM-1A and PHY-4A with a grade of "C" or better.*

Advisory: *EGN-1R and EGN-1L*

Lec 54 Hrs; **Lab** 54 Hrs

This course presents the internal structures and resulting behaviors of materials used in engineering applications, including metals, ceramics, polymers, composites, and semiconductors. The emphasis is upon developing the ability both to select appropriate materials to meet engineering design criteria and to understand the effects of heat, stress, imperfections, and chemical environments upon material properties and performance. Laboratories provide direct observations of the structures and behaviors discussed in the course, experience with the operation of testing equipment, and the preparation of experimental reports.

[CSU; UC] [C-ID ENGR 140B]

EGN-5. Programming and Problem-Solving in MATLAB (3)

Prerequisite: *MAT-3A with a grade of "C" or better.*

Advisory: *EGN-1R and EGN-1L*

Lec 36 Hrs; **Lab** 54 Hrs

The MATLAB environment is utilized to provide students with a working knowledge of computer-based problem-solving methods relevant to science and engineering. The course 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.

[CSU; UC] [C-ID ENGR 220]

EGN-6. Circuit Analysis (4)

Prerequisite: *PHY-4B with a grade of "C" or better.*

Corequisite: *MAT-5*

Advisory: *EGN-1R and EGNL; A programming course*

Lec 54 Hrs; **Lab** 54 Hrs

An introduction to the analysis of electrical circuits. Use of analytical techniques based on the application of circuit laws and network theorems. Analysis of DC and AC circuits containing resistors, capacitors, inductors, dependent sources, operational amplifiers, and/or switches. Natural and forced responses of first and second order RLC circuits; the use of phasors; AC power calculations; power transfer; and energy concepts. Basic use of electrical test and measurement instruments including multimeters, oscilloscopes, power supplies, and function generators. Use of circuit simulation software. Interpretation of measured and simulated data based on principles of circuit analysis for DC, transient, and sinusoidal steady-state (AC) conditions. Elementary circuit design. Practical considerations such as component value tolerance and non-ideal aspects of laboratory instruments. Construction and measurement of basic operational amplifier circuits.

[CSU; UC] [C-ID ENGR 260; 260L]

COURSE LISTINGS

EGN-7L. Computer Interface with the Physical World Laboratory (1)

Prerequisite: MAT-3A with a grade of "C" or better.

Corequisite: CSS-2A

Advisory: EGN-1R or EGN-1

Lab 54 Hrs

Introduces the interface of software with the physical world (e.g., the use of sensors). This course is recommended for electrical, computer, and software engineering majors. Not open to students who have completed EGN-7 or CSS-4 with a grade of "C" or better.

[CSU; UC] [C-ID ENGR 120 with CSS 2A]

EGN-8. Statics (3)

Prerequisite: PHY-4A and MAT-3B with a grade of "C" or better.

Advisory: EGN-1R; EGN-1L; EGN-2; A programming course

Lec 54 Hrs

A first course in engineering mechanics: properties of forces, moments, couples and resultants; two- and three-dimensional force systems acting on engineering structures in equilibrium; analysis of trusses, and beams; distributed forces, shear and bending moment diagrams, center of gravity, centroids, friction, and area and mass moments of inertia.

[CSU; UC] [C-ID ENGR 130]

EGN-11. Surveying (3)

Prerequisite: MAT-24 or MAT-27 with a grade of "C" or better.

Advisory: EGN-1R and EGN-2

Lec 36 Hrs; **Lab** 54 Hrs

The course applies theory and principles of plane surveying: office computations and designs; operation of surveying field equipment; and production of engineering plans/maps. Topics include distances, angles, and directions; differential leveling; traversing; property/boundary surveys; topographic surveys/mapping; volume/earthwork; horizontal and vertical curves; land description techniques, and GPS. Extensive field work using tapes, levels, transits, theodolites, total stations, and GPS.

[CSU; UC] [C-ID ENGR 180]

ENGLISH

ENG-1A. College Composition and Reading (3)

All Terms

Lec 54 Hrs

Introduction to composition with emphasis on writing of exposition, and reading of selected works from a variety of academic and cultural contexts, and writing from research. Students will write a minimum of 6,500 words in graded assignments.

[CSU; UC; CSU-GE AREA A2; IGETC, AREA 1]

[C-ID ENGL 100]

ENG-1AX. Intensive College Composition and Reading (4)

All Terms

Lec 72 Hrs

Intensive introduction to composition with emphasis on writing of argument, reading of selected works from a variety of academic and cultural contexts, and writing from research. Students will write a minimum of 6,500 words in graded assignments. Not open to students who have completed ENG-1A with a grade of C or better.

[CSU; UC; CSU-GE, AREA C2; IGETC AREA 1A]

[C-ID ENGL 100]

ENG-1B. College Literature and Composition (3)

Prerequisite: ENG-1A or ENG-1AX with a grade of "C" or better.

All Terms

Lec 54 Hrs

An introductory literature course with an emphasis in both literacy composition and critical thinking. The course provides instruction and practice in critical thinking and forming literature-based arguments through the close study of the major genres of literature: poetry, fiction, drama, and the novel. Students receive instruction in analytical and argumentative writing by studying literature, criticism, and identification of sound and fallacious reasoning in assessments of literature and literary criticism. Students will write a total of 6,000 words.

[CSU; UC; CSU-GE AREA A3, C2; IGETC, AREA 1B, 3A]

[C-ID ENGL 120]

ENG-2. Critical Thinking and Writing (3)

Prerequisite: ENG-1A or ENG-1AX with a grade of "C" or better.

All Terms

Lec 54 Hrs

Students will use critical reading, thinking, and writing skills beyond the level achieved in ENG-1A to develop argumentative essays in conjunction with predominantly nonfiction prose and discussion of readings. Students will write a total of 6,000 words comprised of short essays, a research paper, and homework assignments.

[CSU; UC; CSU-GE, AREA A3, IGETC, AREA 1]

[C-ID ENGL 105]

ENG-17. The Contemporary Shakespeare (3)

Prerequisite: ENG-1A or ENG-1AX with a grade of "C" or better.

Spring Only –Even Years

Lec 54 Hrs

An examination of Shakespeare's poetry and plays, involving close study of representative works. Focuses include the cultural context of Shakespeare's life and works, his lasting literary influence, and the interpretation of Shakespeare in performance on stage and in film adaptations.

[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3A]

ENG-22. Studies in Poetry (3)

Prerequisite: ENG-1A or ENG-1AX with a grade of "C" or better.

Spring Only - Odd Years

Lec 54 Hrs

An introduction to poetry from a variety of cultures and historical periods to understand the genre as both artistic and cultural representation. Students read poems and poetic forms, watch poets read and discuss their work, write literary and cultural analyses of poems, and compose their own original poems.

[CSU; UC; CSU-GE, AREA C2; IGETC AREA 3B]

ENG-24. The Short Story (3)

Prerequisite: ENG-1A or ENG-1AX with a grade of "C" or better.

Fall Only –Even Years

Lec 54 Hrs

Reading and diverse selection of classics and contemporary short fiction. Analysis of a spectrum of voices, styles, formal structures, and themes. Application of different types of literacy criticism, such as feminist and reader response.

[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3A]

ENG-26. Chicana Literature (3)

Prerequisite: ENG-1A or ENG-1AX with a grade of "C" or better.

Spring Only –Odd Years

Lec 54 Hrs

An introduction to the study of Chicana Literature from the oral tradition, "el cuento," to the written contemporary works of authors such as Rivera, Cisneros, Villaseñor, and Soto.

[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3A]

ENG-31. Beginning Creative Writing (3)

Prerequisite: Eligibility for ENG-1A.

Fall Only –Even Years

Lec 54 Hrs

Designed to provide students with the opportunity to practice the art of creative writing. Emphasis is placed on writing and publishing fiction, poetry, and essays. Upon completion, students should be able to craft and critique their own writing and critique the writing of others. Readings will focus on the critical analysis of short stories and literature in order to achieve a better understanding of the interrelationship between creative arts, humanities and the individual.

[CSU; UC; CSU-GE, AREA C2] [C-ID ENGL 200]

ENG-41. Art of Steinbeck (3)**Fall Only –Even Years**

Lec 54 Hrs

A close study of John Steinbeck's California novels that best exemplify his themes, style, and use of setting.

[CSU; UC; CSU-GE AREA C2; IGETC, AREA 3A]

ENG-44A. World Literature I (3)

Prerequisite: ENG-1A or ENG-1AX with a grade of "C" or better.

Fall Only –Odd Years

Lec 54 Hrs

A study of world literature from ancient times through the Renaissance. Readings will include poetry and prose and the course will consider the literary, cultural, and historical significance of literature from Western and Non-Western traditions.

[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3A]

[C-ID ENGL 140]

ENG-44B. World Literature II (3)

Prerequisite: ENG-1A or ENG-1AX with a grade of "C" or better.

Spring Only-Even Years

Lec 54 Hrs

Study of world literature from the Renaissance to the present time. Readings will include poetry and prose and the course will consider the literary, cultural, and historical significance of literature from Western and Non-Western traditions.

[CSU; UC; CSU-GE; AREA C2; IGETC, AREA 3A]

[C-ID ENGL 145]

ENG-46A. Survey of British Literature I (3)

Prerequisite: ENG-1A or ENG-1AX with a grade of "C" or better.

Spring Only-Even Years

Lec 54 Hrs

A survey of English literature from early works in Old English to approximately 1785. Readings will include poetry, prose, drama, and religious writing of this period, chosen for their literary, historical, and cultural significance.

[CSU; UC; CSU-GE; AREA C2; IGETC, AREA 3A]

[C-ID ENGL 160]

ENG-46B. Survey of British Literature II (3)

Prerequisite: ENG-1A or ENG-1AX with a grade of "C" or better.

Fall Only-Even Years

Lec 54 Hrs

A survey of English literature from Romanticism to the present. Readings will include poetry, prose, and dramatic works chosen for their literary, historical, and cultural significance.

[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3A]

[C-ID ENGL 165]

COURSE LISTINGS

ENG-47A. Survey of American Literature I (3)

Prerequisite: ENG-1A or ENG-1AX with a grade of "C" or better.

Spring Only-Odd Years

Lec 54 Hrs

Survey of American literature from its origins to the late 19th century. Readings will include poetry, prose, drama, and religious writings of this period, chosen for their literary, historical, and cultural significance.

[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3A]

[C-ID ENGL 130]

ENG-47B. Survey of American Literature II (3)

Prerequisite: ENG-1A or ENG-1AX with a grade of "C" or better.

Fall Only-Odd Years

Lec 54 Hrs

Survey of American literature from the late 19th century to the present. Readings will include poetry, prose, and drama of this period, chosen for its literary, historical, and cultural significance.

[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3A]

[C-ID ENGL 135]

ENG-48. Introduction to Children's Literature (3)

Prerequisite: ENG-1A or ENG-1AX with a grade of "C" or better.

Fall Only-Odd Years

Lec 54 Hrs

A study of children's literature from ancient origins to contemporary fiction. It examines the various genres of children's literature from picture books, traditional literature, fantasy, poetry, realistic and historical fiction from such writers as Aesop, Grimm, Lewis, Sandburg, Sendak, White, Woodson, Rowling, Alexi, Alvarez, and Adams through close critical reading and analytical writing consisting of at least 6,000 words.

[CSU; UC; CSU-GE, AREA C2; IGETC AREA 3B]

[C-ID ENGL 180]

ENGLISH FOR MULTILINGUAL SPEAKERS

ENGM-120. Beginning Reading and Writing (6)

Advisory: Students should be literate enough in their native language to write a note to a friend or read a newspaper in their native language. They should have enough English language competency to speak and/or write understandable simple sentences despite making grammatical errors.

Pass/No Pass Option

Lec 90 Hrs Lab 54 Hrs

Reading and writing practice at the beginning level for multilingual speakers of English. Course includes three weekly hours of lab.

ENGM-122. Beginning Speaking and Listening (4)

Pass/No Pass Option

Lec 72 Hrs

Listening and conversation practice at the beginning level for multilingual English learners.

ENGM-130. Low-Intermediate Reading & Writing (6)

Pass/No Pass Option

Lec 90 Hrs Lab 54 Hrs

Emphasizes the development of writing, vocabulary, and reading skills for low-intermediate multilingual English learners. Includes three hours/week of lab instruction.

ENGM-132. Low-Intermediate Speaking and Listening (4)

Pass/No Pass Option

Lec 72 Hrs

Listening and conversation practice at the low-intermediate level for multilingual English learners.

ENGM-140. Intermediate Reading & Writing (6)

Pass/No Pass Option

Lec 90 Hrs Lab 54 Hrs

Emphasizes grammar, vocabulary and reading comprehension skills for intermediate multilingual English learners. Includes three hours of lab per week.

ENGM-142. Intermediate Speaking and Listening (4)

Pass/No Pass Option

Lec 72 Hrs

Listening and conversation practice at the intermediate level for multilingual English learners.

ENGM-150. High-Intermediate Writing & Grammar (6)

Advisory: ENGM-140

Pass/No Pass Option

Lec 90 Hrs Lab 54 Hrs

Grammar and writing for high-intermediate multilingual English students. Complex sentences, verb tenses, and paragraph writing skills are stressed. Course includes three weekly hours of lab. Not open to students who have completed ESL-255 with a grade of "C" or better.

ENGM-152. English Pronunciation and Spelling (3)

Lec 54 Hrs

Focuses on English pronunciation and spelling. Includes practice of the sounds, rhythm, and intonation of spoken English. Analyzes English spelling rules and sound-to-letter relationships. Appropriate for all language levels.

ENGM-158. High-Intermediate Reading and Vocabulary (4)**Advisory:** ENGM-140**Pass/No Pass Option****Lec** 72 Hrs

Uses current issues and nonfiction texts to develop critical reading skills, academic vocabulary, and discussion skills. For multi-lingual English speakers at high-intermediate level. Not open to students who have completed ESL-258 with a grade of "C" or better.

ENGM-160. Reading and Writing for College (5)**Advisory:** ENGM-150**Lec** 90 Hrs

Prepares students to read and write for college. Readings include college or near college-level articles, essays, and other types of nonfiction. Emphasis on summary writing, paragraphs and short essays that analyze and respond to class readings. Includes practice with vocabulary, grammatical forms, and punctuation that support effective writing in college. Not open to students who have completed ESL-101 with a grade of "C" or better.

ENGM-162. College Speaking and Listening Skills (3)**Lec** 54Hrs

This course develops listening and speaking skills that multilingual students need to succeed in college. These skills include note taking, asking for clarification, summarizing, small group and whole class discussions, and individual and group presentations.

ENGM-190A. English in the Lab A (1)**Pass/No Pass Only****All Terms****Lab** 54 Hrs

This self-paced lab course will provide students competency-based interactive whole-language assignments using multimedia and computers under the guidance of an instructor. Grammar reinforcement activities include reading, listening, and pronunciation exercises. Topics include simple present, present continuous, future, simple past tenses, imperatives, parts of speech, possessive forms, and count/noncount nouns.

ENGM-190B. English in the Lab B (1)**Pass/No Pass Only****All Terms****Lab** 54 Hrs

This self-paced lab course will provide students competency-based interactive whole-language assignments using multimedia and computers under the guidance of an instructor. Topics include past tense sequences, the past continuous tense, gerunds and infinitives, comparatives and superlatives, definite and indefinite articles, and an introduction to the present perfect tense.

ENGM-190C. English in the Lab C (1)**Pass/No Pass Only****All Terms****Lab** 54 Hrs

This self-paced lab course will provide students competency-based interactive whole-language assignments using multimedia and computers under the guidance of an instructor. Grammar reinforcement activities include reading, listening, and pronunciation exercises. Topics include the past continuous, present perfect and present perfect continuous tenses, modals of advice, ability, request, possibility, preference, permission and necessity, and future time clauses.

ENGM-190D. English in the Lab D (1)**Pass/No Pass Only****All Terms****Lab** 54 Hrs

This self-paced lab course will provide students competency-based interactive whole-language assignments using multimedia and computers under the guidance of an instructor. Grammar reinforcement activities include reading, listening, and pronunciation exercises. Topics include the passive voice, the conditional, past perfect, reported speech, and adjective clauses.

ENGM-195. English and Spanish in the Community (1)**Pass/No Pass Only****Lab** 54 Hrs

This course is organized around a partnership between English and Spanish language learners that allows them to develop interpretive, presentational, and interpersonal listening and speaking skills and intercultural communicative competence, through activities, projects, and authentic interactions with speakers of their target language.

ENGM-620. Beginning Reading and Writing (0)

Advisory: Students should be literate enough in their native language to write a note to a friend or read a newspaper in their native language. They should have enough English language competency to speak and/or write understandable simple sentences despite making grammatical errors.

Lec 90 Hrs **Lab** 54 Hrs

Reading and writing practice at the beginning level for multilingual speakers of English. Course includes three weekly hours of lab.

ENGM-622. Beginning Speaking and Listening (0)**Lec** 72 Hrs

Listening and conversation practice at the beginning level for multilingual English learners.

ENGM-630. Low-Intermediate Reading & Writing (0)**Lec** 90 Hrs **Lab** 54 Hrs

Emphasizes the development of writing, vocabulary, and reading skills for low-intermediate multilingual English learners. Includes three hours/week of lab instruction.

COURSE LISTINGS

ENGM-632. Low-Intermediate Speaking and Listening (0)

Lec 72 Hrs

Listening and conversation practice at the low-intermediate level for multilingual English learners.

ENGM-640. Intermediate Reading & Writing (0)

Lec 90 Hrs Lab 54 Hrs

Emphasizes grammar, vocabulary and reading comprehension skills for intermediate multilingual English learners. Includes three hours of lab per week.

ENGM-642. Intermediate Speaking and Listening (0)

Lec 72 Hrs

Listening and conversation practice at the intermediate level for multilingual English learners.

ENGM-650. High-Intermediate Writing & Grammar (0)

Advisory: ENGM-140

Lec 90 Hrs Lab 54 Hrs

Grammar and writing for high-intermediate multilingual English students. Complex sentences, verb tenses, and paragraph writing skills are stressed. Course includes three weekly hours of lab.

ENGM-658. High-Intermediate Reading and Vocabulary (0)

Advisory: ENGM-140

Lec 72 Hrs

Uses current issues and nonfiction texts to develop critical reading skills, academic vocabulary, and discussion skills. For multi-lingual English speakers at high-intermediate level.

ENGM-660. Reading and Writing for College (0)

Advisory: ENGM-150

Lec 90 Hrs

Prepares students to read and write for college. Readings include college or near college-level articles, essays, and other types of nonfiction. Emphasis on summary writing, paragraphs and short essays that analyze and respond to class readings. Includes practice with vocabulary, grammatical forms, and punctuation that support effective writing in college.

ENGM-662. College Speaking and Listening Skills (0)

Lec 54Hrs

This course develops listening and speaking skills that multilingual students need to succeed in college. These skills include note taking, asking for clarification, summarizing, small group and whole class discussions, and individual and group presentations.

ENGM-690A. English in the Lab A (0)

All Terms

Lab 54 Hrs

This noncredit, self-paced lab course will provide students competency-based interactive whole-language assignments using multimedia and computers under the guidance of an instructor. Grammar reinforcement activities include reading, listening, and pronunciation exercises. Topics include simple present, present continuous, future, simple past tenses, imperatives, parts of speech possessive forms, and count/noncount nouns.

ENGM-690B. English in the Lab B (0)

All Terms

Lab 54 Hrs

This noncredit, self-paced lab course will provide students competency-based interactive whole-language assignments using multimedia and computers under the guidance of an instructor. Topics include past tense sequences, the past continuous tense, gerunds and infinitives, comparatives and superlatives, definite and indefinite articles, and an introduction to the present perfect tense.

ENGM-690C. English in the Lab C (0)

All Terms

Lab 54 Hrs

This noncredit, self-paced lab course will provide students competency-based interactive whole-language assignments using multimedia and computers under the guidance of an instructor. Topics include the past continuous, present perfect and present perfect continuous tenses, modals of advice, ability, request, possibility, preference, permission and necessity, and future time clauses.

ENGM-690D. English in the Lab D (0)

All Terms

Lab 54 Hrs

This noncredit, self-paced lab course will provide students competency-based interactive whole-language assignments using multimedia and computers under the guidance of an instructor. Grammar reinforcement activities include reading, listening, and pronunciation exercises. Topics include the passive voice, the conditional, past perfect, reported speech, and adjective clauses.

ENGM-695. English and Spanish in the Community

Advisory: ESL-233

Lab 54 Hrs

This course is organized around a partnership between English and Spanish language learners that allows them to develop interpretive, presentational, and interpersonal listening and speaking skills and intercultural communicative competence, through activities, projects, and authentic interactions with speakers of their target language.

ETHNIC STUDIES

ETH-1. Introduction to Ethnic Studies (3)**All Terms****Pass/No Pass Option****Lec 54 Hrs**

A historical and interdisciplinary approach to the study of ethnic and racial groups in the United States. Through an Ethnic Studies disciplinary framework, African American, Asian American, Latinx/Chicanx and Native American experiences are examined, and the origins of White Supremacy and its historical impact on these racial and ethnic groups are examined.

[CSU; UC; CSU-GE, AREA D, F; IGETC, AREA 4, 7]**ETH-2. Chicana/o/x Leadership (3)****Pass/No Pass Option****Fall Term****Lec 54 Hrs**

A multidisciplinary survey of Chicana/o/x leadership. This course examines historical events and how they have affected the development of Chicana/o/x leaders. Through examination of local, state, and national political leaders and organizations, students will participate in leadership development.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4, 7]**ETH-3. Introduction to Chicanx Studies (3)****Pass/No Pass Option****All Terms****Lec 54 Hrs**

A multidisciplinary approach designed to acquaint students with the intellectual traditions and contributions of Chicanx community members. The history, politics, culture, religion, social struggles, resistance and liberation of the Chicanx community are explored. Course concepts include: race, racialization, and anti-racism, as well as exploration of the social institutions that shape the lived experiences of Chicanx community members, with emphasis on agency and group affirmation.

[CSU; UC; CSU-GE, AREA D, F; IGETC, AREA 4, 7]**ETH-4. Chicanx Culture (3)****Pass/No Pass Option****All Terms****Lec 54 Hrs**

A multidisciplinary approach to the study of the Chicanx experience and culture as expressed in everyday life. Reading and discussion focus will range from gender, race, class, Chicanx values, norms, and language, to creative culture and political activism. Diversity of the Chicanx experience is also examined.

[CSU; UC; CSU-GE, AREA D, F; IGETC, AREA 4, 7]**ETH-5. Chicano Politics and the American Political System (3)****Advisory: ENG-1A and POL-1****Spring Only****Lec 54 Hrs**

A survey of U.S. and California political institutions, including the U.S. Constitution as it relates to Chicanos. Chicano organizations, political models, ideology, political participation, and leadership will be studied. The role of race, class, immigration status, sex, gender, identity and the struggle for social justice, equality and political participation will be examined. The role of the media and polling will also be examined. Not open to students who have completed POL-5 with a grade of "C" or better.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]**ETH-6. La Chicana (3)****Spring Only****Lec 54 Hrs**

A survey of La Chicana in American society as viewed through a historical and sociological perspective including a discussion of her role in Chicano culture, family, religion, education, and economics. Contemporary problems and conditions will be considered.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]**ETH-7. Chicana/o/x Theatre (3)****Pass/No Pass Option****Spring Only****Lec 54 Hrs**

A cultural and historic introduction to Chicana/o/x Theatre. The course examines the rich history and ongoing developments born out of the struggles of the Farmworkers of the 1960s. Examining Chicana/o/x identity through exploration of the historical and contemporary ways of life illustrated in stage productions. The course provides a decolonized, noncommercial entry point into the Theatre Arts.

[CSU; UC; CSU-GE, AREA C1, F; IGETC, AREA 3B, 7]**ETH-8. Introduction to Asian American Studies (3)****Pass/No Pass Option****Fall/Spring****Lec 54 Hrs**

An introduction to Asian American Studies, the course will provide students with an overview of the Asian American experience in California through immigration, public policy, historical and lived experiences. Current issues as well as social movements and moments will be surveyed. Topics to be explored include: identity, familial/community relationships, and social issues impacting groups such as Chinese, Japanese, Korean, Filipino, South Asian, Southeast Asian, and Pacific Islanders.

[CSU; UC; CSU-GE, AREA D, F; IGETC, AREA 4, 7]

COURSE LISTINGS

ETH-12. Chicano Cinema (3)

Spring Only

Lec 54 Hrs

A survey of the experiences of Chicanos in the United States including Chicano culture, identity, resistance, social reality and history as portrayed in film and video. A series of films, including Hollywood commercial and Chicano made films, will be screened as part of an analysis of Chicano images and their impact on American popular culture.

[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3]

ETH-13. Introduction to Native Americans in the Salinas Valley (3)

Pass/No Pass Option

Fall Only

Lec 54 Hrs

An introduction to Native Americans of the Salinas Valley. The course will provide students with an overview of the following Monterey County native peoples: the Ohlone, Costanoan, Esselen Nation, Salinan, Rumsen and Amah Mutsun, among others. Tracing the first European contact, and culminating in current efforts in protecting sacred sites from development projects, this course will not only introduce students to the local Native cultures but will expose them to opportunities to become involved in current movements led by our local Native American communities today.

[CSU; UC; CSU-GE, AREA D, F; IGETC, AREA 4, 7]

ETH-21. Introduction to African American Studies (3)

Pass/No Pass Option

Fall/Spring

Lec 54 Hrs

This course is an overview of African American studies as a discipline, and of its' relationship to social justice studies. Interdisciplinary approaches will be employed in studying and understanding the experiences of African Americans. Critical analysis of the various perspectives and contributions of African Americans in the development and growth of the United States will be central. This includes areas from politics, to economics, to education. The course is intended for students who plan to pursue a degree with emphasis in African American studies and for students interested in gaining general knowledge about the experiences of Blacks/African Americans in the context of the United States. The course provides a decolonized, noncommercial entry point into the Theatre Arts. Not open to students who have completed SJS-21, Introduction to African American Studies with a grade of "C" or better.

[CSU; UC; CSU-GE, AREA D, F; IGETC, AREA 4, 7]

ETH-56. Ethnic Studies Cinema—Silenced Voices (3)

Pass/No Pass Option

All Terms

Lec 54 Hrs

An explorative journey through the narratives of marginalized voices, through film. The purpose of this course is to provide students with new, critical perspectives through examination of the experiences, struggles and successes of ignored and oppressed peoples in the modern world. Course readings will analyze how the voices and narratives featured in select films have remained pivotal in establishing standards for significant future productions and social movements. Ethnic and racial groups examined include African American, Native American, Asian American and Chicanx/Latinx.

[CSU; UC; CSU-GE, AREA C1, F; IGETC, AREA 3A, 7]

GEOGRAPHY

GEG-1. Introduction to Geography: Physical Elements (3)

Lec 54 Hrs

A study of the Earth's dynamic physical systems and processes. Topics include: Earth-sun geometry, weather, climate, water, landforms, soil, and the biosphere. Tools of geography (maps, remote sensing, and Geographic Information Systems) are introduced and applied. Additional emphasis is placed on the relationship between environmental and human processes and systems.

[CSU; UC; CSU-GE, AREA B1, D5; IGETC, AREA 5]

[C-ID GEOG 110]

GEG-10. Geography and World Affairs: A Regional Approach (3)

Advisory: Eligibility for ENG-1A

Lec 54 Hrs

Surveys the world's geographic regions as interpreted by geographers, including physical, cultural, and economic features. Emphasizes spatial and historical influences on population growth, transformation networks, and natural environments. Highlights environmental issues and significant features of world regions.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]

[C-ID GEOG 125]

GEOLOGY

GEL-1. Physical Geology (4)*Lec 54 Hrs; Lab 54 Hrs*

The nature and structure of the materials composing the earth and the various processes which have shaped or are shaping its surface. Includes plate tectonics, earthquakes, volcanoes, landforms, minerals, rocks, and geologic maps.

[CSU; UC; CSU-GE, AREA B1, B3; IGETC, AREA 5]**[C-ID GEOL 101]****GEL-2. Introduction to Geology (3)***Lec 54 Hrs*

Introduction to phenomena and basic principles of geology emphasizing plate tectonics. Includes demonstrations illustrating the nature of minerals, rocks, landforms, volcanoes, fossils, and geological maps. Discussion of earthquake hazards, mass wasting, climate change, and importance of geology to modern society.

[CSU; UC; CSU-GE, AREA B1; IGETC, AREA 5]**[C-ID GEOL 100]****GEL-6. History of the Earth (4)***Lec 54 Hrs; Lab 54 Hrs*

An introduction to Earth's history and the life it supports. Subjects include geologic dating, plate tectonics, stratigraphy, fossils, biological evolution, the planet's origin and the processes that have influenced paleogeography during the past 4.6 billion years. The laboratory component includes geologic dating, plate tectonics, stratigraphy, fossils, biological evolution, the planet's origin and the processes that have influenced paleogeography during the past 4.6 billion years. Students will supply: calculator, scale, protractor, colored pencils, 10X hand lens.

[CSU; UC; CSU-GE, AREA B1, B3; IGETC, AREA 5]**[C-ID GEOL 111]****GEL-25. Environmental Geology (3)***Lec 54 Hrs*

An introduction to the fundamentals of Environmental Geology including the interactions between and impacts of humans with the environment in geologic context. Course emphasizes the Earth system and connections between the geosphere, biosphere, biosphere, atmosphere, and hydrosphere. Application to Monterey County is emphasized.

[CSU; UC; CSU-GE, AREA B1, E; IGETC, AREA 5]**[C-ID GEOL 130]**

HEALTH EDUCATION

HED-2. Individual Health & Wellness (3)*Lec 54 Hrs*

The exploration of major health issues and behaviors in the various dimensions of health. Emphasis is placed on individual responsibility for personal health and the promotion of informed, positive health behaviors. Topics include mental health, stress, drugs, alcohol, smoking, exercise, nutrition, chronic and infectious diseases, sexuality, and consumer health.

[CSU; UC; CSU-GE, AREA E] [C-ID PHS 100]**HED-6. Multicultural Health Beliefs (3)***Lec 54 Hrs*

Designed to help the student develop an awareness of the cultural aspects of health beliefs and the influence of culture on health beliefs and behaviors. Special attention will be given to exploring how ethnicity, culture of origin, and socio-economic status influence health and quality of life, particularly among Latinos(as), African-Americans, Asian-Americans, Native-Americans, and European-Americans in the United States.

[CSU; UC; CSU-GE, AREA E]**HED-7. Women's Health (3)***Lec 54 Hrs*

The status of women's health examined from a cultural, political, and social perspective. A forum through which a presentation of issues regarding women's health care can be understood and viewed as important and significant.

[CSU; UC; CSU-GE, AREA D, E; IGETC, AREA 4]**HED-8. Weight Management through Fitness and Nutrition (3)***Lec 54 Hrs*

Healthy weight management through understanding the physical, emotional and psychological components for establishing proper energy balances and the obstacles we face as consumers in our current culture. The course emphasizes a holistic approach with an assessment of personal goals and values that will in turn strengthen and build improved lifestyle choices for the future.

[CSU]**HED-55. Health Education-Advanced First Aid (3)***Lec 54 Hrs*

Advanced fundamentals of first aid care that will include theory and demonstration of adult, child and infant CPR/AED and the first aid of the injured. Bandaging, splinting, and responding to emergencies are included. Standard first aid, CPR and AED certification will be granted upon successful completion of requirements. (There is an additional fee for the American Red Cross Professional Rescuer CPR card.)

[CSU; UC] [C-ID KIN 101]

HEALTH SERVICES

HES-1. Introduction to Public Health (3)

Advisory: Eligibility for ENG-1A

All Terms

Lec 54 Hrs

An introduction to the discipline of public health. An overview of terminologies and basic concepts of public health, public health professions, institutions, and public health disciplines will be provided. Areas of public health such as epidemiology, prevention and control of diseases in the community, analysis of social determinants of health, health disparities, community health promotion programming, environmental health and safety, global health, and health, and healthcare policy will be covered.

[CSU; UC; CSU-GE, AREA D, E; IGETC, AREA 4]

[C-ID PHS 101]

HES-2. Health and Social Justice (3)

Advisory: Eligibility for ENG-1A

All Terms

Lec 54 Hrs

An introduction to the health inequities in the United States due to unequal living conditions. Socioeconomics, race and gender as topics of health inequality in the United States will be covered. Students will research current policy proposals to reduce health inequality and gain information and skills for health and social justice advocacy.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]

[C-ID PHS 102]

HES-3. Drugs, Health, and Society (3)

Advisory: Eligibility for ENG-1A

All Terms

Lec 54 Hrs

An overview of substance abuse and its relevance to personal and public health. The definition of licit and illicit drug use as well as the concept of substance abuse and dependence will be introduced. The pharmacology of selected substances and their neurologic and physiologic effects will be reviewed. Political, social, and economic factors involved in the supply and demand for drugs will be discussed. Epidemiologic data on the incidence, prevalence, and trends of smoking, alcohol, prescription, and other drug dependencies in the U.S. will be covered as well as risk factors associated with the use and abuse of these substances. Treatment options for recovery and prevention will be reviewed.

[CSU; UC; CSU-GE, AREA E] [C-ID PHS 103]

HES-80. Medical Terminology (3)

All Terms

Lec 54 Hrs

Introduces the foundations of medical word-building principles as essential tools for effective communication in the health services industry. This course is not open to students who have completed BUS-180 with a grade of "C" or better.

[CSU]

HES-120. American Heart Association's Basic Life Support for Health Care Providers (0.5)

Advisory: Students are required to read the *Basic Life Support Manual for Health Care Providers* before class.

Pass/No Pass Only

All Terms

Lec 9 Hrs

Provides the student with knowledge required of the health care professional to perform basic life support in any setting. Upon successful completion, students will acquire the American Heart Association Basic Life Support for Health Care Providers certification. A fee will be required for the CPR card.

HIGH SCHOOL EQUIVALENCY

HSE-640. High School Equivalency: HISET/GED Level 1 (0)

Pass/No Pass Only

Lab 54 Hrs

Designed for students who have achieved a sixth-grade level in reading, writing, math, and critical thinking skills and who are preparing to take the HSE (High School Equivalency) test (GED/HiSET) within three semesters time. The class is an overview of basic skills including, arithmetic, pre-algebra, basic reading comprehension, basic composition, and inferences and interpretation. Additionally, test taking skills will be introduced.

HSE-640S. High School Equivalency: HISET/GED Level 1 in Spanish

Pass/No Pass Only

Lab 54 Hrs

Offered in Spanish and designed for students who have achieved a sixth grade level in reading, writing, math, and critical thinking skills and who are preparing to take the HSE (High School Equivalency) test (GED/HiSET) within three semesters time. The class is an overview of basic skills including, arithmetic, pre-algebra, basic reading comprehension, basic composition, and inferences and interpretation.

HSE-650. High School Equivalency: HISET/GED Level 2 (0)***Pass/No Pass Only******Lab 54 Hrs***

This course is designed for students who have achieved an eighth-grade level in reading, writing, math, and critical thinking skills and who are preparing to take the HSE (High School Equivalency) test (GED/HiSET) within one or two semesters time. The class is an overview of basic skills including, arithmetic, pre-algebra, basic reading comprehension, basic composition, and inferences and interpretation. Additionally, test taking skills will be introduced.

HSE-650S. High School Equivalency: HISET/GED Level 2 in Spanish***Pass/No Pass Only******Lab 54 Hrs***

Offered in Spanish and designed for students who have achieved an eighth-grade level in reading, writing, math, and critical thinking skills and who are preparing to take the HSE (High School Equivalency) test (GED/HiSET) within one or two semesters time. The class is an overview of basic skills including, arithmetic, pre-algebra, basic reading comprehension, basic composition, and inferences and interpretation.

HSE-660. High School Equivalency: HISET/GED Level 3 (0)***Pass/No Pass Only******Lab 54 Hrs***

Designed for students who have achieved above an 8th grade level in reading, writing, math, and critical thinking skills and who are preparing to take the HSE (High School Equivalency) test (GED/HiSET) within one semester. The class is an overview of skills including algebra and basic trigonometry, drama and poetry analysis, and writing and editing of a coherent text. Additionally, test taking skills will be reinforced.

HSE-660S. High School Equivalency: HISET/GED Level 3 in Spanish***Pass/No Pass Only******Lab 54 Hrs***

Offered in Spanish and designed for students who have achieved above an 8th grade level in reading, writing, math, and critical thinking skills and who are preparing to the HSE (High school Equivalency) test (GED/HiSET) within one semester. The class is an overview of skills including algebra and basic trigonometry, drama and poetry analysis, and writing and editing of a coherent text.

HISTORY

HIS-4A. Western Civilization A (3)***Fall Only******Lec 54 Hrs***

A survey of Western Civilization from prehistoric times through the Reformation of the 16th Century, with special emphasis on the social, political, economic, cultural, and Intellectual forces that have served to define western civilization.

[CSU; UC; CSU-GE, AREA D5, D6; IGETC, AREA 3]**[C-ID HIST 170]****HIS-4B. Western Civilization B (3)*****Spring Only******Lec 54 Hrs***

A survey of Western Civilization from the 16th century and absolutism to the present with special emphasis placed on the political structures, social structures, forms of cultural expression, and patterns of change during key periods of Western history.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 3]**[C-ID HIST 180]****HIS-5A. World History A (3)*****Fall Only******Lec 54 Hrs***

An examination of world history from the ancient era to the 1500's from a global perspective. This course examines the growth of civilizations and the interrelationships of peoples of Europe, Asia, Africa and the Americas with special emphasis on social, intellectual, economic, and political history.

[CSU; UC; CSU-GE, AREA C2, D; IGETC, AREA 3B, 4]**[C-ID HIST 150]****HIS-5B. World History B (3)*****Spring Only******Lec 54 Hrs***

An examination of world history from the 1500's to the present from a global perspective. This course examines the growth of civilizations and the interrelationships of peoples of Europe, Asia, Africa and the Americas with special emphasis on social, intellectual, economic, and political history.

[CSU; UC; CSU-GE, AREA C2, D; IGETC, AREA 3, 4]**[C-ID HIST 160]**

COURSE LISTINGS

HIS-6. History of Mexico (3)

Fall/Spring

Lec 54 Hrs

A survey of the history of Mexico from the Indigenous period to the present with emphasis on the political, economic, cultural, and social institutions of Mexico.

[CSU; UC; CSU-GE, AREA C2, D; IGETC, AREA 3B, 4]

HIS-10. History of California (3)

All Terms

Lec 54 Hrs

The history of California from the Indigenous period to the present focusing on the experiences of Peoples of Color including the Indigenous People of California, Chicanos/Latinos, African Americans, Asian Americans and Pacific Islanders. Local history considered in depth.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 3]

HIS-17A. United States History A (3)

Pass/No Pass Option

Lec 54 Hrs

A survey of United States history from the Indigenous period through Reconstruction, including the development of the major political, social, and economic institutions and ideals in the entire area which is now the United States, with a special emphasis on the roles of major ethnic and social groups.

[CSU; UC; CSU-GE, AREA D, C2; IGETC, AREA 3,4]

[C-ID HIST 130]

HIS-17B. United States History B (3)

All Terms

Lec 54 Hrs

Historical survey of the United States from the end of the Civil War to the present.

[CSU; UC; CSU-GE, AREA C2, D; IGETC, AREA 3, 4]

[C-ID HIST 140]

HIS-40. History of Women in the U.S. (3)

All Terms

Lec 54 Hrs

A survey of women in American history from the Indigenous period to the present in the entire area which is now the United States with special emphasis on the roles of women in the major ethnic and social groups.

[CSU; UC; CSU-GE, AREA C2, D; IGETC, AREA 3, 4]

HIS-46A. Race and Ethnicity in American History A (3)

Fall Only

Lec 54 Hrs

A survey of the historical, social, political, economic, and cultural experiences of African Americans, Chicanos/Latinos, Asian Americans, Pacific Islanders, and Native Americans in the United States from the Indigenous period through the Civil War.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]

HIS-46B. Race and Ethnicity in American History B (3)

Spring Only

Lec 54 Hrs

A survey of the historical, political, social economic and cultural experiences of African Americans, Chicanos/Latinos, Asian Americans, Pacific Islanders, and Native Americans in the United States from Reconstruction to the present.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]

HIS-47. Religions of the World (3)

Fall/Spring

Lec 54 Hrs

A survey of the world's major religions with emphasis on the origins, historical developments and basic teachings of Indigenous religious beliefs, Hinduism, Buddhism, Confucianism, Judaism, Christianity and Islam and their political, social and economic impact on the world.

[CSU; UC; CSU-GE, AREA C2, D6; IGETC, AREA 3]

HIS-49A. Chicano History A (3)

Lec 54 Hrs

A history of the Chicano experience and culture from the Indigenous cultures of Mexico, and the Spanish, Mexican and United States periods to 1848.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 3]

HIS-49B. Chicano History B (3)

Lec 54 Hrs

A survey of Chicano history and culture from 1848 to the present emphasizing the social, cultural, political, and economic roles of Chicanos in the United States.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 3]

HIS-55. U.S. History through Film (3)

Lec 54 Hrs

A study, overview, introduction, and survey of American feature films as historical documents relevant to United States history since the end of the Civil War. The course emphasizes a historical analysis of how films, as cultural and historical documents, add to our understanding of the time period during which they were made. Students in this course examine how films from the past have commented upon race, gender, war, class, politics, and other important topics.

[CSU; CSU-GE, AREA C2, D]

INSTRUCTIONAL AIDE

INS-250. Tutor Training (0.5 - 1)**Pass/No Pass Only****Lec 9 - 18 Hrs**

Provides an introduction to the theories and methods of effective tutoring, including interviewing, identification of learning problems, the study and development of effective communication techniques, and the use of learning theories and methods of effective individualized and group instruction. Opportunities will be provided for evaluation of and experience in tutoring situations. The course is offered on an open entry/open exit basis; it is designed to introduce students to tutoring and supplemental instruction best practices in one-half unit modules. Students will consult with an instructor regarding the scheduling of their hours. Students may enroll in this course again if needed to complete both content areas.

INS-301. Supervised Tutoring (0)**All Terms****Lab 0 Hrs**

Provides tutoring support services and offers opportunities for study skills assessment and development, individual and group instruction under peer tutors, and other assistance to help students fulfill their course requirements for a variety of college courses. Counselor or instructor referral required.

INTERDISCIPLINARY STUDIES

IDS-1. Boronda Study Group (3)**Pass/No Pass Only****Lec 54 Hrs**

Preparatory study of the host site selected for the annual Boronda Study Travel Program. Study of the history, culture and artistic traditions of the site or country.

[CSU]**IDS-2. Boronda Study Program - Life and Culture (3)****Prerequisite:** IDS-1 with a grade of "C" or better.**Advisory:** Selection by the Boronda Scholarship Committee.**Pass/No Pass Only****Lec 54 Hrs**

A survey of the history, culture and civilization of the host country with emphasis on art, music, and literature.

[CSU]

PATHWAY TO LAW

LAW-41. Street Law (3)**Advisory:** ENG-1A**Fall Only****Lec 54 Hrs**

Designed to provide students with practical information about areas of the law that affect the daily lives of all U.S. residents. Students participate in activities designed to develop analytic and advocacy skills. Students are introduced to fundamental civil, criminal, and constitutional law principles. Students review basic legal reasoning, introductory research methods, and principles of legal ethics and sources of rules governing attorney conduct. This course is recommended for students interested in pursuing a legal career, but any student who wants a better understanding of the law and how it impacts their lives will benefit from this course.

[CSU; UC] [C-ID LPPS 110]**LAW-42. Law and Public Service (3)****Prerequisite:** LAW-41 with a grade of "C" or better.**Spring Only****Lec 54 Hrs**

This course provides service learning in community, civic or legal settings. The focus is on specific problems in the community. Students put discipline-specific knowledge into practice through hands-on work with nonprofit organizations. The service learning experience challenges students to broaden their understanding of social justice issues by providing them with a larger social context in which to understand the systematic problems that members of society face. Students will develop skills and knowledge in providing service to others. Students will gain a better understanding of their responsibility to civic-engagement in a democratic society. This course requires 3 hours per week of volunteer service with local community service organizations, or for students able to obtain paid legal internships, 3 work hours per week can be substituted.

[CSU]

LEARNING SKILLS, DSPS

LSK-1. Introduction to College and Accommodations (1.5)**Pass/No Pass Option****Lec 27 Hrs**

Our course is designed to prepare students in the transition from high school to college, with a focus on students requiring special classroom accommodations related to disabilities. Throughout the course, students will develop knowledge of the academic policies, resources, and campus programs available to students. Students will learn about the California system of higher education and develop an educational and program plan.

COURSE LISTINGS

LSK-90. Memory Skills (1)

Pass/No Pass Only

Lec 18 Hrs

During this course, we will explore ways to improve your memory and memorization techniques as it applies to college coursework, studying, test-taking, and other personal and social situations. Students with identified memory and concentration deficits learning disabilities, and other learning challenges are encouraged to register.

[CSU]

LSK-105. Emotional Management Skills (1.5)

Pass/No Pass Only

Lec 27 Hrs

Introduction to specific behavioral approaches designed to identify and manage negative feelings. Positive peer support and self-talk skills designed to help students manage life-disrupting problems, emotions, and events. Designed for students with ongoing and identified behavioral and emotional challenges. Not open to students who have completed COU-105 with a grade of "CR" or "P".

LSK-126. Learning Strategies (1.5)

Other: *Recommended for all first-time college students with disabilities. Recommended for all returning students with disabilities.*

Pass/No Pass Only

Lec 27 Hrs

Assists students with disabilities to succeed in college through a better understanding of their own individual learning styles, aptitudes, and behaviors. Students gain exposure to a variety of "best practice" study skills to succeed in college. Identification and analysis of individual learning barriers such as learning disabilities, emotional management, or physical challenges.

LIBRARY INSTRUCTION

LIB-2. Introduction to the Academic Library and Information Competency (1)

Advisory: *Eligibility for ENG-1A*

Pass/No Pass Option

Fall/Spring

Lec 9 Hrs Lab 27 Hrs

An introduction to the college library, its resources, and information competency skills necessary for student success and lifelong learning.

[CSU; UC]

LIB-5. Information Competency in the Sciences and Applied Technology (1)

Advisory: *Eligibility for ENG-1A*

Pass/No Pass Option

Spring Only

Lec 9 Hrs Lab 27 Hrs

An introduction to the information competency skills required to locate, evaluate, and cite materials in the sciences and applied technology. [CSU; UC]

LIB-6. Information Competency in the Social Sciences (1)

Advisory: *Eligibility for ENG-1A*

Pass/No Pass Option

Fall Only

Lec 9 Hrs; Lab 27 Hrs

An introduction to the information competency skills required to locate, evaluate, and cite materials in the social sciences.

[CSU; UC]

LIB-7. Information Competency in the Arts and Humanities (1)

Advisory: *ENG-1A*

Pass/No Pass Option

Summer Only

Lec 9 Hrs; Lab 27 Hrs

An introduction to the information competency skills required to locate, evaluate, and cite materials in the arts and humanities.

[CSU; UC]

MANUFACTURING TECHNOLOGY

MFGT-70. Introductions to Mechanized Agriculture (3)

Lec 36 Hrs; Lab 54 Hrs

Introduction to mechanized agriculture involves basic mechanical skills in woodworking, cold metal, electricity, plumbing, concrete, and project construction skills as related to farm maintenance and repair. Hand and power tool use skills will be developed. Safety practices for all mechanical areas will be covered. Formerly AGR-56 and AIT-70. Not open to students who have completed AGR-56 or AIT-70 with a grade of "C" or better.

[CSU]

MFGT-71. Agricultural and Industrial Equipment Operation (3)

Lec 36 Hrs; Lab 54 Hrs

Design principles, selection, maintenance, adjustment, and safe operation of wheel and track type tractors used in agriculture and in the construction industry. Students will operate a variety of equipment. Principles and application of safety will be stressed.

[CSU]

MFGT-75. Agricultural Machinery Management (3)*Lec 36 Hrs; Lab 54 Hrs*

Use, maintenance, adjustment, calibration, and repair of the equipment commonly used in California agriculture. Emphasis on primary and secondary tillage, planting, chemical application, harvesting and shop equipment. Safety will be stressed throughout. Formerly AGR-94 or AIT-75. Not open to students who have completed AGR-94 or AIT-75 with a grade of "C" or better.

[CSU; UC]**MFGT-110. Industrial Safety (2)***Lec 18 Hrs; Lab 54 Hrs*

An introductory course on all aspects of safety as it relates to industry. The course will cover the following topics: Hazardous materials, personal protective equipment, materials handling and storage, industrial hygiene, safety inspections, and general industrial safety of proper use of tools and machines. Students may have the opportunity to receive an OSHA 10 or OSHA 30 card. Work appropriate clothing is required for this course including (but not limited to) long pants that cover the wearer to the ankle and closed-toe shoes.

MFGT-111A. Fundamentals of Agricultural Mechatronics A (2)*Pass/No Pass Option**Lec 18 Hrs; Lab 54 Hrs*

The first of two introductory courses in agricultural mechatronics. Topics include the history of mechatronics and Industry 4.0, precision instruments, basic mathematics, hand and power tools, and mechatronic fundamentals. Work appropriate clothing is required for this course including (but not limited to) long pants that cover the wearer to the ankle and closed-toe shoes.

MFGT-111B. Fundamentals of Agricultural Mechatronics B (2)*Prerequisite: MFGT-111A**Pass/No Pass Option**Lec 18 Hrs; Lab 54 Hrs*

The second of two introductory courses in agricultural mechatronics. Topics include mechanical hydraulic systems, pneumatic systems, and fundamentals of Programmable Logic Controllers. Work appropriate clothing is required for this course including (but not limited to) long pants that cover the wearer to the ankle and closed-toe shoes.

MFGT-112A. Intermediate Agricultural Mechatronics A (2)*Prerequisite: MFGT-111B**Pass/No Pass Option**Lec 18 Hrs; Lab 54 Hrs*

The first of two intermediate courses in agricultural mechatronics. Students will build on the topics covered in the introductory courses and learn more about installing and maintaining mechatronics equipment. Topics include fasteners and torque, commercial wiring, commercial plumbing, basic smart sensors, basic data analytics, and basic robotics. Work appropriate clothing is required for this course including (but not limited to) long pants that cover the wearer to the ankle and closed-toe shoes.

MFGT-112B. Intermediate Agricultural Mechatronics B (2)*Prerequisite: MFGT-112A**Pass/No Pass Option**Lec 18 Hrs; Lab 54 Hrs*

The second of two intermediate courses in agricultural mechatronics. Students will build on the topics covered in the introductory courses and learn more about installing and maintaining mechatronics equipment. Topics include electro-pneumatics, electro-hydraulics, intermediate programming of Programmable Logic Controllers (PLCs) for mechatronic systems, basic industrial electric motors, and basic industrial mechanical drive systems. Work appropriate clothing is required for this course including (but not limited to) long pants that cover the wearer to the ankle and closed-toe shoes.

MFGT-113. Applied Agricultural Mechatronics Processing (4)*Prerequisite: MFGT-112B with a grade of "C" or better**Lec 36 Hrs; Lab 108 Hrs*

The third course in the agricultural mechatronics sequence for indoor processing of value-added agricultural products. Students will learn how to install, maintain, calibrate, and program automated equipment used in these facilities. Topics include process control (the movement of water using automation), industrial motor controls, applied Industry 4.0, product identification, smart sensors, advanced programmable logic controllers and human-machine interface, and robotic systems. Work appropriate clothing is required for this course including (but not limited to) long pants that cover the wearer to the ankle and closed-toe shoes.

COURSE LISTINGS

MFGT-114. Advanced Agricultural Process Automation (4)

Prerequisite: MFGT-113 with a grade of "C" or better

Lec 36 Hrs; **Lab** 108 Hrs

The fourth course in the agricultural mechatronics sequence for indoor processing of value-added agricultural products. Students will use engineering design method and apply advanced troubleshooting techniques on automated processing equipment. Topics include emergency systems, control loops, data networks, programmable logic controllers (PLC), control systems, and troubleshooting of fluid power, electrical, process control, and programming systems. Work appropriate clothing is required for this course including (but not limited to) long pants that cover the wearer to the ankle and closed-toe shoes.

MFGT-130. Introduction to Metal Fabrication (3)

Pass/No Pass Option

Lec 27 Hrs; **Lab** 81 Hrs

Introduction to metal fabrication. Students will learn the safe and proper use of fabrication tools and equipment. Students will plan a project, develop a bill of materials, and complete the project using proper fabrication techniques. Work appropriate clothing is required for this course including (but not limited to) long pants that cover the wearer to the ankle and closed-toe shoes.

MFGT-131. Intermediate Metal Fabrication (3)

Prerequisite: MFGT-130 with a grade of "C" or better.

Pass/No Pass Option

Lec 27 Hrs; **Lab** 81 Hrs

Second of three metal fabrication courses with a focus on advanced fabrication equipment including robotic welding, CNC plasma, mill, lathe, and advanced arc welding processes. Students also can complete more challenging projects. Work appropriate clothing is required for this course including (but not limited to) long pants that cover the wearer to the ankle and closed-toe shoes.

MFGT-132. Advanced Metal Fabrication (3)

Prerequisite: MFGT-131 with a grade of "C" or better.

Pass/No Pass Option

Lec 27 Hrs; **Lab** 81 Hrs

Third of three metal fabrication courses with a focus on planning and completing complex projects using advanced technology in agricultural mechatronics. This may include automation, vision, electronics, fluid power, and robotics. Work appropriate clothing is required for this course including (but not limited to) long pants that cover the wearer to the ankle and closed-toe shoes.

MFGT-140. Introduction to Industrial Hydraulics and Pneumatics (2)

Lec 27 Hrs; **Lab** 27 Hrs

Introduction to hydraulic and pneumatic principles, fluid safety, system components and applications. The course will explore principles of physics as they pertain to fluid power, differences in hydraulics and pneumatics, as well as the characteristics of liquids and gases. Students will study schematics and blueprints, industrial standards, and the technical language of fluid power.

MFGT-141. Intermediate Industrial Hydraulics and Pneumatics (2)

Prerequisite: MFGT-140 with a grade of "C" or better.

Lec 27 Hrs; **Lab** 27 Hrs

Second course in industrial hydraulics and pneumatics stressing the installation and insulation of systems and components, planned maintenance, and basic troubleshooting in industrial settings. Topics include the selection of fluids and filters used in fluid power applications, diagnosing and repairing system failures, and determining maintenance requirements. The course will also include hands-on comprehensive group projects that showcase the design, building and troubleshooting of fluid power systems.

MFGT-150. Introduction to Industrial Electricity (2)

Lec 27 Hrs; **Lab** 27 Hrs

A study of electrical maintenance in plant operations. Stresses safety, proper use of tools, principles of electricity, basic electrical circuits, electrical conductors, grounding techniques, wire practices and layouts.

MFGT-151. Intermediate Industrial Electricity (2)

Prerequisite: MFGT-150 with a grade of "C" or better.

Lec 27 Hrs; **Lab** 27 Hrs

The second course in electrical maintenance within plant operations. Stresses application of electrical fundamentals in power distribution, systems applications, generators, inverters, motors, and motor controls.

MFGT-180. Industrial Workplace Skills (1)

Lec 18 Hrs

Basic work and personal skills needed for success on the job in an industrial environment. Formerly AIT-180. Not open to students who have completed AIT-180 with a grade of "C" or better.

MFGT-300. Core Curriculum: Introductory Craft Skills

Pass/No Pass Option

Lab 80-90

Introductory course for programs in various industrial trades. Emphasis on general construction safety, construction math, common hand tools, common power tools, rigging, material handling, construction drawings, communication skills and employability skills. Work appropriate clothing is required for this course including (but not limited to) long pants that cover the wearer to the ankle and closed-toe shoes.

MFGT-301A. Industrial Maintenance Electrical & Instrumentation Mechanic Level 1A

Prerequisite: MFGT-300 with a grade of "C" or better.

Pass/No Pass Only

Lab 80-90

The first of two courses for Level 1 training as an Industrial Maintenance Electronics & Instrumentation Technician. Students should also plan to enroll in MFGT 301B. Students will learn the basics of Hand and Power Tools, Fasteners and Anchors, Oxyfuel Cutting, Gaskets and Packing, Rigging, and the safe use of support equipment (Forklift, Manlift, Generators, etc.) Work appropriate clothing is required for this course including (but not limited to) long pants that cover the wearer to the ankle and closed-toe shoes.

MFGT-301B. Industrial Maintenance Electrical & Instrumentation Mechanic Level 1B

Prerequisite: MFGT-300 with a grade of "C" or better.

Pass/No Pass Only

Lab 80-90

The second of two courses for Level 1 training as an Industrial Maintenance Electronics & Instrumentation Technician. Students should also plan to enroll in MFGT 301A. Students will learn the basics of pumps, valves, test instruments, construction math, construction drawings, machine lubrication. Work appropriate clothing is required for this course including (but not limited to) long pants that cover the wearer to the ankle and closed-toe shoes.

MFGT-302A. Industrial Maintenance Electrical & Instrumentation Mechanic Level 2A

Prerequisite: MFGT-301A and MFGT-301B with a grade of "C" or better.

Pass/No Pass Only

Lab 80-90

The first of two courses for Level 2 training as an Industrial Maintenance Electronics & Instrumentation Technician. Students should also plan to enroll in MFGT 302B. Students will receive in-depth training in Industrial Safety, the National Electrical Code, Electrical Theory, Alternating Current, and Flow, Pressure, Level, and Temperature systems. Work appropriate clothing is required for this course including (but not limited to) long pants that cover the wearer to the ankle and closed-toe shoes.

MFGT-302B. Industrial Maintenance Electrical & Instrumentation Mechanic Level 2B

Prerequisite: MFGT-301A and MFGT-301B with a grade of "C" or better.

Pass/No Pass Only

Lab 80-90

The second of two courses for Level 2 training as an Industrial Maintenance Electronics & Instrumentation Technician. Students should also plan to enroll in MFGT 302A. Students will receive in-depth training in using testing equipment, bending, cleaning, and purging of tubes and pipes, and installing conductors and cables. Work appropriate clothing is required for this course including (but not limited to) long pants that cover the wearer to the ankle and closed-toe shoes.

MATHEMATICS

MAT-2. Calculus for Managerial, Life, and Social Sciences (4)

Prerequisite: Intermediate Algebra or equivalent or placement beyond.

Advisory: MAT-25

Lec 72 Hrs

Linear and quadratic models, introduction to limits, the derivative and its applications, the integral and its applications, methods of integration, and differential equations. Applications from the management sciences, life sciences, and social sciences are considered throughout the course. This course is primarily for students in business, social sciences, and biological sciences.

[CSU; UC; CSU-GE, AREA B4; IGETC, AREA 2]

[C-ID MATH 140]

MAT-3A. Analytic Geometry and Calculus I (4)

Prerequisite: MAT-24 and MAT-25 with a grade of "C" or better or MAT-27 with a grade of "C" or better or placement by Hartnell's assessment.

Lec 72 Hrs

A first course in differential and integral calculus of a single variable: functions; limits and continuity; techniques and applications of differentiation and integration; Fundamental Theorem of Calculus. Primarily for Science, Technology, Engineering & Math Majors.

[CSU; UC; CSU-GE, AREA B4; IGETC, AREA 2]

[C-ID MATH 210] [C-ID MATH 900S with MAT-3B]

COURSE LISTINGS

MAT-3B. Analytic Geometry and Calculus II (4)

Prerequisite: MAT-3A with a grade of "C" or better.

Lec 72 Hrs

A second course in differential and integral calculus of a single variable: integration; techniques of integration; infinite sequences and series; polar and parametric equations; applications of integration. Primarily for Science, Technology, Engineering & Math Majors.

[CSU; UC; CSU-GE, AREA B4; IGETC, AREA 2]

[C-ID MATH 220] [C-ID MATH 900S with MAT-3A]

MAT-3C. Analytic Geometry and Calculus III (4)

Prerequisite: MAT-3B with a grade of "C" or better.

Lec 72 Hrs

The third course in a three-course series. Vector valued functions, calculus of functions of more than one variable, partial derivatives, multiple integration, Green's Theorem, Stokes' Theorem, divergence theorem.

[CSU; UC; CSU-GE, AREA B4; IGETC, AREA 2]

[C-ID MATH 230]

MAT-4. Linear Algebra (3)

Prerequisite: MAT-3B with a grade of "C" or better.

Advisory: MAT-3C

Lec 54 Hrs

This course develops the techniques and theory needed to solve and classify systems of linear equations. Solution techniques include row operations, Gaussian elimination, and matrix algebra. Investigates the properties of vectors in two and three dimensions, leading to the notion of an abstract vector space. Vector space and matrix theory are presented including topics such as inner products, norms, orthogonality, eigenvalues, eigenspaces, and linear transformations. Selected applications of linear algebra are included.

[CSU; UC; CSU-GE, AREA B4; IGETC, AREA 2]

[C-ID MATH 250]

MAT-5. Differential Equations (3)

Prerequisite: MAT-3B with a grade of "C" or better.

Lec 54 Hrs

Differential equations of the first, second, and higher order. Solution techniques for homogeneous and non-homogeneous differential equations, including series solutions at ordinary points and at singular points; Laplace transforms; and linear systems. Solutions will be analytic, qualitative, and quantitative, including numerical methods. Applications from a variety of fields will be presented.

[CSU; UC; CSU-GE, AREA B4; IGETC, AREA 2]

[C-ID MATH 240]

MAT-7. Discrete Mathematics (4)

Prerequisite: MAT-25 or MAT-27 with a grade of "C" or better.

Advisory: MAT-3A: Analytic Geometry and Calculus I

Lec 72 Hrs

This course includes sets and sequences, elementary logic, relations, induction, counting principles, discrete probability, Boolean algebra, logic networks, matrices, graph theory, and trees, applying these topics to real life and branches of science, particularly computer science. This course is designed to bridge the gap between computation-oriented introductory math courses and proof-oriented advanced math courses. This course is highly recommended for students who plan to pursue programs and majors that may involve advanced math courses.

[CSU; UC; CSU-GE, AREA B4] [C-ID MATH 160]

MAT-10. Math for Liberal Arts (3)

Prerequisite: Intermediate Algebra or equivalent or placement beyond.

Lec 54 Hrs

An overview of fundamental concepts of modern mathematics for liberal arts students. Introduces non-science majors to a variety of mathematical ideas, methods, and historical trends. Core topics are logic, set theory, numeration systems, number systems, number theory, axiomatic theories and models, and methods of proof. Additional topics may include: history of mathematics, geometry, counting techniques, probability and statistics, and calculus concepts.

[CSU; UC; CSU-GE, AREA B4; IGETC, AREA 2]

MAT-12. Number Systems (3)

Prerequisite: Intermediate Algebra or equivalent or placement beyond.

Lec 54 Hrs

Intended primarily for prospective elementary school teachers. Focuses on the development of quantitative reasoning skills through in-depth, integrated explorations of topics in mathematics, including real number systems and subsystems. The emphasis is on problem solving strategies, comprehension and analysis of mathematical concepts and the ideas underlying the common arithmetic algorithms taught to children.

[CSU; UC; CSU-GE, AREA B4; IGETC, AREA 2]

[C-ID MATH 120]

MAT-13. Elementary Statistics (4)

Prerequisite: *Intermediate Algebra or equivalent or placement beyond.*

Lec 72 Hrs

Covers the use of probability techniques, hypothesis testing, and predictive techniques to facilitate decision-making. Topics include descriptive statistics, probability and sampling distributions; statistical inference; correlation and linear regression; analysis of variance, chi-square and t-tests; and application of technology for statistical analysis. Focuses on the interpretation and relevance of the statistical findings. Applications use data from a broad range of disciplines.

[CSU; UC; CSU-GE, AREA B4; IGETC, AREA 2]

[C-ID MATH 110]

MAT-16. Finite Mathematics (3)

Prerequisite: *Intermediate Algebra or equivalent or placement beyond.*

Lec 54 Hrs

A study of linear functions, systems of linear equations and inequalities, matrices, linear programming, mathematics of finance, sets and Venn diagrams, combinatorial techniques and an introduction to probability. This course contains applications in business, economic and social sciences.

[CSU; UC; CSU-GE, AREA B4; IGETC, AREA 2]

[C-ID MATH 130]

MAT-24. Trigonometry (3)

Prerequisite: *Intermediate Algebra or equivalent or placement beyond.*

Advisory: *MAT-25: Pre-Calculus Mathematics due to the nature of functions and equations encountered in MAT-24. Students will need experience with graphing functions, domain, range and techniques of solving. Familiarity with Geometry.*

Lec 54 Hrs

Trigonometric functions, inverse trigonometric functions and their graphs, solutions to right and oblique triangles, identities and conditional trigonometric equations, analytic trigonometry, introduction to vectors, and complex numbers. This course, along with MAT-25, is designed to prepare students for Calculus.

[CSU; CSU-GE, AREA B4]

MAT-25. Pre-Calculus (4)

Prerequisite: *Intermediate Algebra or equivalent or placement beyond.*

Lec 72 Hrs

A study of polynomial functions, rational functions, exponential functions and logarithmic functions, graphing techniques, systems of equations, matrices, determinants, parametric equations. This course is designed to prepare students for Calculus I.

[CSU; UC; CSU-GE, AREA B4; IGETC, AREA 2]

MAT-27. Accelerated Pre-Calculus & Trigonometry for STEM (6)

Prerequisite: *Intermediate Algebra or equivalent or placement beyond.*

Lec 108 Hrs

The study of functions, their properties, their graphs, and their applications: polynomial, absolute value, radical, rational, exponential, logarithmic, trigonometric, and trigonometric inverses. The course will also introduce students to the use of analytic geometry, trigonometric identities and proofs related to trigonometric expressions, solving equations involving the previously listed functions, solving right triangles and non-right triangles, and introduction to vectors and polar coordinates. This course includes the content of both MAT-25 (pre-calculus) and MAT-24 (trigonometry) and prepares a student for Calculus I. This course is considered an acceleration and is designed for science, technology, engineering, and mathematics (STEM) majors.

[CSU; UC; CSU-GE, AREA B4; IGETC 2A; for UC 4 units only]

MAT-213. Lab for Statistics (1)

Corequisite: *MAT-13*

Pass/No Pass Only

Lab 54 Hrs

A review of the core prerequisite skills, competencies, and concepts needed in statistics. Intended for students who are concurrently enrolled in MAT 13, Elementary Statistics, at Hartnell College. Topics include concepts from arithmetic, pre-algebra, elementary and intermediate algebra, and descriptive statistics that are needed to master college-level statistics topics. Additional emphasis is placed on solving and graphing linear equations and modeling with linear functions.

MAT-225. Lab for Precalculus (1)

Corequisite: *MAT-25*

Pass/No Pass Only

Lab 54 Hrs

A review of the core prerequisite skills, competencies, and concepts for Precalculus. Intended as a corequisite support lab for students enrolling in Precalculus. Includes computational skills, factoring and simplification of expressions review. Provides support for students in solving polynomial, rational, radical, exponential and logarithmic equations. The course emphasizes learning skills and attitudes of successful students.

METEOROLOGY

MET-1. Weather and Climate (3)

Pass/No Pass Option

Lec 54 Hrs

A survey of basic principles of weather and climate, including atmospheric structure and composition, regional distribution and effects of weather, solar radiation, temperature, seasonal changes, atmospheric moisture, air pressure, winds, air masses and fronts, weather forecasting, climate and climate cycles past, present and future.

[CSU; UC; CSU-GE, AREA B1; IGETC, AREA 5]

MUSIC

MUS-1A. Music Appreciation-Historical Perspective (3)

All Terms

Lec 54 Hrs

A survey of Western music from the 6th century C.E. until the present, covering the important style periods along with the composers who created them and the resources they used.

[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3]

[C-ID MUS 100]

MUS-2. Music Fundamentals (3)

All Terms

Lec 54 Hrs

An introduction to the notation and primary elements of tonal music. Incorporates the following concepts: staff notation in treble and bass clefs, rhythm and meter; basic properties of sound; intervals; diatonic scales and triads; and diatonic chords. Development of skills in handwritten notation and aural identification of musical phenomena is expected.

[CSU; UC]

[C-ID MUS 110]

MUS-5. Ethnic Musics in the United States (3)

All Terms

Lec 54 Hrs

Introduction to selected ethnic musics that flourish in the United States including: Hispanic/Latino, Chicano/Mexican- American, Black African-American, Native American, Asian- American, Pacific Islander, and European traditions. The course focuses on the relation of musical genres and movements to the history of the United States and to the society and culture of the country.

[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3]

MUS-6. Hawaiian Music (3)

Fall/Spring

Lec 54 Hrs

Music of Hawaii from ancient to modern times. Covers chants and chanting styles, hula kahiko and auwana, and contemporary music. Incorporates elements of Hawaiian language, culture and dance (hula). Includes the impact of foreigners on Hawaiian music and culture, and Hawaii's impact on the musical world. Musical instruments are covered in depth, plus their impact on other music.

[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3]

MUS-7. Jazz Appreciation (3)

Fall/Spring

Lec 54 Hrs

A survey of the history of vocal and instrumental jazz music from the late 1800's to the present covering the important jazz styles along with the artists who created them and the cultural, social, political, and economic factors which influenced the art form. The influence of such social themes as slavery, racial segregation, the civil rights movement, and immigration on jazz will be studied.

[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3]

MUS-8. American Popular Music (3)

All Terms

Lec 54 Hrs

A historical survey of American popular music, tracing their development from roots in blues, jazz, gospel, and country music to the music of today including (but not limited to) top 40, rap, reggae, world music, heavy metal, soul and all types of rock. This course is intended to help you think creatively and critically about popular music. Themes explored will include: (1) the interaction of European American, African American, and Latin American traditions, (2) the role of popular music as an expression of racial and gender identity, and (3) the influences of mass media on popular culture.

[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3]

MUS-10. Applied Music - Voice (1)

Fall/Spring

Lab 54 Hrs

Class instruction in the art of singing. Topics include physical and mental poise, breathing, use of the organs of articulation, vowels, tone production, and vocal literature.

[CSU; UC]

MUS-11. Applied Music - Instrumental (0.5)

Prerequisite: Audition is required.

Fall/Spring

Lab 27 Hrs

Provides opportunities for students to get feedback about their performance on a musical instrument in a supportive environment. Course may be repeated 3 times.

[CSU; UC] [C-ID MUS 160]

MUS-13A. Beginning Piano I (1.5)**Advisory:** MUS-2**Fall/Spring****Lec 18 Hrs; Lab 36 Hrs**

Beginning piano study including introduction to the keyboard and music reading. Piano classes may be repeated at the appropriate level, but total piano enrollments are limited to four.

[CSU]**MUS-13B. Beginning Piano II (1)****Advisory:** MUS-2**Prerequisite:** MUS-13A with a grade of "C" or better.**Fall/Spring****Lec 18 Hrs; Lab 36 Hrs**

Continuation of beginning piano study. Piano classes may be repeated at the appropriate level, but total piano enrollments are limited to four.

[CSU; UC]**MUS-14. Intermediate Piano (1)****Prerequisite:** MUS-13B with a grade of "C" or better.**Fall/Spring****Lec 18 Hrs; Lab 36 Hrs**

Intermediate piano study covering the fundamentals of technique, style and interpretation. Solo and ensemble performance from standard piano literature. Piano classes may be repeated at the appropriate level, but total piano enrollments are limited to four.

[CSU; UC]**MUS-15. Advanced Piano (1)****Prerequisite:** MUS-14 with a grade of "C" or better.**Fall/Spring****Lec 18 Hrs; Lab 36 Hrs**

Advanced piano study, a continuation of MUS-14. Piano classes may be repeated at the appropriate level, but total piano enrollments are limited to four.

[CSU; UC]**MUS-17A. Beginning Guitar I (1.5)****Fall/Spring****Lec 18 Hrs; Lab 36 Hrs**

Class instruction on guitar at the beginning level. Covers position, right and left-hand playing techniques, tuning, and the basics of musical notation. Students must bring their own unamplified guitar.

[CSU; UC]**MUS-17B. Beginning Guitar II (1.5)****Prerequisite:** MUS-17A with a grade of "C" or better.**Fall/Spring****Lec 18 Hrs; Lab 36 Hrs**

Class instruction on guitar at the beginning level. Covers position, right and left-hand playing techniques, tuning, and the basics of musical notation. Students must bring their own unamplified guitar.

[CSU; UC]**MUS-17C. Intermediate Guitar I (1.5)****Prerequisite:** MUS-17B with a grade of "C" or better.**Fall/Spring****Lec 18 Hrs; Lab 36 Hrs**

Instruction on guitar to include playing in 2nd and 3rd position, study of classical and contemporary solos and etudes, and an introduction to ensemble playing. Students must bring their own unamplified guitar.

[CSU]**MUS-17D. Intermediate Guitar II (1.5)****Prerequisite:** MUS-17C with a grade of "C" or better.**Fall/Spring****Lec 18 Hrs; Lab 36 Hrs**

Continued instruction on guitar at the upper intermediate level including 2nd and 3rd positions, vibrato, harmonics, classical and contemporary solos and etudes, and ensemble playing. Students must bring their own unamplified guitar.

[CSU; UC]**MUS-20. Hartnell College Choir (1)****Prerequisite:** Audition is required.**Fall/Spring****Lab 54 Hrs**

A performance group studying the choral literature ranging from works of the early masters to modern composers. This course is not limited to music majors. Students majoring in vocal music are expected to enroll in the choir for two years. May be repeated for credit to a maximum of 4 units.

[CSU; UC] [C-ID MUS 180]**MUS-21. Hartnell Chamber Singers (1)****Prerequisite:** Audition is required.**Fall/Spring****Lab 54 Hrs**

A vocal ensemble devoted to the study and performance of musical literature suited to a small group of singers. May be repeated for credit to a maximum of 4 units.

[CSU; UC] [C-ID MUS 180]**MUS-25. Hartnell College Wind Ensemble (1)****Prerequisite:** Audition is required.**Fall/Spring****Lab 54 Hrs**

A performance group studying literature for the small wind ensemble. Performances include concerts and playing at college and community events. Open to all students who play a wind or percussion instrument. Music majors specializing in instrumental music are expected to participate for two years. May be repeated for credit to a maximum of 4 units. Audition is required.

[CSU; UC]

COURSE LISTINGS

MUS-26. Jazz Ensemble (1)

Prerequisite: Audition is required.

Fall/Spring

Lab 54 Hrs

A performance group studying literature for the jazz ensemble. Performances include concerts and playing at college and community events. Open to all students who play piano, bass, drums, guitar, saxophone, trumpet or trombone. May be repeated for credit to maximum of 4 units.

[CSU; UC] [C-ID MUS 180]

MUS-37. Hartnell Orchestra (1)

Advisory: Ability to play a musical instrument.

Fall/Spring

Lab 54 Hrs

Students will study and perform orchestral music repertoire for strings, woodwinds, brass, and percussion.

[CSU; UC]

MUS-42. Electronic Music-history and composition (3)

Spring

Lec 54 Hrs

This course presents an overview of the history of electronic music from the late 19th century through to the present, with an emphasis on the cultural elements of each historical trend. Students will analyze historically significant works from the experimental art music of the mid-20th century through the popular forms of the 21st century.

[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3A]

MUS-43. MIDI Sequencing (3)

Prerequisite: MUS-42 with a grade of "C" or better.

Spring

Lec 54 Hrs

Introduction to MIDI sequencing using a computer. Includes hardware and software selection and set-up, click tracks, quantizing, looping, multi-timbral operations, step-time recording, CD creation, MIDI for web pages. Creation of original MIDI sequences.

[CSU]

MUS-46. Music Theory and Musicianship, I (4)

Prerequisite: MUS-2 with a grade of "C" or better.

Advisory: Familiarity with musical notation, piano keyboard and ensemble playing MUS-13A and MUS-20 or MUS-26 or MUS-36 or MUS-37.

Fall Only

Lec 45 Hrs; Lab 81 Hrs

The diatonic system of harmony from an analytical and practical point of view, including the basic elements of voice leading, musical analysis and chord usage, concentrating on the aesthetic and cultural qualities of the music. Students will do sight-singing and ear training using diatonic materials. Not open to students who have completed both MUS-50A and MUS-51A with a "C" grade or better.

[CSU; UC] [C-ID MUS 120] [C-ID MUS 125]

MUS-47. Music Theory and Musicianship II (4)

Prerequisite: MUS-46 with a grade of "C" or better.

Advisory: Familiarity with musical notation, piano keyboard and ensemble playing MUS-13A and MUS-26 or MUS-36 or MUS-37 or MUS-20.

Spring Only

Lec 45 Hrs; Lab 81 Hrs

Continuation of MUS-46. The diatonic system of harmony from an analytical and practical point of view, including voice leading, musical analysis and chord usage, concentrating on the aesthetic and cultural qualities of the music. Students will continue to do sight-singing and ear training using diatonic materials. Not open to students who have completed both MUS-50B and MUS-51B with a "C" grade or better.

[CSU; UC] [C-ID MUS 130] [C-ID MUS 135]

MUS-48. Music Theory and Musicianship III (4)

Prerequisite: MUS-47 with a grade of "C" or better.

Advisory: Familiarity with musical notation, piano keyboard and ensemble playing MUS-13A and MUS-26 or MUS-36 or MUS-37 or MUS-20.

Fall Only

Lec 45 Hrs; Lab 81 Hrs

Chromatic harmony, form, musical analysis, and orchestration. Students will do sight-singing and ear training using chromatic materials. Not open to students who have completed both MUS-52A and MUS-53A with a "C" grade or better.

[CSU; UC] [C-ID MUS 140] [C-ID MUS 145]

MUS-49. Music Theory and Musicianship IV (4)

Prerequisite: MUS-48 with a grade of "C" or better.

Advisory: Familiarity with musical notation, piano keyboard, and ensemble playing. MUS 13A or MUS 13B or MUS 14 or MUS 15 and MUS 20 or MUS 26 or MUS 36 or MUS 37

Spring Only

Lec 45 Hrs; Lab 81 Hrs

Continuation of chromatic harmony and introduction of 20th century harmonic techniques, form, musical analysis, and orchestration. Students will do sight-singing and ear-training using the literature of the music of the 19th and 20th centuries.

[CSU; UC] [C-ID MUS 150] [C-ID MUS 155]

MUS-420. Ensemble Performance for Older Adults (0)

Pass/No Pass Only

Students will rehearse and perform a wide range of musical literature. Designed to enrich the quality of life for older adult learners by emphasizing the cognitive and emotional benefits of playing music. These benefits include the ability to manage the stresses and alleviate the pain common to older adults.

NURSING-REGISTERED

NRN-46. Health Promotion and Foundational Health Concepts Across the Lifespan (6.5)

Prerequisite: Admission to Associate Degree Registered Nursing Program.

Fall Only

Lec 54 Hrs Lab 189 Hrs

Focuses on foundational concepts necessary for the provision of safe nursing care to diverse individuals across the lifespan with a focus on health promotion and professional role acquisition. Application of knowledge and skills occurs across the care continuum: in simulation lab, acute care facilities, and community settings. The core values of comportsment, competence, caring, collaboration, and curiosity are introduced.

[CSU]

NRN-47. Social Determinants of Health (with Special Populations) (1.5)

Prerequisite: Admission to Associate Degree Registered Nursing Program.

Fall Only

Lec 18 Hrs Lab 27 Hrs

Focuses on concepts of health promotion, health disparities, culture/spirituality, and family dynamics when providing safe nursing care in non-acute medical-surgical and community settings. Incorporates nursing interventions that considers the impact of social determinants of health and demonstrates sensitivity to the values of others across the life span. The core values of caring and collaboration are emphasized.

[CSU]

NRN-48. Nursing Assessment and Interventions (1.0)

Prerequisite: Admission to Associate Degree Registered Nursing Program.

Fall Only

Lab 54 Hrs

Focuses on application of foundational concepts when performing fundamental nursing skills in a laboratory setting. Emphasizes collection of subjective data from the health interview and objective data from physical examination as the basis for clinical reasoning and sound clinical judgment across the health-to-illness continuum. The core value of competence is emphasized.

[CSU]

NRN-49. Introduction to Pharmacology and Medication Administration (1.5)

Prerequisite: Admission to Associate Degree Registered Nursing Program.

Fall Only

Lec 18 Hrs Lab 27 Hrs

Focuses on professional nursing and health care concepts and pharmacological principles associated with safe medication administration. Develops competency in medication administration skills across the health-illness and lifespan continuums using care studies, scenarios and simulation. Includes calculation of medication dosages, evaluation of client responses to drug therapy, and use of reliable references. The core values of competence and curiosity are emphasized.

[CSU]

NRN-50.41. Supervised Nursing Skills Practice I (0.5)

Other: Currently enrolled in the first semester of the Associate Degree nursing program or approval from the Dean of NAH.

Pass/No Pass Only

Fall Only

Lab 27 Hrs

Designed for the registered nursing student during the first semester of study. It facilitates through supervised practice the mastery of fundamental nursing skills in a simulated patient care environment.

[CSU]

NRN-50.42. Supervised Nursing Skills Practice II (0.5)

Other: Currently enrolled in the second semester of the Associate Degree Nursing program or approval from the Dean of Nursing and Allied Health.

Pass/No Pass Only

Spring Only

Lab 27 Hrs

Designed for the registered nursing student during the second semester of study. It facilitates through supervised practice the mastery of fundamental nursing skills in a simulated patient care environment.

[CSU]

COURSE LISTINGS

NRN-50.43. Supervised Nursing Skills Practice III (0.5)

Other: Currently enrolled in the third semester of the Associate Degree Nursing program or approval from the Dean of Nursing and Health Sciences.

Pass/No Pass Only

Fall Only

Lab 27 Hrs

Designed for the registered nursing student during the third semester of study. It facilitates through supervised practice the mastery of fundamental nursing skills in a simulated patient care environment.

[CSU]

NRN-50.44. Supervised Nursing Skills Practice IV (0.5)

Other: Currently enrolled in the 4th semester of the Associate Degree Nursing Program or by approval from the Dean of Nursing and Health Sciences.

Pass/No Pass Only

Spring Only

Lab 27 Hrs

Designed for registered nursing students during the fourth semester of study. It facilitates through supervised practice the mastery of fundamental nursing skills in a simulated patient care environment.

[CSU]

NRN-56. Care of Diverse Individuals and Families with Stable conditions (8.0)

Prerequisite: NRN-46 with a grade of "C" or better. The NRN-46 prerequisite is waived for direct entry LVN to RN students who enroll in second semester.

Spring Only

Lec 72 Hrs Lab 216 Hrs

Focuses on concepts necessary for provision of safe nursing care to diverse individuals across the lifespan with stable conditions, including care for childbearing and childbearing families. Integrates multiple nursing concepts related to health, illness, and professional practice. Application of knowledge and skills occurs in a variety of settings allowing coordination across the continuum of care. The core values of comportment, competence, caring, collaboration, and curiosity are integrated into all aspects of the course.

[CSU]

NRN-57. Nursing Interventions and Scenarios (0.5)

Prerequisite: Admissions to the Associate Degree Registered Nursing Program

Spring Only

Lab 27 Hrs

Focuses on application of nursing concepts and clinical judgment associated with the performance of advanced nursing skills. Students will refine and practice psychomotor skills and select nursing interventions based on priority needs in simulated care situations. The core value of competence is reinforced.

[CSU]

NRN-58. Application of Pharmacology for Nursing Practice Across the Lifespan (0.5)

Prerequisite: Admissions to the Associate Degree Registered Nursing Program

Spring Only

Lec 9 Hrs

Builds upon and expands NRN-49 course content as pharmacological principles are integrated with health, illness and professional practices concepts across the lifespan. Reinforces the core values of competence and curiosity as essential components of safe nursing practice.

[CSU]

NRN-66. Care of Clients with Complex Physiological and Psychological Conditions (8.0)

Prerequisite: NRN-56 with a grade of "C" or better.

Fall Only

Lec 72 Hrs Lab 216 Hrs

Focuses on concepts necessary for provision of safe nursing care to diverse individuals with complex physiological and psychological conditions. Builds upon previously learned concepts related to health, illness, and professional practice as students manage the care of multiple clients and demonstrate refined clinical judgment. Application of knowledge and skills occurs in a variety of acute care, community, and mental health settings as the core values of comportment, competence, caring, collaboration, and curiosity are demonstrated.

[CSU]

NRN-70. Growth and Development Across the Lifespan for the Healthcare Professional (3)

Advisory: ENG-1A

All Terms

Lec 54 Hrs

Promotion of wellness across the life span. Critical thinking skills are used emphasizing normal physical, cognitive, ethnic, socio-cultural, sexual, and personality development extending from conception to death. Focus on how accomplishment of developmental tasks is impacted by disease. Required for entry into the Hartnell College LVN Program and for students in a variety of disciplines including early childhood education and baccalaureate-level registered nursing programs. Not open to students who have completed NVN-131 or NVN-70 with a 'C' grade or better

[CSU; UC; CSU-GE; AREA E; IGETC, AREA 4]

**NRN-76. Care of Clients with Potential or Actual
Multi-system Failure (7.0)**

Prerequisite: NRN-66 with a grade of "C" or better.

Spring Only

Lec 54 Hrs Lab 216 Hrs

Focuses on concepts necessary for provision of safe nursing care to diverse individuals with potential or actual multi-system failure. Builds upon previously learned nursing concepts related to health, illness, and professional practice with emphasis on alterations gas exchange and perfusion. Students assume the role of leader while demonstrating core values of comportsment, competence, caring, collaboration, and curiosity. Designed to prepare students to function as entry-level professional nurse generalists in acute care, transitional care, and community settings.

[CSU]

**NRN-77. Role Transition and Care Coordination
Seminar (1.0)**

Spring Only

Lec 18 Hrs

Focuses on concepts relevant to health care delivery and essential competencies for coordinating care within and across health care systems, taking into account social determinants of health, professional behaviors and attitudes, legal=ethical principles, and quality indicators. Prepares nurse-generalists to function in innovative roles as leaders, advocates, and care coordinators across the health-illness care continuum in a variety of settings.

[CSU]

NRN-99. Nurse Residency (3 - 8)

Prerequisite: NRN-44.1 with a grade of "C" or better.

Pass/No Pass Only

Fall Only

This course provides a structured first-work experience to bridge the transition from student to professional RN. A combination of classroom and acute care-clinical experience focuses on issues pertinent to the development of nursing practice skills and professional growth.

[CSU]

**NRN-110. Foundations for Success for Registered
Nursing Students (1)**

Prerequisite: Admission to the Associate Degree Registered Nursing Program

Fall Only

Lec 5.40 Hrs; Lab 38 Hrs

Introduction to professional behaviors, attitudes, and values that lead to academic and professional success in nursing. Historical trends that influenced the role of the nurse as a knowledge-worker and current educational preparation will be explored. Individual working and learning styles, communication methods, and stress reduction are key concepts. A learning environment is created to foster collaboration and curiosity.

**NRN-224. Success Strategies for Nursing:
Returning Students (1)**

Other: Approval for the Dean of Nursing and Health Sciences

Pass/No Pass Only

Fall/Spring

Lab 54 Hrs

Designed for students returning to the nursing program after a personal or academic leave OR for students transferring into Hartnell's Nursing program after partial completion of a nursing program at another college. Individualized for each student based on identified learning needs and program/semester requirements.

**NRN-225. Success Strategies for 1st Semester RN
Students (0.5)**

Other: Currently enrolled in the first semester of the Associate Degree Nursing program or approval from the Dean of Nursing and Health Sciences.

Pass/No Pass Only

Fall Only

Lab 27 Hrs

Designed for first semester registered nursing students interested in reinforcing nursing content and skills presented in first semester nursing courses with an emphasis on foundational nursing concepts, health promotion, and basic care and comfort. Individualized for each student based on identified learning needs. The values of curiosity, collaboration, and competence in nursing practice are emphasized.

**NRN-226. Success Strategies for 2nd Semester RN
Students (0.5)**

Other: Currently enrolled in the first semester of the Associate Degree Nursing program or approval from the Dean of Nursing and Health Sciences.

Pass/No Pass Only

Spring Only

Lab 27 Hrs

Designed for second semester registered nursing students interested in reinforcing nursing concepts and skills presented in second semester nursing courses with emphasis on stable and unstable conditions. Individualized for each student based on identified learning needs. The values of curiosity, collaboration, and competency in nursing practice are reinforced.

COURSE LISTINGS

NRN-227. Success Strategies for 3rd Semester RN Students (0.5)

Other: Currently enrolled in the third semester of the Associate Degree Nursing program or approval from the Dean of Nursing and Health Sciences.

Pass/No Pass Only

Fall Only

Lab 27 Hrs

Designed for third semester registered nursing students interested in reinforcing content and skills presented in third semester nursing courses with emphasis on complex physiological and psychological conditions. Individualized for each student based on identified learning needs. The values of curiosity, collaboration, and competency in nursing practice are reinforced.

NRN-228. Success Strategies for 4th Semester RN Students (0.5)

Other: Currently enrolled in the fourth semester of the Associate Degree Nursing program or approval from the Dean of Nursing and Health Sciences.

Pass/No Pass Only

Spring Only

Lab 27 Hrs

Designed for fourth-semester registered nursing students interested in reinforcing content presented in fourth-semester nursing courses with an emphasis on multi-system failure and leadership concepts. Individualized for each student based on identified learning needs. The values of curiosity, caring, collaboration, competence, and comportment in nursing practice are reinforced.

NUTRITION

NUTR-1. Nutrition (3)

Advisory: Eligibility for ENG-1A or ENG-1AX, Completion of CHM-60 (or CHM-22 or one year of high school chemistry, BIO-6 and Elementary Algebra are recommended)

Pass/No Pass Option

Lec 54 Hrs

Scientific nutrition concepts are presented, with an emphasis on nutrition needs throughout the life cycle. An in-depth look at the metabolism of the body's essential nutrients, including the relationship of medical nutrition therapy to a variety of diseases. Also addressed are food safety practices and the challenges of global nutrition. Students will learn to assess personal nutritional diet adequacy by evaluating dietary intake via a computerized dietary analysis. Required for Allied Health Science and Nursing majors. Formerly FCS-23. Not open to students who have completed FCS-23 with a grade of "C" or better.

[CSU; UC; CSU-GE, AREA E] [C-ID NUTR 110]

NUTR-51. Essentials of Nutrition (3)

Advisory: Eligibility for ENG-1A

Pass/No Pass Option

Lec 54 Hrs

Nutrition principles are presented with an emphasis on practical application. The course provides a broad overview of the relationship between diet and health, the importance of physical activity, and which foods offer benefits for disease management. Meets the nutrition requirement for Hartnell College's Vocational Nursing (VN) program; suggested for ECE majors and the general public.

[CSU]

NURSING-VOCATIONAL

NVN-70. Growth and Development Across The Lifespan (3)

Advisory: ENG-1A

All Terms

Lec 54 Hrs

Promotion of wellness across the life span. Critical thinking skills are used emphasizing normal physical, cognitive, ethnic, socio-cultural, sexual, and personality development extending from conception to death. Focus on how accomplishment of developmental tasks is impacted by disease. Required for entry into the Hartnell College LVN Program and for students in a variety of disciplines including early childhood education and baccalaureate-level registered nursing programs. Not open to students who have completed NVN-131 with a "C" grade or better.

[CSU; UC; CSU-GE, AREA E; IGETC, AREA 4]

NVN-100. Intravenous Therapy and Blood Withdrawal Techniques (2)

Prerequisite: NVN-123C with a grade of "C" or better or status as a Licensed Vocational Nurse

Fall/Summer

Lec 32 Hrs; Lab 9 Hrs

This course provides the licensed vocational nurse with the knowledge and skills to safely initiate venipuncture and blood withdrawal. Current concepts, techniques, and measures are emphasized. Course content has been approved by the California Board of Licensed Vocational Nursing for the issue of certificate to the LVN. Students will be required to purchase a kit, estimated cost \$100-\$125.

NVN-110. Foundations for Success for Vocational Nursing Students (1)

Advisory: Conditional admission to the Vocational Nursing Program.

Spring Only

Lec 5.40 Hrs; **Lab** 37.80 Hrs

Introduction to professional behaviors, attitudes, and values that lead to academic and professional success in nursing. Historical trends that influenced the role of the nurse as a knowledge-worker and current educational preparation will be explored. Individual working and learning styles, communication methods, and stress reduction are key concepts. A learning environment is created to foster collaboration and curiosity.

NVN-119. Vocational Nursing Theory I: Fundamentals (4)

Prerequisite: Admission to the Vocational Nursing Program

Spring Only

Lec 72 Hrs

Fundamental nursing concepts specific to the role of the vocational nurse.

NVN-119.1. Vocational Nursing Clinical I: Fundamentals (4)

Prerequisite: Admission into the Vocational Nursing Program.

Corequisite: NVN-119

Spring Only

Lab 216 Hrs

Application of the nursing process for the acquisition and practice of fundamental vocational nursing skills.

NVN-121. Vocational Nursing Theory II: Health Promotion and Maintenance Across the Lifespan (6.5)

Prerequisite: NVN-119.1 and NVN-70 with a grade of "C" or better OR PSY-25 and NUTR-1 or NUTR-51

Fall Only

Lec 117 Hrs

Health promotion and maintenance across the lifespan from preconception to older adulthood specific to the role of the vocational nurse.

NVN-121.1. Vocational Nursing Clinical II: Health Promotion and Maintenance Across the Lifespan (6.5)

Prerequisite: NVN-119.1 with a grade of "C" or better.

Corequisite: NVN-121

Fall Only

Lab 351 Hrs

Application of the nursing process for health promotion and maintenance across the lifespan from preconception to older adulthood specific to the role of the vocational nurse.

NVN-123. Vocational Nursing Theory III: Coordination of Care (6.5)

Prerequisite: NVN-121 with a grade of "C" or better.

Spring Only

Lec 117 Hrs

Coordination of care for multiple clients with acute, or life altering conditions, including mental health issues specific to the role of the vocational nurse. Nursing leadership and preparation for a successful career is integral to the course.

NVN-123.1. Vocational Nursing Clinical III: Coordination of Care (6.5)

Prerequisite: NVN-121.1 with a grade of "C" or better.

Corequisite: NVN-123

Spring Only

Lab 351 Hrs

Application of the nursing process for the coordination of care across the lifespan specific to the role of the vocational nurse. Utilization of leadership principles for completion of leadership project in clinical setting.

NVN-130A. Basic Pharmacology A (1)

Prerequisite: Admission into the Vocational Nursing program

Corequisite: NVN-119

Spring Only

Lec 18 Hrs

Introduction to the nursing process for the study of pharmacology for vocational nurses. Emphasis is on pharmacological principles and medication administration.

NVN-130B. Basic Pharmacology B (1)

Prerequisite: NVN-130A with a grade of "C" or better.

Corequisite: NVN-121

Fall Only

Lec 18 Hrs

This course provides practical application of the nursing process for the study of pharmacology for vocational nurses. Emphasis is on medications that enhance oxygenation (gas exchange), perfusion, and hormonal regulation, including glucose. Additionally, the course will cover pharmacodynamics and pharmacokinetics across the lifespan.

COURSE LISTINGS

NVN-130C. Basic Pharmacology C (1)

Prerequisite: NVN-130B with a grade of "C" or better.

Corequisite: NVN-123

Spring Only

Lec 18 Hrs

This course provides practical application of the nursing process for the study of pharmacology for vocational nurses. Emphasis is on the study of selected medications from various drug families/categories using interrelated nursing concepts for clients with acute and chronic conditions across the lifespan. Additionally, focus on role of the vocational nurse in addressing system-wide issues related to safe medication administration.

NVN-224. Success Strategies for Nursing: Returning Students (1)

Pass/No Pass Only

Fall/Spring

Lab 54 Hrs

Designed for students returning to the nursing program after a personal or academic leave OR for students transferring into Hartnell's Nursing program after partial completion of a nursing program at another college. Individualized for each student based on identified learning needs and program/semester requirements. Other: Approval of the Dean of Nursing and Allied Health following withdrawal or academic classroom failure in any semester of the vocational or registered nursing program.

NVN-225. Success Strategies for Vocational Nursing: Fundamentals (0.5)

Pass/No Pass Only

Prerequisite: NVN-119

Fall Only

Lab 27 Hrs

Designed for vocational nursing students interested in developing skills to promote success in nursing school. Emphasis on foundational concepts.

NVN-226. Success Strategies for Vocational Nursing: Health Promotion (0.5)

Corequisite: NVN-121

Pass/No Pass Only

Fall Only

Lab 27 Hrs

Designed for vocational nursing students interested in reinforcing content presented in the vocational nursing program. The course is individualized for each student based on identified learning needs. Emphasis is on health promotion and maintenance across the lifespan. The values of curiosity and competency in nursing practice are emphasized.

NVN-227. Success Strategies for Vocational Nursing: Care Coordination (0.5)

Corequisite: NVN-123 with a grade of "C" or better.

Pass/No Pass Only

Spring Only

Lab 27 Hrs

Designed for vocational nursing students in their last semester of vocational nursing, interested in reinforcing content presented throughout the vocational nursing program. NCLEX readiness and professional practice will be emphasized. The course is individualized for each student based on identified learning needs. The values of curiosity and competence in nursing practice are emphasized.

OCEANOGRAPHY

OCN-1. Oceanography (3)

Lec 54 Hrs

The geological, physical, chemical and biological aspects of the ocean environment. It includes the origin of the oceans, nature of the ocean basins, plate tectonics, causes and effects of currents, coastal geology, waves, tides and tidal currents, as well as the biological and environmental aspects of the oceans.

[CSU; UC; CSU-GE, AREA B1; IGETC, AREA 5]

PHILOSOPHY

PHL-2. Introduction to Philosophy (3)

Advisory: Eligibility for ENG-1A

All Terms

Lec 54 Hrs

An introduction to philosophical ideas and methods focusing on major branches of philosophy. Topics explored are major issues in epistemology, metaphysics, issues of values, ethics, political philosophy, aesthetics, and philosophy of mind.

[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3]

[C-ID PHIL 100]

PHL-5. Africana Philosophy (3)

Pass/No Pass Option

Lec 54 Hrs

This course will explore the genealogy and the cultural logic Black philosophies that have rooted and shaped Black intellectual history from the 19th century to the present. Students will learn to analyze the ideas and debates between Americanist and Pan-African/Africanist traditions, Ethiopianism, the American Negro-Academy, the Haitian Revolution, Black Nationalism, and Black Male Studies.

[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3B]

[C-ID PHIL 100]

PHL-10. Ethics (3)**Advisory:** Eligibility for ENG-1A**All Terms****Lec 54 Hrs**

Presents an in-depth analysis of major ethical theories and their application to contemporary moral, social, and personal issues. Students will learn to analyze and differentiate the concepts, principles, and operational rules of major ethical theories. Analytically comparing and contrasting these theories, students will develop and use this analytic framework to evaluate contemporary moral issues.

[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3]**[C-ID PHIL 120]****PHL-15. Critical Thinking and Logic (3)****Advisory:** Eligibility for ENG-1A**Pass/No Pass Option****All Terms****Lec 54 Hrs**

Introduces principles of valid reasoning with emphasis on deductive logic. Includes a study of formal techniques of sentential logic and the use of inductive reasoning, language, and fallacies. The concepts of induction, deduction, validity, soundness, strength, and cogency are explored in detail.

[CSU; UC; CSU-GE, AREA A3] [C-ID PHIL 110]

PHOTOGRAPHY

PHO-1. Introduction to Photography (3)**All Terms****Lec 54 Hrs**

Surveys the history of photography from its origins to the advent of the digital age in the 20th Century to contemporary usage. Examines the practice of photography as an art form and as a form of visual communication in historical, socio-political and cultural contexts from a world perspective. Introduces students to the technical knowledge, skill sets, and creative application of all photographic media. Any camera allowing adjustments to ISO, aperture (F stop), and shutter speed functions directly or with scene control are required for the course. Note: The Hartnell library has a limited number of both film and digital cameras available for checkout.

[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3]**PHO-2. Beginning Black and White Photography (3)****Prerequisite:** PHO-1 with a grade of "C" or better.**Fall/Spring****Lec 36Hrs; Lab 54 Hrs**

A course designed to teach the skills of Black and White photography through the production of prints of high technical and artistic value. It includes the study of film processing, contact printing, enlarging, composition, after-work, and mounting. A digital camera (DSLR) or high quality compact digital camera with manual controls are required for this course.

[CSU; UC]**PHO-3. Advanced Photography Lab (3)****Prerequisite:** PHO-2 with a grade of "C" or better.**Fall/Spring****Lec 36 Hrs; Lab 54 Hrs**

This course is an extension of PHO-2 with special emphasis on the study of photography as an art form and profession. Assignments are given in a wide variety of photographic topics, technologies, and methods in order to develop student skills and proficiencies in Black and White photography as well as related issues in digital media. A digital camera (DSLR) or high quality compact digital camera with manual controls are required for the course.

[CSU]**PHO-4. Portfolio Photography (3)****Prerequisite:** PHO-3 with a grade of "C" or better.**Fall/Spring****Lec 36 Hrs; Lab 54 Hrs**

Emphasizes the development of a photographic portfolio in which the student establishes near professional level skills in their choice of photographic mediums. A digital camera (DSLR) or high quality compact digital camera with manual controls are required for the course.

[CSU]

PHYSICAL EDUCATION

PEAC-32. Core Strengthening and Flexibility (1 - 1.5)**Pass/No Pass Option****Lec 13.5 Hrs; Lab 40.5 Hrs**

Designed to increase muscle flexibility and physical movement. Balance, core strengthening and muscle awareness will be emphasized through a series of exercise and routines.

[CSU; UC]**PEAC-36. Yoga (1 - 1.5)****Pass/No Pass Option****Lec 13.5 Hrs; Lab 40.5 Hrs**

Practice and philosophy of Yoga through Yoga poses. Yoga exercises linked to movement, mind, and breath to bring about a feeling of balance, relaxation, and harmony.

[CSU; UC]

COURSE LISTINGS

PEAC-37. Intermediate Baseball (1 - 1.5)

Lec 13.5 Hrs; **Lab** 40.5 Hrs

Intermediate concepts and skills developed to be a successful athlete on a collegiate baseball team. Lecture, demonstration and field participation will be required. Implementation of offensive and defensive fundamentals, positional strategies, physical fitness and rules will be emphasized.

[CSU; UC]

PEAC-38. Advanced Baseball (1 - 1.5)

Advisory: High school varsity baseball experience or previous collegiate baseball experience is highly recommended.

Lec 13.5 Hrs; **Lab** 40.5 Hrs

Instruction and practice in offensive and defensive fundamentals with emphasis on strategies and techniques of baseball.

[CSU; UC]

PEAC-39. Introduction to Pickleball (1 - 1.5)

Lec 13.5 Hrs; **Lab** 40.5 Hrs

This course will introduce beginners to the sport of pickleball. This course will emphasize the fundamental strokes, rules, terminology, and etiquette.

PEAC-40. Speed Training and Conditioning (1 - 1.5)

Pass/No Pass Option

Lec 13.5 Hrs; **Lab** 40.5 Hrs

The development of strategies and techniques to increase speed and improve agility utilizing the fitness components of cardiovascular/respiratory conditioning, muscular strength and endurance, and flexibility.

[CSU; UC]

PEAC-41. Beginning Futsal (1 - 1.5)

Lec 13.5 Hrs; **Lab** 40.5 Hrs

Provides instruction in skills and strategies of Futsal/indoor soccer for the beginning student.

[CSU; UC]

PEAC-42. Hydro-Fitness (1 - 1.5)

Lec 13.5 Hrs; **Lab** 40.5 Hrs

Cardiovascular exercise program performed in the pool. The workouts will include a warm up, a series of arm and leg exercises using "Hydro-Fit" system apparatus, and a cool down.

[CSU; UC]

PEAC-43. Strength Training (1 - 1.5)

Lec 13.5 Hrs; **Lab** 40.5 Hrs

A progressive weight training course designed to provide instruction in techniques and training of muscular strength, muscular endurance and muscle definition through the use of free weights and machines. Students may only take four of the following courses: PEAC-43, PEAC-46, PEAC-47, PEAC-49, PEAC-50 or PEAC-69. Each course is not repeatable.

[CSU; UC]

PEAC-44. Water Jogging (1 - 1.5)

Lec 13.5 Hrs; **Lab** 40.5 Hrs

A water exercise class emphasizing cardiovascular endurance, muscular development and flexibility using Hydro-Fit jogging cuffs and Aqua jogger belts.

[CSU; UC]

PEAC-46. Circuit Endurance Training (1 - 1.5)

Lec 13.5 Hrs; **Lab** 40.5 Hrs

Circuit training to develop cardiovascular efficiency, strength, endurance and flexibility. Self-monitoring of heart rate emphasized throughout the class. Students may only take four of the following courses: PEAC-43, PEAC-46, PEAC-47, PEAC-49, PEAC-50 or PEAC-69. Each course is not repeatable.

[CSU; UC]

PEAC-47. Strength Conditioning Lab (1 - 1.5)

Lec 13.5 Hrs; **Lab** 40.5 Hrs

A progressive weight training and conditioning course involving the use of weight machines, free weights and cardiovascular equipment to develop muscular strength, endurance and general fitness.

[CSU; UC]

PEAC-49. Aerobic Strength Conditioning (1 - 1.5)

Lec 13.5 Hrs; **Lab** 40.5 Hrs

Develop cardiovascular efficiency, strength, endurance, and flexibility through the use of weight machines, free weights and cardiovascular equipment. Emphasis is placed on improving overall fitness while exercising safely. Students may enroll in PEAC-43, PEAC-46, PEAC-47, PEAC-49, PEAC-50 or PEAC-69 up to four times for credit. Each course is not repeatable.

[CSU; UC]

PEAC-50. Power Lifting (1 - 1.5)

Lec 13.5 Hrs; **Lab** 40.5 Hrs

Power lifting utilizing primarily free weights. Emphasis is on lifting for strength and power by concentrating on the core power lifts and other multiple joint exercises. Course provides the opportunity for students to improve their flexibility, muscular definition and endurance.

[CSU; UC]

PEAC-51. Wellness through Walking (1 - 1.5)

Pass/No Pass Option

Lec 13.5 Hrs; **Lab** 40.5 Hrs

Fundamentals of walking are introduced for the student's enhancement in cardiovascular fitness and weight control through exercise, stretching, and progressive endurance walks. Nordic walking sticks will be introduced.

[CSU; UC]

PEAC-52. Volleyball (1 - 1.5)*Lec 13.5 Hrs; Lab 40.5 Hrs*

Develop and improve fundamental volleyball skills including passing, setting, digging, serving, spiking, and blocking. Students practice offensive and defensive strategies and utilize these skills and strategies during game play.

[CSU; UC]**PEAC-55. Soccer (1 - 1.5)***Lec 13.5 Hrs; Lab 40.5 Hrs*

Instruction in the fundamental skills of soccer including dribbling, heading, trapping, passing, and team play.

[CSU; UC]**PEAC-56. Self-Defense/Martial Arts (1 - 1.5)***Lec 13.5 Hrs; Lab 41 Hrs*

Course will examine the various methods of beginning self-defense/martial arts with an emphasis on protection from assaults and use of defensive techniques and strategies. Students will learn Katas required for belt promotion.

[CSU; UC]**PEAC-58. Beginning Tennis (1 - 1.5)***Lec 13.5 Hrs; Lab 40.5 Hrs*

Develops basic skills necessary to play tennis. Emphasis is placed on the fundamental techniques, rules, scoring, history, and tennis etiquette. Students will supply their own tennis racquet and two cans of tennis balls.

[CSU; UC]**PEAC-59. Intermediate Tennis (1 - 1.5)**

Advisory: *The student should have previous playing experience in high school or a United States Tennis Association (USTA) skill rating of 3.0 or higher according to the National Tennis Rating Program (NTSP) or completed PEAC-58, Beginning Tennis, with a grade of "C" or higher prior to enrolling in Intermediate Tennis.*

Lec 13.5 Hrs; Lab 40.5 Hrs

Develops intermediate techniques necessary to play tennis. Emphasis on intermediate techniques, tennis terminology, scoring and rules of the game. Students will supply their own tennis racquet and two cans of tennis balls.

[CSU; UC]**PEAC-61. Beginning Swimming (1 - 1.5)****Pass/No Pass Option***Lec 13.5 Hrs; Lab 40.5 Hrs*

Beginning skills and techniques introduced and practiced, allowing the student to become comfortable in the water.

[CSU; UC]**PEAC-62. Intermediate Swimming (1 - 1.5)****Pass/No Pass Option***Lec 13.5 Hrs; Lab 40.5 Hrs*

Intermediate skills and techniques introduced and practiced. Introduction to diving and the use of springboard will be covered. The students should be able to swim strokes such as the crawl, beginning back stroke, back crawl and side stroke.

[CSU; UC]**PEAC-63. Advanced Swimming (1 - 1.5)**

Advisory: *Intermediate skill level competency or completed PEAC-62, with a "C" or higher prior to enrolling in Advanced Swimming.*

Pass/No Pass Option*Lec 13.5 Hrs; Lab 40.5 Hrs*

Advanced skills and techniques introduced and practiced in both swimming and springboard diving. The students should be proficient in strokes such as the crawl, back stroke, butterfly and side stroke and also be skilled in jumping and diving into the pool from the deck, low and high boards.

[CSU; UC]**PEAC-64. Beginning Golf (1)***Lec 13.5 Hrs; Lab 40.5 Hrs*

Course provides instruction in the fundamental skills and techniques of golf including, stance, grip, basic rules, and course etiquette.

[CSU; UC]**PEAC-66. Zumba Aerobics 1 (1.5)****Pass/No Pass Option***Lec 13.5 Hrs; Lab 40.5 Hrs*

Zumba is a Latin-inspired, dance-fitness aerobics class that incorporates Latin and International music and dance movements. Zumba workouts are designed to increase cardiovascular efficiency, strength, endurance, and flexibility by incorporating nonstop rhythmic exercise to Latin and international music. Class activity includes a warm-up, aerobic activity and a cool down.

[CSU; UC]**PEAC-68. Swim Fitness (1 - 1.5)***Lec 13.5 Hrs; Lab 40.5 Hrs*

Intermediate swimming techniques practiced while improving endurance and cardiovascular fitness.

[CSU; UC]**PEAC-69. Introduction to Weight Training (1 - 1.5)****Pass/No Pass Option***Lec 13.5 Hrs; Lab 40.5 Hrs*

A progressive weight training program to increase flexibility, strength, endurance and skills. Course will begin with a health screening and baseline or functional capacity fitness assessment. Students may only take four of the following courses: PEAC-43, PEAC-46, PEAC-47, PEAC-49, PEAC-50 or PEAC-69.

[CSU; UC]

COURSE LISTINGS

PEAC-70. Basketball (1 - 1.5)

Lec 13.5 Hrs; **Lab** 40.5 Hrs

A course designed to develop a thorough understanding of the game of basketball. Individual game skills, popular systems of play and strategy, and the rules of the game will be discussed and analyzed. Course will begin with a health screening and baseline or functional capacity fitness assessment.

[CSU; UC]

PEAC-72. Intermediate Basketball (1 - 1.5)

Lec 13.5 Hrs; **Lab** 40.5 Hrs

Designed to develop fundamental skills, techniques, and the physical conditioning necessary to play intermediate basketball. Students practice offensive and defensive strategies and use these skills and strategies during game play.

[CSU; UC]

PEAC-74. Advanced Volleyball (1 - 1.5)

Advisory: Intermediate skill level competency or completed PEAC-52, with a "C" or higher prior to enrolling in Advanced Volleyball.

Lec 13.5 Hrs; **Lab** 40.5 Hrs

Designed to give experienced volleyball players an opportunity to strengthen his/her skills. Emphasis will be placed on performance in competitive situations during class time as preparation for life-long fitness.

[CSU; UC]

PEAC-76. Lifeguard Training (1 - 1.5)

Lec 13.5 Hrs; **Lab** 40.5 Hrs

This course is designed to provide students the knowledge and develop the skills to prevent, recognize and respond to emergencies in aquatic settings. This will include providing care for breathing and cardiac emergencies, injuries and sudden illnesses until a higher-level EMS service takes over. Participants who successfully complete the Lifeguard Training course will receive an American Red Cross certificate for Lifeguarding/First Aid/CPR/AED, valid for 2 years.

[CSU; UC]

PEAC-82. Intermediate Water Polo (1 - 1.5)

Prerequisite: PEAC-81 with a grade of "C" or better or previous participation in water polo at scholastic or club level.

Pass/No Pass Option

Lec 13.5 Hrs; **Lab** 40.5 Hrs

Provides instruction on skills and team strategies of water polo for the intermediate student. Intermediate builds on the skills of beginning water polo with an emphasis on familiarization with vocabulary, conditioning drills, passing, shooting, and development of individual offensive and defensive skills.

[CSU; UC]

PEAD-78. Adaptive Core Strengthening (1 - 1.5)

Lec 13.5 Hrs; **Lab** 40.5 Hrs

This course is designed for students with disabilities that desire to improve their core strength, posture and overall fitness level. This course will utilize and adapt exercise techniques such as Yoga, Pilates, Strength Training and Functional Training. This class is offered on an open entry/open exit basis. Students should complete an application in the DSPS Office for verification of eligibility for this class.

[CSU; UC]

PEAD-80. Adapted Swimming (1.5)

Pass/No Pass Option

Lec 13.5 Hrs; **Lab** 40.5 Hrs

A course designed for students with disability to acquire basic fundamental skills and functional knowledge of safety to enable the student to successfully participate in swimming. Students should complete an application in the DSPS Office for verification of eligibility for this class.

[CSU; UC]

PEAD-84. Adaptive Circuit Endurance Training (1 - 1.5)

Lec 13.5 Hrs; **Lab** 40.5 Hrs

Designed for the physically challenged students to enhance their strength and cardiovascular endurance by using progressive resistance machines to develop muscle strength, endurance flexibility, and heart health. This class is offered on an open/entry, open/exit basis. Students should complete an application in the DSP&S Office for verification of eligibility for this class.

[CSU; UC]

PEIN-17. Intercollegiate Basketball (1.5)

Lec 13.5 Hrs **Lab** 40.5 Hrs

Advanced techniques and strategies for competitive intercollegiate basketball competition. Approximately twenty-eight intercollegiate scheduled games. May be taken up to four times for credit.

[CSU; UC]

PEIN-19. Intercollegiate Football (3)

Lab 162 Hrs

Advanced techniques and strategies of competitive intercollegiate football competition. Approximately ten intercollegiate scheduled games. May be taken up to four times for credit.

[CSU; UC]

PEIN-20. Intercollegiate Soccer (3)

Lab 162 Hrs

An advanced course designed to develop techniques and strategies of intercollegiate soccer competition. Approximately twenty-five games are scheduled. May be taken up to four times for credit.

[CSU; UC]

PEIN-21. Intercollegiate Softball for Women (3)*Lab 162 Hrs*

Advanced techniques and strategies of competitive intercollegiate softball competition. Thirty-two intercollegiate games. May be taken up to four times for credit.

[CSU; UC]**PEIN-22. Intercollegiate Volleyball (3)***Lab 162 Hrs*

Advanced techniques and strategies of women's competitive intercollegiate volleyball competition. Approximately twenty-eight scheduled games. May be taken up to four times for credit.

[CSU; UC]**PEIN-23. Intercollegiate Cross Country (3)***Lab 162 Hrs*

Advanced course designed to develop techniques and strategies for intercollegiate cross-country competition. Approximately ten intercollegiate meets are scheduled. May be taken up to four times for credit.

[CSU; UC]**PEIN-24. Intercollegiate Track and Field (3)***Lab 162 Hrs*

Intercollegiate track and field using advanced skills, techniques, and strategies. Eighteen intercollegiate competitions. May be taken up to four times for credit.

[CSU; UC]**PEIN-25. Intercollegiate Sports Conditioning (1.5)***Lab 81 Hrs*

Advanced strategies for competitive intercollegiate sports competition through the development of cardiovascular endurance, flexibility and strength through the use of weights and cardiovascular equipment with emphasis on specific strategies dependent on the sports activity. May be taken up to four times for credit.

[CSU; UC]**PEIN-26. Intercollegiate Baseball (3)***Lab 162 Hrs*

Advanced techniques and strategies of competitive intercollegiate baseball competition. Approximately thirty-two intercollegiate games. May be taken up to four times.

[CSU; UC]**PEIN-27. Intercollegiate Swimming and Diving (3)***Lab 162 Hrs*

Advanced course designed to develop techniques and strategies for intercollegiate swimming and diving competition. Approximately eleven intercollegiate meets are scheduled. May be taken up to four times for credit.

[CSU; UC]**PEIN-28. Intercollegiate Beach Volleyball (3)***Lab 162 Hrs*

Advanced techniques and strategies of women's competitive intercollegiate beach volleyball competition. Approximately 15 scheduled games. May be taken up to four times for credit.

[CSU; UC]**PEIN-29. Intercollegiate Water Polo (3)**

Prerequisite: Intended for students with varsity high school experience who are preparing for competitive intercollegiate water polo.

Lab 162 Hrs

Instruction and scheduled competitions for participation in Intercollegiate Water Polo representing Hartnell College. Student-athletes must meet eligibility requirements as designated by the California Community Colleges Athletic Association (CCCAA). May be taken up to four times for credit.

PEIN-30. Preseason Sport Conditioning, Basketball (1.5)*Lec 13.5 Hrs; Lab 40.5 Hrs*

Designed for the student who wishes to compete at the intercollegiate level. Course content will emphasize methods to give basketball players an opportunity to improve fitness, strength, and flexibility to minimize injury potential to men/women interested in intercollegiate basketball in a preseason setting. May be taken up to four times for credit.

[CSU; UC]**PEIN-32. Pre-Season Sport Conditioning (1)***Lec 13.5 Hrs; Lab 14 Hrs*

Designed for the student who wishes to compete at the intercollegiate level. Course content will emphasize pre-season conditioning for one of the following sports: baseball, track, cross country, soccer, softball, swimming and diving, and volleyball. It is an intensive training program based upon improving basic skills, speed, flexibility, agility, reaction time, coordinated movement and cardiovascular endurance. Students should have previous organized athletic experience. Students will enroll in the appropriate conditioning class that corresponds to their sport participation. May be taken up to four times for credit.

[CSU; UC]**PEIN-40. Nontraditional Season, Basketball (1)***Lec 13.5 Hrs; Lab 14 Hrs*

Designed for the student who wishes to compete at the intercollegiate level and gives experienced basketball players an opportunity to improve skills, fitness levels, and tactical understanding of basketball. Emphasis will be placed on performance in competitive situations during class and participation in California Community College Athletic Association's Nontraditional Season of Basketball. Students must have a current medical physical on file to participate in nontraditional competitions. CCCAA Bylaws 3.17.1. May be taken up to four times for credit.

[CSU; UC]

COURSE LISTINGS

PEIN-41. Nontraditional Season, Soccer (1.5)

Lec 13.5 Hrs; Lab 40.5 Hrs

Designed for the student who wishes to compete at the intercollegiate level and gives experienced soccer players an opportunity to improve skills, fitness level, and tactical understanding of soccer. Emphasis will be placed on performance in competitive situations during class and participation in California Community College Athletic Association's Nontraditional Season of Soccer. Students must have a current medical physical on file to participate in nontraditional competitions. CCCAA Bylaw 3.17.1 May be taken up to four times for credit.

[CSU; UC]

PEIN-42. Nontraditional Season, Volleyball (1.5)

Lec 13.5 Hrs; Lab 40.5 Hrs

Designed for the student who wishes to compete at the intercollegiate level and gives experienced volleyball players an opportunity to improve skills, fitness levels, and the tactical understanding of volleyball. Emphasis will be placed on performance in competitive situations during class and participation in California Community College Athletic Association's Nontraditional Season of Volleyball. Students must have a current medical physical on file to participate in nontraditional competitions. CCCAA Bylaw 3.17.1. May be taken up to four times for credit.

[CSU; UC]

PEIN-43. Nontraditional Season, Baseball (1.5)

Lec 13.5 Hrs; Lab 40.5 Hrs

Designed for the student who wishes to compete at the intercollegiate level and gives experienced baseball players an opportunity to improve skills, fitness levels and tactical understanding of baseball. Emphasis will be placed on performance in competitive situations during class and participation in California Community College Athletic Association's Nontraditional Season of baseball. Students must have a current medical physical on file to participate in nontraditional competitions. CCCAA Bylaw 3.17.1. May be taken up to four times for credit.

[CSU; UC]

PEIN-44. Nontraditional Season, Softball (1.5)

Lec 13.5 Hrs; Lab 40.5 Hrs

Designed for the student who wishes to compete at the intercollegiate level and gives experienced softball players an opportunity to improve skills, fitness levels and tactical understanding of softball. Emphasis will be placed on performance in competitive situations during class and participation in California Community College Athletic Association's Nontraditional Season of softball. Students must have a current medical physical on file to participate in nontraditional competitions. CCCAA Bylaw 3.17.1. May be taken up to four times for credit.

[CSU; UC]

PEIN-45. Nontraditional Season, Track and Field (1.5)

Lec 13.5 Hrs; Lab 40.5 Hrs

Designed for the student who wishes to compete at the intercollegiate level and gives experienced track and field participants an opportunity to improve skills, fitness levels and tactical understanding of track. Emphasis will be placed on performance in competitive situations during class and participants in California Community College Athletic Association's Nontraditional Season of Track and Field. Students must have a current medical physical on file to participate in nontraditional competitions. CCCAA Bylaw, 3.17.1. May be taken four times for credit.

[CSU; UC]

PEIN-46. Nontraditional Season, Football (1.5)

Lec 13.5 Hrs; Lab 40.5 Hrs

Designed for the student who wishes to compete at the intercollegiate level and gives experienced football players an opportunity to improve skills, fitness levels and tactical understanding of football. Emphasis will be placed on performance in competitive situations during class and participation in California Community College Athletic Association's Nontraditional Season of Football. Students must have a current medical physical on file to participate in nontraditional competitions. CCCAA Bylaw 3.17.1. May be taken up to four times for credit.

[CSU; UC]

PEIN-47. Nontraditional Season, Swim and Dive (1.5)

Lec 13.5 Hrs; Lab 40.5 Hrs

Designed for the student who wishes to compete at the intercollegiate level and gives experienced swimmers and divers an opportunity to improve skills, fitness levels, and the tactical understanding of swim and dive. Emphasis will be placed on performance in competitive situations during class and participation in California Community College Athletic Association's Nontraditional Season of swim and dive. Students must have a current medical physical on file to participate in nontraditional competitions. CCCAA Bylaw 3.17.1. May be taken up to four times for credit.

[CSU; UC]

PEIN-48. Nontraditional Season, Beach Volleyball (1.5)

Lec 13.5 Hrs; Lab 40.5 Hrs

Designed for the student who wishes to compete at the intercollegiate level and gives experienced beach volleyball players an opportunity to improve skills, fitness levels, and the tactical understanding of beach volleyball. Emphasis will be placed on performance in competitive situations during class and participation in California Community College Athletic Association's Nontraditional Season of beach Volleyball. Students must have a current medical physical on file to participate in nontraditional competitions. CCCAA ByLaw 3.17.1. May be taken up to four times for credit.

[CSU; UC]

PEIN-49. Nontraditional Season, Water Polo (1.5)

Prerequisite: *Intended for students with varsity high school experience who are preparing for competitive intercollegiate water polo.*

Lec 13.5 Hrs; **Lab** 40.5 Hrs

Designed for the student who wishes to compete at the intercollegiate level and gives experienced water polo players an opportunity to improve skills, fitness levels, and the tactical understanding of the game. Emphasis will be placed on performance in competitive situations during class and participation in California Community College Athletic Association's Nontraditional Season of Water Polo. Students must have a current medical physical on file to participate in nontraditional competitions. CCCAA ByLaw 3.17.1. May be taken up to four times for credit.

PETH-1. Introduction to Kinesiology (3)

Lec 54 Hrs

Introductory course in the interdisciplinary approach to the study of human movement. Provides an overview of the importance of the sub-disciplines in Kinesiology along with career opportunities in the areas of teaching, coaching, allied health, and fitness professions.

[CSU; UC; CSU-GE, AREA E] [C-ID KIN 100]

PETH-2. Care and Prevention of Athletic Injuries (4)

Lec 54 Hrs; **Lab** 54 Hrs

This course is designed to prepare prospective coaches, athletic trainers, and physical educators in the recognition, evaluation and care of athletic injuries. Laboratory activities will be included that provide direct application of classroom content.

[CSU; UC]

PETH-3. Concepts of Fitness and Wellness (3)

Lec 54 Hrs

Basic concepts of fitness, nutrition, health promotion and disease prevention. The students will gain knowledge to make appropriate choices that contribute to a healthy lifestyle. The course will incorporate both lecture and physical activity laboratory assignments.

[CSU]

PETH-4. Mental Skills for Sports Performance (3)

Lec 54 Hrs

Students will learn techniques for developing and refining psychological skills to enhance athletic growth and performance. In addition, they will improve their coaching skills and establish a culture of providing positive instruction. Course topics will assist students to maximize their athletic skill and development as well as addressing such issues as confidence, attention, goal setting, coping with injury and injury prevention.

[CSU; UC; CSU-GE, AREA E]

PETH-5. Sport in Society (3)

Lec 54 Hrs

An overview of the historical development of sport and current roles of sport in society. Includes interaction of sport with societal values and ethics and outcomes affecting professional and collegiate sports.

[CSU; CSU-GE, AREA D; UC]

PETH-10A. Theory and Analysis of Football I (2)

Lec 36 Hrs

Beginning techniques and strategies of football as played at the intercollegiate and professional levels. Advanced skills, strategies and rules of the game are discussed and analyzed.

[CSU; UC]

PETH-10B. Theory and Analysis of Football II (2)

Lec 36 Hrs

Beginning and intermediate techniques and strategies of football as played at the intercollegiate and professional levels. Advanced skills, strategies, computer analysis, and rules of the game are discussed and analyzed.

[CSU; UC]

PHYSICS

PHY-2A. College Physics I (4)

Prerequisite: *MAT-24 with a grade of "C" or better.*

Lec 54 Hrs; **Lab** 54 Hrs

This is the first course in a two-semester sequence that satisfies the physics requirement for some majors. Core topics include: kinematics, dynamics, work and energy, momentum, rotational motion, fluids, and simple harmonic motion.

[CSU; UC; CSU-GE, AREA B1, B3; IGETC, AREA 5]

[C-ID PHYS 105] [C-ID PHYS 100S with PHY-2B]

PHY-2B. College Physics II (4)

Prerequisite: *PHY-2A with a grade of "C" or better.*

Lec 54 Hrs; **Lab** 54 Hrs

This is the second course in a two-semester sequence that satisfies the physics requirement for some majors. Core topics include; mechanical waves and sound, electrostatics, magnetism, DC circuits, optics and modern physics.

[CSU; UC; CSU-GE, AREA B1, B3; IGETC, AREA 5]

[C-ID PHYS 110] [C-ID 100S with PHY 2A]

COURSE LISTINGS

PHY-4A. General Physics I/ Mechanics (4)

Prerequisite: MAT-3A with a grade of "C" or better.

Fall/Spring

Lec 54 Hrs; Lab 54 Hrs

Core topics include vectors and scalars, translational kinematics, Newton's laws, gravitation, statics and dynamics, work and energy, momentum, rotational kinematics and dynamics, fluids, and simple harmonic motion. Part of a three-semester calculus-based physics sequence intended for students majoring in the sciences and engineering.

[CSU; UC; CSU-GE, AREA B1, B3; IGETC, AREA 5]

[C-ID PHYS 205]

PHY-4B. General Physics II/ Electricity and Magnetism (4)

Prerequisite: PHY-4A with a grade of "C" or better.

Corequisite: MAT-3B

Fall/Spring

Lec 54 Hrs; Lab 54 Hrs

Core topics include electrostatics, fields, potentials, Gauss's Law, resistivity, capacitors, DC and AC circuits, magnetism, Faraday's and Lenz's Laws, Ampere's Laws, and Maxwell's equations. Part of a three-semester calculus-based physics sequence. It is intended for students majoring in the sciences and engineering.

[CSU; UC; CSU-GE, AREA B1, B3; IGETC, AREA 5]

[C-ID PHYS 210]

PHY-4C. General Physics III/ Waves, Heat, Light, Sound and Modern Physics (4)

Prerequisite: PHY-4A with a grade of "C" or better.

Corequisite: MAT-3B

Spring Only

Lec 54 Hrs; Lab 54 Hrs

Core topics include mechanical waves, laws of thermodynamics, optics, and selected topics in modern physics. Part of a three-semester calculus-based physics sequence. It is intended for students majoring in the sciences and engineering.

[CSU; UC; CSU-GE, AREA B1, B3; IGETC, AREA 5]

[C-ID PHYS 215]

PHY-10. Introduction to Physics (4)

Prerequisite: Intermediate Algebra or equivalent or placement beyond.

Lec 54 Hrs; Lab 54 Hrs

An overview of some of the more important and interesting phenomena in physics including falling bodies, Newton's laws of motion, satellite and planetary motion, heat, light, sound, waves, atomic structure, nuclear physics, energy, electricity and magnetism. Emphasis is on developing a practical understanding of principles rather than a detailed mathematical treatment. Not open to students who are concurrently enrolled in or who have completed Physics 2A, 2B, 4A, 4B, or 4C with a grade of "C" or better.

[CSU; UC; CSU-GE, AREA B1, B3; IGETC, AREA 5]

PHY-32. Survey of Chemistry and Physics (4)

Prerequisite: Beginning Algebra or equivalent or placement beyond.

Lec 54 Hrs; Lab 54 Hrs

An investigation of basic principles of physics and chemistry including matter, physical and chemical properties, energy, motion, light, atomic structure, bonding, solutions and chemical reactions. The inter-dependence of chemistry and physics will be emphasized. This course is intended for non-science majors including elementary education.

[CSU, UC; CSU-GE, AREAS B1, B3; IGETC, AREA 5A, 5C]

[C-ID PHYS 140]

POLITICAL SCIENCE

POL-1. American Political Institutions (3)

All Terms

Lec 54 Hrs

Introduction to the U.S. Constitution, American political institutions, and California state government. Topics include basic concepts from political philosophy, constitutional law, institutions of the federal government, political parties and elections, federalism, public opinion, the media, interest groups, and civil liberties and civil rights. Contemporary issues in political science will be presented from a variety of viewpoints.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]

[C-ID POLS 110]

POL-2. Introduction to Comparative Politics (3)

Advisory: Eligibility for ENG-1A

Spring Only

Lec 54 Hrs

This course is focused on comparative studies regarding contemporary governments abroad and their role in the on-going process of political and economic globalization. The forms of government studied in this course include parliamentary democracy, federal republic, authoritarian regime, and theocracy. Studies focus on a country's critical junctures, political economy and development, governance and policy-making, and representation and participation. Contemporary issues in comparative politics will be presented from a variety of viewpoints.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]

[C-ID POLS 130]

POL-3. Introduction to International Relations (3)*Advisory: Eligibility for ENG-1A***Fall Only****Lec 54 Hrs**

Focused on the practice and theory of international relations within the framework of traditional orientations and alternative approaches to international politics. Traditional orientations and alternative approaches to international politics are utilized to analyze divergent political orientations, organizational structures, approaches to conduct, pursuing peace, and the global economy. Topics include the evolution of world politics, levels of analysis and foreign policy, nationalism, globalization and transnationalism, the nation-state, intergovernmental organizations, diplomacy, international law and human rights, and international political economy. Contemporary issues in international relations will be presented from a variety of viewpoints.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]**[C-ID POLS 140]****POL-5. Chicano Politics and the American Political System (3)***Advisory: ENG-1A and POL-1***Fall Only****Lec 54 Hrs**

A survey of U.S. and California political institutions, including the U.S. Constitution as it relates to Chicanos. Chicano organizations, political models, ideology, political participation, and leadership will be studied. The role of race, class, immigration status, sex, gender, identity and the struggle for social justice, equality and political participation will be examined. The role of the media and polling will also be examined. Not open to students who have completed ETH-5 with a grade of "C" or better.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]**POL-6. Introduction to Political Theory & Thought (3)***Spring Only***Lec 54 Hrs**

This course is an introduction to various theoretical approaches to politics and basic political problems and proposed solutions as developed over the course of 2,500 years of Western political thought. Course topics include the correlation between ideology and democracy, liberalism, conservatism, socialism, and contemporary liberation ideologies as applied to the politics of identity. Contemporary issues in political theory will be presented from a variety of viewpoints.

[CSU; UC; CSU-GE; AREA D; IGETC, AREA 4]

PSYCHOLOGY

PSY-2. General Psychology (3)*Advisory: Eligibility for ENG-1A***All Terms****Lec 54 Hrs**

Introduction to the fundamental principles and concepts of human behavior and mental processes. Topics include psychology as a science, biological bases of behavior, lifespan development, perception, conditioning and learning, memory, cognition, motivation and emotion, personality, psychological disorders, methods of therapy, and social and applied psychology. Recommended for college and university transfer students. Not open to students who have completed PSY-1A with a grade of "C" or better.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]**[C-ID PSY 110]****PSY-6. Social Psychology (3)***Advisory: PSY-2; Eligibility for ENG-1A***Fall/Spring****Lec 54 Hrs**

Survey of scientific theories and research on the nature, causes, and consequences of group and individual behavior within a social context. Topics include aggression, prejudice and stereotypes, interpersonal attraction, attitudes and attitude change, conformity, group phenomena, gender roles, cultural norms, person perception, social cognition, and altruism.

[CSU; UC; CSU-GE, AREA D; IGETC AREA 4]**[C-ID PSY 170]****PSY-9. Research Methods in Psychology (4)***Prerequisite: PSY-2 and MAT-13 with a grade of "C" or better.**Advisory: Eligibility for ENG-1A***Fall/Spring****Lec 54 Hrs Lab 54 Hrs**

Scientific methods of investigating behavior and mental processes. Students will understand and apply basic research methods in psychology, including research design, review of professional literature, data analysis, and interpretation. The ethics of research with human and animal subjects will be included. In laboratory sessions students will conduct research, analyze data and interpret results.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4] [C-ID PSY 205B]

PSY-10. Introduction to Biological Psychology (3)

Prerequisite: PSY-2 with a grade of "C" or better.

Advisory: Eligibility for ENG-1A

Fall/Spring

Lec 54 Hrs

An advanced consideration of the relationship between the brain and behavior emphasizing the structure and function of neurons and other components of the nervous system. The contributions, philosophy, and ethics of research on humans and animals will be examined. Other topics include brain-behavior relationships underlying the psychological phenomena of sensation, perception, regulatory processes, emotion, motivation, learning, memory, language, and cognition as well as disorders that arise from nervous system malfunctioning.

[CSU; UC; CSU-GE, AREA B2; IGETC, AREA 5]

[C-ID PSY 150]

PSY-12. Theories of Personality (3)

Advisory: PSY-2; Eligibility for ENG-1A

Fall Only

Lec 54 Hrs

A comparative analysis of the major theories of personality theory integrating research and assessment techniques. Theoretical perspectives will include psychoanalytic, psychodynamic, humanistic, behavioral, cognitive, trait, social learning, and cross-cultural approaches.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]

PSY-14. Child Psychology (3)

Advisory: Eligibility for ENG-1A

Fall/Spring

Lec 54 Hrs

A survey of the psychological growth from conception through adolescence. Particular emphasis is given to physical, cognitive, and emotional development as well as biological and social influences. Topics will include an analysis of classic and contemporary theories and issues within the field of child psychology.

[CSU; UC; CSU-GE, AREA D, E; IGETC, AREA 4]

PSY-15. Human Sexuality (3)

All Terms

Lec 54 Hrs

A current and comprehensive introduction to the topic of human sexuality from the psychological, biological, sociocultural, and historical perspectives. Laboratory and survey research, findings from clinical experience, and historical sources will be analyzed. Topics to be discussed include (but are not limited to) sexual anatomy, sexual beliefs, values and expression, and concerns related to human sexuality. The various methods of contraception and safer sex practices will be evaluated. Current sex norms and aspects of interpersonal and individual sexual adjustment will be explored.

[CSU; UC; CSU-GE, AREA D, E; IGETC, AREA 4]

[C-ID PSY 130]

PSY-22. Abnormal Psychology (3)

Prerequisite: PSY-2 with a grade of "C" or better.

Advisory: Eligibility for ENG-1A

Fall/Spring

Lec 54 Hrs

An introduction to the research and theories regarding the major types of psychopathology, including schizophrenia, and the anxiety, mood, dissociative, somatoform, and personality disorders. Emphasis on understanding the symptoms, causes, treatments and prevention of the disorders as viewed from the psychological, social and biological perspectives.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]

[C-ID PSY 120]

PSY-25. Developmental Psychology: Lifespan (3)

Advisory: Eligibility for ENG-1A

Fall/Spring

Lec 54 Hrs

Investigates psychological development from conception through adulthood and the end of life. Focus areas include physical, cognitive, social and personality development as well as the current theoretical and research approaches which contribute to an understanding of human development over the lifespan.

[CSU; UC; CSU-GE, AREA D, AREA E1; IGETC, AREA 4]

[C-ID PSY 180]

PSY-30. Forensic Psychology (3)

Spring Only

Lec 54 Hrs

Introduction to the fundamental principles and concepts of forensic psychology. Topics include the role of psychology in the criminal and civil courts, identifying criminal behavior, evaluating fitness for trial, the insanity defense, helping victims of crime, family violence, dealing with offenders, investigation and prosecution, evaluating civil matters including family court.

[CSU]

PSY-33. Personal and Social Adjustment (3)

Advisory: Eligibility of ENG-1A

Spring Only

Lec 54 Hrs

Designed for students interested in applications of psychology to everyday life situations. The course considers various psychological perspectives and theoretical foundations and how they are applied across the lifespan, taking into account the influence of culture, gender, ethnicity, historical context, and socio-economic status. Includes a broad understanding of how scientists, clinicians and practitioners' study and apply psychology and how psychology is related to other social sciences.

[CSU; CSU-GE, AREA D9, E] [C-ID PSY 115]

PSY-41. Psychology of Human Relations (3)**Fall Only****Lec 54 Hrs**

A psychological study of human relations. Principles of communication will be emphasized as they relate to the development and maintenance of human relationships. Other topics include relationship dynamics, intimacy, managing difficult emotions, conflict resolution and relationships over the lifespan.

[CSU; CSU-GE; AREA D, E]**PSY-42. Psychology of Women (3)****Lec 54 Hrs**

An examination of the psychological, cultural, social and biological factors influencing women's beliefs and behaviors across the life span. Topics include gender stereotypes, development of gender roles, gender comparisons, women and work, love relationships, women's physical and mental health, violence against women, and women in later adulthood. Students who take this course will acquire an understanding of what it means to be female in the U.S.

[CSU; UC; CSU-GE, AREA D, E; IGETC, AREA 4]**PSY-700. Psychology of Health and Illness (3)****Prerequisite:** Admission to the Bachelor of Science in Respiratory Care**Lec 54 Hrs**

Designed for upper division students in the Respiratory Care baccalaureate program. Analyzes the topics of health, stress, and illness. Students will explore the human experience with health, disease, and dying from the perspective of the healthcare professional as well as the patients. Theories and research, behavioral traits and characteristics, the effect of our biopsychosocial perspectives on health, wellness, and diseases will be evaluated.

RESPIRATORY CARE

RCP-50. Respiratory Care Practitioner Responsibilities (1.5)**Prerequisite:** Admission to the Respiratory Care Practitioner Program**Corequisite:** RCP-53**Fall Only****Lec 27 Hrs**

Introduces the language of healthcare as professional communication skills are developed. The history of respiratory care as a discipline, the professional organizations that support the discipline, and ethical considerations are reviewed. Evidence-based medicine, critical thinking, health care reimbursement, infection control, and patient education are emphasized.

[CSU]**RCP-51. Pharmacology and Medication Administration (3)****Prerequisite:** Admission to the Respiratory Care Practitioner Program**Corequisite:** RCP-53**Fall Only****Lec 54 Hrs**

Focuses on pharmacological principles related to respiratory care. Medications pertinent to cardiopulmonary function including therapeutic gases and inhaled medications are reviewed. Drug routes, adverse reactions, and responsibilities of administration are discussed. Specific delivery devices using oxygen and aerosol therapy are emphasized. Critical thinking strategies are introduced as patient outcomes are evaluated.

[CSU]**RCP-52. Cardiopulmonary Anatomy and Physiology (3)****Prerequisite:** Admission to the Respiratory Care Practitioner Program**Corequisite:** RCP-53**Fall Only****Lec 54Hrs**

Expands on specific concepts of normal cardiopulmonary anatomy and physiology. Cardiopulmonary anatomy and the processes of ventilation and circulation are emphasized.

[CSU]**RCP-53. Foundation Skills (1)****Prerequisite:** Admission to the Respiratory Care Practitioner Program**Corequisite:** RCP-50, RCP-51, RCP-52 and RCP-54**Fall Only****Lab 54 Hrs**

Basic respiratory care procedures are introduced and practiced in the lab and clinical settings. Hand washing, vital signs, universal precautions, oxygen, humidity and aerosol therapy, and basic bronchodilator medication delivery methods are practiced. Full respiratory assessment including auscultation, general appearance, and level of consciousness are practiced. Troubleshooting of equipment and maintenance of patient safety are emphasized.

[CSU]**RCP-54. Supervised Practice: Foundations (0.5)****Prerequisite:** Entrance into the Respiratory Care Practitioner Program**Corequisite:** RCP-53**Pass/No Pass Only****Fall Only****Lab 27 Hrs**

Application of the respiratory care process for the study of fundamental respiratory care skills required for bedside care. Emphasis is on infection control, basic physical assessment and cardiopulmonary assessment that is necessary to provide care for the hospitalized patient. The value of competence in infection control and cardiopulmonary assessment skills emphasized.**[CSU]**

RCP-60. Diagnostics Studies & Respiratory Care (3)

Prerequisite: RCP-50 with a grade of "C" or better.

Corequisite: RCP-63

Spring Only

Lec 54 Hrs

Cardiopulmonary assessment, cardiac monitoring and critical thinking skills are used to guide respiratory care. Diagnostic studies are analyzed as they relate to respiratory care. Invasive and non-invasive cardiopulmonary monitoring, polysomnography, pulmonary rehabilitation, and home care evaluation are presented.

[CSU]

RCP-61. Respiratory Therapeutics (3)

Prerequisite: RCP-51 with a grade of "C" or better.

Corequisite: RCP-63

Spring Only

Lab 36 Hrs Lec 54 Hrs

Basic ventilation and airway management strategies in various settings are described. Arterial blood gas sampling and analysis are reviewed and demonstrated with the focus on patient safety. Lung function test and diagnostic imaging are reviewed.

[CSU]

RCP-62. Cardiopulmonary Pathophysiology (2)

Prerequisite: RCP-52 with a grade of "C" or better.

Corequisite: RCP-63

Spring Only

Lec 36 Hrs

Various cardiopulmonary disorders including; infection, cancer, obstructive conditions, restrictive conditions and pulmonary vascular disease. Patient care plans for specific disease processes are discussed for use in multiple health care settings.

[CSU]

RCP-63. Beginning Clinical Experience (4)

Prerequisite: RCP-53 with a grade of "C" or better.

Corequisite: RCP-60, RCP-61, RCP-62 and RCP-64

Pass/No Pass Only

Spring Only

Lab 216 Hrs

Beginning respiratory care procedures and therapeutics are introduced in lab and clinical settings. Oxygen delivery devices, aerosol therapy, sputum mobilization techniques, suctioning and airway inflation strategies are practiced. Utilizing professional communication and critical thinking skills, the student will assess the patient's clinical manifestations, pertinent history, laboratory and diagnostic data to plan patient care.

[CSU]

RCP-64. Supervised Practice: Beginning (0.5)

Prerequisite: RCP-54 with a grade of "C" or better.

Corequisite: RCP-63

Pass/No Pass Only

Spring Only

Lab 27 Hrs

Application of the respiratory care process for the study of beginning respiratory care skills required for bedside care. Emphasis is on cardiopulmonary assessment, interpretation of lab data, obtaining an arterial blood gas (ABG) sample, oxygen delivery, and medication administration that is necessary to provide care for the hospitalized patient. The value of competence in cardiopulmonary assessment, ABG, oxygen delivery, intubation and medication administration are emphasized.

[CSU]

RCP-70. Neonatal and Pediatric Respiratory Care Responsibilities (2)

Prerequisite: RCP-60 with a grade of "C" or better.

Corequisite: RCP-73

Fall Only

Lec 36 Hrs

Assessment and care of neonatal and pediatric patients are introduced. Fetal development, maternal high-risk conditions and neonatal resuscitation are reviewed. Specific neonatal and pediatric cardiopulmonary disorders are identified. Invasive and non-invasive cardiopulmonary monitoring and diagnostic testing are discussed.

[CSU]

RCP-71. Basic Mechanical Ventilation (3)

Prerequisite: RCP-61 with a grade of "C" or better.

Corequisite: RCP-73

Fall Only

Lec 36 Hrs; Lab 54 Hrs

Mechanical ventilation is introduced as patient safety is emphasized. Indications for intubation and mechanical ventilation are discussed. Classifications of mechanical ventilators, modes of operation, and internal and external components of ventilators are introduced. Effects of positive pressure ventilation on body systems are reviewed. Patient management, mechanical ventilation and cardiopulmonary monitoring, mode selection with rationale, and trouble-shooting of mechanical ventilation are reviewed.

[CSU]

RCP-72. Neurologic & Traumatic Conditions (2)

Prerequisite: RCP-62 with a grade of "C" or better.

Corequisite: RCP-73

Fall Only

Lec 36 Hrs

Neurological effects on respiratory function are explored. The pathophysiology of motor and sensory injury to the cardiopulmonary system is reviewed. Patient assessment, respiratory interventions, pain management and Acute Respiratory Distress Syndrome (ARDS) are discussed. Emergency, acute and long-term cause and effects of pulmonary injury are evaluated. The role of the Respiratory Care Practitioner (RCP) in supporting oxygenation and ventilation in situations of neurological and traumatic injury is emphasized.

[CSU]

RCP-73. Intermediate Clinical Experience (4)

Prerequisite: RCP-63 with a grade of "C" or better.

Corequisite: RCP-74

Pass/No Pass Only

Fall Only

Lab 216 Hrs

Intermediate respiratory care practitioner skills including intubation and mechanical ventilation are practiced in lab and clinical settings. Building on previously learned skills, clinical experiences include neonatal, pediatric and critical care areas.

[CSU]

RCP-74. Supervised Practice: Intermediate (0.5)

Prerequisite: RCP-64 with a grade of "C" or better.

Corequisite: RCP-73

Pass/No Pass Only

Fall Only

Lab 27 Hrs

Application of the respiratory care process for the study of intermediate respiratory care skills required for bedside care. Emphasis is on pediatric and neonatal cardiopulmonary assessment, setting up a ventilator and ventilator monitoring that is necessary to provide care for the hospitalized patient. The value of competence in applying skills across the lifespan, and ventilator set up and monitoring is emphasized.

[CSU]

RCP-80. Advanced Respiratory Care (1.5)

Corequisite: RCP-83

Pass/No Pass Only

Spring Only

Lec 18 Hrs; Lab 27 Hrs

National credentialing exam preparation. The therapist multiple choice exam and clinical simulation exam content will be reviewed. Test taking strategies, licensure application requirements, and employment opportunities are discussed.

[CSU]

RCP-81. Advanced Mechanical Ventilation (3)

Prerequisite: RCP-71 with a grade of "C" or better.

Corequisite: RCP-83

Spring Only

Lec 54 Hrs

Advanced critical care strategies including interpretation of airway flow and waveform graphics are reviewed. Laboratory data, radiographic results, acid-base balance, and kidney function are analyzed related to ventilation status. Indications and hazards of intubation, chest drains, fiberoptic bronchoscopy, and in-hospital transport from infancy through adulthood are discussed. Advanced ventilator applications and weaning strategies are discussed, and cardiopulmonary pharmacology is reinforced. Patient and family education and support is promoted.

[CSU]

RCP-82. Clinical Reasoning Seminar (2)

Prerequisite: RCP-72 with a grade of "C" or better.

Corequisite: RCP-83

Spring Only

Lec 36 Hrs

Critical thinking strategies are utilized as students actively participate in case study discussions. Emphasis is on developing and evaluating plans of care for patients with a variety of respiratory conditions encountered in multiple health care settings.

[CSU]

RCP-83. Advanced Clinical Experience (4)

Prerequisite: RCP-73 with a grade of "C" or better.

Corequisite: RCP-84

Pass/No Pass Only

Spring Only

Lab 216 Hrs

Advanced respiratory care practitioner skills, including waveform analysis and ventilator adjustments, are practiced in the lab and clinical setting. Integration and mastery of skills learned in previous semesters is expected, ensuring competence. Communication, leadership, and management skills are demonstrated in variety of clinical settings.

[CSU]

RCP-84. Supervised Practice: Advanced (0.5)

Prerequisite: RCP-74 with a grade of "C" or better.

Corequisite: RCP-83

Pass/No Pass Only

Spring Only

Lab 27 Hrs

Fourth-semester respiratory care students reinforce content presented within the scope of the respiratory care program. The course is individualized for each student based on his/her identified learning needs. This course provides the student the opportunity to discuss theoretical concepts and practice clinical skills to increase student success within the respiratory care program.

[CSU]

RCP-110. Foundations for Success (1)

Prerequisite: Admission to the Respiratory Care Practitioner Program

Pass/No Pass Only

Fall Only

Lec 6 Hrs; Lab 38 Hrs

Introduction to professional behaviors, attitudes, and values that lead to academic and professional success as a respiratory care practitioner. Historical trends that influenced the role of the respiratory care practitioner as a knowledge-worker and current educational preparation will be explored. Test taking strategies, study skills, individual learning styles, communication, and stress reduction are explored. The learning environment is created to foster collaboration and curiosity.

RCP-225. Success Strategies for 1st Semester RCP Students (0.5)

Other: Admission to the RCP program or permission of the Director of RCP program following withdrawal from or failure in any RCP 50 series course (RCP 50, 51, 52, 53, 54).

Pass/No Pass Only

Fall/Spring

Lab 27 Hrs

Designed for first semester respiratory care students interested in reinforcing content presented in RCP 50 series courses. The course is individualized for each student based on identified learning needs.

RCP-226. Success Strategies for 2nd Semester RCP Students (0.5)

Other: Concurrent enrollment in the 2nd semester of the RCP program or approval of Director of RCP program following withdrawal or failure in RCP-60, RCP-61, RCP-62, RCP-63, or RCP-64.

Pass/No Pass Only

Fall/Spring

Lab 27 Hrs

Designed for second semester respiratory care practitioner students interested in reinforcing content presented in RCP 60 series courses. The course is individualized for each student based on identified learning needs. The value of competency-based education in respiratory practice is emphasized.

RCP-227. Success Strategies for 3rd Semester RCP Students (0.5)

Corequisite: RCP-74

Other: Permission of the Director of RCP program following withdrawal or failure in RCP 70 series courses (RCP 70, 71, 72, 73, 74).

Pass/No Pass Only

Fall/Spring

Lab 27 Hrs

Designed for respiratory care students interested in reinforcing content presented in RCP 70 series courses. The course is individualized for each student based on identified learning needs.

RCP-228. Success Strategies for 4th Semester RCP Students (0.5)

Corequisite: RCP-84

Other: Permission of the Director of RCP program following withdrawal or failure in RCP 80 series courses (RCP 80, 81, 82, 83, 84).

Pass/No Pass Only

Fall/Spring

Lab 27 Hrs

Designed for respiratory care practitioner students interested in reinforcing content presented in RCP 80 series courses. The course is individualized for each student based on identified learning needs. The value of competency-based education in respiratory practice is emphasized.

RCP-701. Healthcare Systems (3)

Prerequisite: Admission to the Bachelor of Science in Respiratory Care Program

Lec 54 Hrs

Provides an overview of the healthcare structure in the U.S. Various healthcare models will be discussed. Students will examine payment models, healthcare legislation, department structure, hospital organization, and hospital performance indicators.

RCP-702. Respiratory Care Education (3)

Prerequisite: Admission to the Bachelor of Science in Respiratory Care Program

Lec 54 Hrs

Introduces students to a path of becoming an educator in the classroom and the clinical setting. Topics include adult learning theory, student and program evaluation, learning styles, simulation, diversity in the classroom and strategies to encourage creative critical thinking.

RCP-703. Healthcare Research (3)

Prerequisite: Admission to the Bachelor of Science in Respiratory Care Program

Lec 54 Hrs

An analysis and review of quality of research design and methodology in healthcare. Students will evaluate and review scholarly and peer reviewed research, determine the quality of the research being presented, interpret the results and data collection. Students will learn to use research databases, APA formatting, and elements of a research directed review.

RCP-704. Advanced Cardiopulmonary Disease (3)

Prerequisite: Admission to the Bachelor of Science in Respiratory Care Program

Lec 54 Hrs

Advanced cardiopulmonary pathophysiology encountered in the critical care, hospital, and outpatient settings. Assessment, acute and chronic disease management, diagnostic and therapeutic procedures, evaluation of treatment, and evidence-based care will be analyzed.

RCP-705. Leadership in Respiratory Care I (3)

Prerequisite: Admission to the Bachelor of Science in Respiratory Care Program

Lec 54 Hrs

Prepares students for leadership roles in respiratory care. Topics include staff development, respiratory care department structure and services, leadership styles, staffing models, motivation, problem-solving, and communication. Students will examine respiratory departmental leadership roles, requirements, and how to measure department specific performance.

RCP-801. Leadership in Respiratory Care II (3)

Prerequisite: Admission to the Bachelor of Science in Respiratory Care Program and RCP 705 with a grade of "C" or better

Lec 54 Hrs

Builds on the principles of Leadership in Respiratory Care I. Students will be utilizing skills learned to specifically lead a Respiratory Care Department. Topics include structures of healthcare organizations, regulatory agencies, funding and billing systems, and strategies for leading a respiratory care department. Students will identify and apply strategic models to analyze problems, formulate solutions, and make sound decisions.

RCP-802. Advanced Respiratory Care (3)

Prerequisite: Admission to the Bachelor of Science in Respiratory Care Program

Lec 54 Hrs

Enhanced skills of respiratory therapists in the assessment and management of critically ill adult patients. The Respiratory Care Practice Act, along with therapist-driven protocols, advanced pharmacology, trauma, end of life, palliative care, and ethical and legal issues will be evaluated.

RCP-803. Advanced Diagnostics in Respiratory Care (3)

Prerequisite: Admission to the Bachelor of Science in Respiratory Care Program

Lec 54 Hrs

An in-depth review of advanced respiratory care services. Advanced diagnostic and therapeutic procedures will be evaluated in the treatment of respiratory diseases. Emphasis will be placed on pulmonary function techniques, interventional pulmonology, and analysis of treatment benefits.

RCP-804. Advanced Neonatal and Pediatric Respiratory Care (3)

Prerequisite: Admission to the Bachelor of Science in Respiratory Care Program

Lec 54 Hrs

Advanced concepts of care for critically ill neonatal and pediatric patients throughout the care continuum. Emphasis on neonatal and pediatric pathophysiology as well as assessment, diagnostic and therapeutic procedures, monitoring, mechanical ventilation and pharmacologic intervention.

RCP-805 Capstone Project (4)

Prerequisite: Admission to the Bachelor of Science in Respiratory Care Program and RCP 701 with a grade of "C" or better RCP 702 with a grade of "C" or better RCP 703 with a grade of "C" or better RCP 704 with a grade of "C" or better RCP 705 with a grade of "C" or better RCP 801 with a grade of "C" or better RCP 802 with a grade of "C" or better RCP 803 with a grade of "C" or better RCP 804 with a grade of "C" or better

Lec 72 Hrs

The final component to the baccalaureate degree program in respiratory care. Students will complete a real-world project under the direction of a faculty member and in collaboration with community members. The project will focus on areas of advanced respiratory care, education, leadership, research, or other special areas of interest.

SOCIAL JUSTICE

SJS-20. Introduction to Social Justice (3)

Fall/Spring

Lec 54 Hrs

Interdisciplinary study in race, class, gender, ethnicity, and marginalization in the United States. Examines social justice movements in relation to marginalized groups in the United States to provide a basis for a better understanding of the socio-economic, cultural and political conditions among key social groups.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4] [C-ID SJS 110]

SJS-21. Introduction to African American Studies (3)*Fall/Spring**Lec 54 Hrs*

This course is an overview of African American studies as a discipline, and of its relationship to social justice studies. Interdisciplinary approaches will be employed in studying and understanding the experiences of African Americans. Critical analysis of the various perspectives and contributions of African Americans in the development and growth of the United States will be central. This includes areas from politics, to economics, to education. The course is intended for students who plan to pursue a degree with emphasis in African American studies and for students interested in gaining general knowledge about the experiences of Blacks/African Americans in the context of the United States. The course provides a decolonized, noncommercial entry point into the Theatre Arts. Not open to students who have completed ETH-21, Introduction to African American Studies with a grade of "C" or better.

[CSU; UC; CSU-GE, AREA D, F; IGETC, AREA 4]**SJS-22. Introduction to Women's Studies (3)***Fall/Spring**Lec 54 Hrs*

Introduction to the theoretical frameworks and concepts of women's studies and feminist perspectives on a range of social issues affecting women of diverse backgrounds. Study of gender and its intersections with race, class, sexuality, disability, age, religion, and other systems of difference.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4] [C-ID SJS 120]

SOCIOLOGY

SOC-1. Introduction to Sociology (3)*Advisory: Eligibility for ENG-1A**All Terms**Lec 54 Hrs*

Sociology is the scientific study of the relationship between the individual and society. Sociological concepts, theoretical approaches, and methods are examined. Topics include the analysis and explanation of social structure, group dynamics, socialization, inequality, social stratification, globalization, social change, demography and urbanization. Course objectives include the ability to make sociology relevant and applicable to students' everyday lives.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]**[C-ID SOCI 110]****SOC-5. Introduction to Social Problems (3)***Advisory: Eligibility for ENG-1A; SOC-1**All Terms**Lec 54 Hrs*

This course is a sociological analysis of social problems in the United States. It analyzes how sociologists understand, identify, and address social problems. Social problems include racism, sexism, poverty, crime, immigration, health, aging, family, education, the environment to urbanization. Examination and evaluation of sociological perspectives are applied to improve student's understanding of social problems.

[CSU; UC; CSU-GE, AREA D, E; IGETC, AREA 4]**[C-ID SOCI 115]****SOC-8. Sociology of Food, Culture and Society (3)***Advisory: ENG-1A or ENG-1AX**Lec 54 Hrs*

Introduces students to the sociological examination of food, culture and society both at the macro (institutional) and micro (individual) level—examining the social relations associated with the production, distribution, preparation, and consumption of food and impact in society. Social, political, and spiritual aspects of food in ethnic and racial communities in the U.S. is explored. Topics to be examined range from colonialism and global food systems, indigenous knowledge systems, the material and cultural connections of food, food security, and hunger; inequality, ethnic and immigrant food traditions, cultural identity, societal influences on food ranging from social institutions (family, work, diet culture industry, economy, religion, government, etc.) to identities (personal and group) to social inequalities and social change. An intersectional, racial justice, decolonial, health at every size, and intuitive eating lens is used throughout this course.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]**SOC-15. Sociology of Immigration and Identity in the U.S. (3)***Advisory: SOC-1, SOC-42 and Eligibility for ENG-1A**Spring Only**Lec 54 Hrs*

An introduction to the sociological study of immigration and settlement in the United States. Particular emphasis is given to the historical, social, economic, and political factors shaping migration, immigration, and transnationalism. Topics include acculturation, incorporation, assimilation, inter-ethnic relations, identity pressures, stereotypes and discrimination, immigration policy, struggles for equality, labor force participation, unauthorized immigrants, and unaccompanied children. Special attention is given to how race, age, gender, class, and immigration status shape immigrants identities and experiences.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]

SOC-20. Sociology of Gender and Society (3)*Advisory: SOC-1; Eligibility for ENG-1A***Fall/Summer****Lec 54 Hrs**

A current and comprehensive sociological examination of masculinity and femininity as socially constructed from a macro-analysis of how institutions shape gender and micro-analysis of how individuals are socialized and "do" gender in the United States. Topics to be discussed may include socialization, gender and globalization, gender stereotypes, institutions on gendered experiences, women in leadership and social movements, gendered migration, and diaspora. An intersectional framework (gender, class, race, ethnicity, sexuality, age, disability, immigration status) is utilized in understanding gender relations. Contemporary issues in society will be presented from a variety of theoretical perspectives.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4] [C-ID SOCI 140]**SOC-30. Sociology of Latinxs in U.S. Society (3)***Advisory: SOC-1 or SOC-42 or SOC-15 and Eligibility for ENG-1A***Fall Only****Lec 54 Hrs**

Introduces students to the sociological examination of Latinx in the United States-tracing their development from its historical inception to contemporary experiences. Topics to be examined include legacy of conquest, identity and ethnic and racial labeling, media, culture and artistic expressions, gender and sexuality, racism, education, immigration, and family. Similarities and differences between Latinx are examined using an intersectional analysis of race, class, gender, sexuality, nationality, and immigration status.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]**SOC-41. Marriage and the Family (3)****Spring Only****Lec 54 Hrs**

Examines the family as a social institution with an emphasis on contemporary theory and research findings pertinent to family life. Topics include trends in family form, issues, problems, and functioning of the family in American society, as well as family organization in different ethnic, cultural, and historic settings.

[CSU; UC; CSU-GE, AREA D, E; IGETC, AREA 4]**[C-ID SOCI 130]****SOC-42. The Sociology of Minority Relations (3)***Advisory: SOC-1; ENG-1A***Fall/Spring****Lec 54 Hrs**

An examination of dominant minority group relations in the United States, with emphasis on contemporary America. The experiences of minority groups, including Latinos, African-Americans, Asian-Americans, and Native Americans, will be considered from various sociological perspectives.

[CSU; UC; CSU-GE, AREA D; IGETC, AREA 4]**[C-ID SOCI 150]**

SPANISH

SPA-1. Elementary 1 Spanish (5)**Pass/No Pass Option****All Terms****Lec 90 Hrs**

Fundamentals of Spanish with emphasis on the development of listening, speaking, reading, and writing skills, with Spanish as the primary language of instruction. Language acquisition will be enhanced by exposing students to the life, people, and cultures of the Spanish speaking world. Course designed for students with no prior background in Spanish. Not open to students who have completed SPA 1S or SPA 1X with a grade of "C" or better.

[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 6]**[C-ID SPAN 100]****SPA-1S. Elementary Spanish 1 for Spanish Speakers (5)****Pass/No Pass Option****All Terms****Lec 90 Hrs**

A parallel Spanish 1 course for Spanish speakers, conducted totally in Spanish with emphasis on grammar, reading, and writing. An oral command of the Spanish language is required. Not open to students who have completed Spanish 1 or Spanish 1X with a grade of "C" or better.

[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 6]**SPA-1X. Elementary Spanish 1 for Chicano Students (5)****Pass/No Pass Option****Fall/Spring****Lec 90 Hrs**

Continuation of Spanish 1 with further development of listening, speaking, reading, and writing skills, with Spanish as the primary language of instruction. Language acquisition will be enhanced by exposing students to the cultures of the Spanish speaking world. Not open to students who have completed Spanish 2S or Spanish 2X with a grade of C or better.

[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 6]**[C-ID SPAN 100]**

COURSE LISTINGS

SPA-2. Elementary Spanish 2 (5)

Prerequisite: SPA 1X with a grade of "C" or better or SPA 1S with a grade of "C" or better or SPA 1 with a grade of "C" or better or two years of high school Spanish or demonstration of language proficiency to level.

Pass/No Pass Option

All Terms

Lec 90 Hrs

Continuation of SPA-1 with further development of listening, speaking, reading, and writing skills, with Spanish as the primary language of instruction. Language acquisition will be enhanced by exposing students to the cultures of the Spanish speaking world. Not open to students who have completed SPA-2S or SPA-2X with a grade of "C" or better.

[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 6]

[C-ID SPAN 110]

SPA-2S. Elementary Spanish 2 for Spanish Speakers (5)

Prerequisite: SPA 1S with a grade of "C" or better or SPA 1X with a grade of "C" or better or SPA 1 with a grade of "C" or better or Demonstration of language proficiency to level or Two years of high school Spanish

Pass/No Pass Option

All Terms

Lec 90 Hrs

A parallel Spanish 2 and Spanish 2X course designed for Spanish speakers. This course is conducted totally in Spanish with emphasis on reading, writing, and grammar. Not open to students who have completed Spanish 2 or Spanish 2X with a grade of C or better.

[CSU; UC; CSU-GE; AREA C2; IGETC, AREA 6]

[C-ID SPAN 110]

SPA-2X. Elementary Spanish 2 for Chicano Students (5)

Prerequisite: SPA 1X with a grade of "C" or better or SPA 1S with a grade of "C" or better or SPA 1 with a grade of "C" or better or Demonstration of language proficiency to level or Two years of high school Spanish.

Pass/No Pass Option

Fall/Spring

Lec 90 Hrs

A parallel Spanish 2 and Spanish 2S course designed for English dominant students whose home languages include Spanish. This course will serve any heritage speaker of Spanish who has an oral command of the language. This course is conducted primarily in Spanish with emphasis on speaking, reading, writing, and grammar. Not open to students who have completed Spanish 2 or Spanish 2S with a grade of C or better.

[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 6]

[C-ID SPAN 110]

SPA-3. Intermediate Spanish 1 (5)

Prerequisite: SPA 2 with a grade of "C" or better or SPA 2S with a grade of "C" or better or SPA 2X with a grade of "C" or better or three years of high school Spanish with a grade of "C" or better or demonstration of language proficiency to level.

Pass/No Pass Option

Fall Only

Lec 90 Hrs

Course conducted totally in Spanish with further emphasis on grammar, reading, and writing, including a strong cultural and literary component. Not open to students who have completed SPA-3S with a grade of "C" or better.

[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3B, 6]

[C-ID SPAN 200]

SPA-3S. Intermediate Spanish 1 for Spanish Speakers (5)

Prerequisite: SPA 2 with a grade of "C" or better or SPA 2S with a grade of "C" or better or SPA 2X with a grade of "C" or better or three years of high school Spanish with a grade of "C" or better or demonstration of language proficiency to level.

Pass/No Pass Option

Fall/Spring

Lec 90 Hrs

A parallel SPA-3 course for Spanish speakers, conducted totally in Spanish with further emphasis on grammar, reading, and writing, including a strong cultural and literary component. Not open to students who have completed SPA-3 with a grade of "C" or better.

[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3B, 6]

[C-ID SPAN 220]

SPA-4. Intermediate Spanish (5)

Prerequisite: SPA-3 or SPA-3S, or four years of high school Spanish, or demonstration of proficiency to level. This proficiency is determined according to Hartnell College's Prerequisite Clearance and Challenge Processes.

Pass/No Pass Option

Lec 90 Hrs

Continuation of SPA-3. A course conducted totally in Spanish with further emphasis on oral proficiency, advanced grammar, reading and writing, including a strong cultural and literary component. Not open to students who have completed SPA-4S with a grade of "C" or better.

[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 6]

[C-ID SPAN 210]

SPA-4S. Intermediate Spanish 2 for Spanish Speakers (5)

Prerequisite: SPA-3S or SPA-3, or demonstration of proficiency to level. This proficiency is determined according to Hartnell College's Prerequisite Clearance and Challenge processes. All prerequisites must be completed with a grade of "C" or better.

Pass/No Pass Option

Fall/Spring

Lec 90 Hrs

A parallel SPA-4 course for Spanish speakers conducted totally in Spanish with further emphasis on advanced grammar, intensive reading and writing, including a strong cultural and literary component. Not open to students who have completed SPA-4 with a grade of "C" or better.

[CSU; UC CSU-GE, AREA C2; IGETC, AREA 3B, 6]

[C-ID SPAN 230]

THEATRE ARTS AND CINEMA

TAC-1. Introduction to Theatre (3)

Pass/No Pass Option

Fall/Spring

Lec 54 Hrs

Provides the student with a basic definition of theatre, its historical foundations, genres, and current production practices leading to an appreciation of theatre. Students will be required to attend theatre performances for education and edification. Introduction to Theatre is required of all theatre arts majors. Formerly THA-1. Not open to students who have completed THA-1 with a grade of "C" or better.

[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3A]

[C-ID THTR 111]

TAC-2. Script Analysis (3)

Fall/Spring

Lec 54 Hrs

Introduces students to the essential elements of dramatic structure as manifest in the playscript. Students will learn how to read a play for its structure, scrutinizing the playwright's methods of creating theatre through plot, character and imagery, and understanding what scripts "mean" to the professional theatre artist and theatre-goer as distinct from other forms of literature. Students will undertake an in-depth study of dramatic play structure from both an historical and an aesthetic perspective, analyzing and understanding play scripts in a variety of genres and styles intended for production. Principles, theories and techniques of play script analysis for theatrical production will be the focus of the course. Not open to students who have completed THA-2 with a grade of "C" or better.

[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3A]

[C-ID THTR 114]

TAC-3. History of the Theatre (3)

Spring Only – Odd Years

Lec 54 Hrs

The study of the history of theatre from the Origins of Theatre through the 17th Century. The history and development of theatre and drama are studied in relationship to cultural, political and social conditions of the time as they relate to current cultural, ethnic and social conditions in the United States. Plays are read for analysis of structure, plot, character and historical relevance. Formerly THA-3. Not open to students who have completed THA-3 with a grade of "C" or better.

[CSU; UC; CSU-GE, AREA C1; IGETC, AREA3A]

[C-ID THTR 113]

TAC-7. Chicano Theatre (3)

Advisory: ENG-1A

Pass/No Pass Option

Lec 54 Hrs

A cultural and historic introduction to Chicana/o/x Theatre. The course examines the rich history and ongoing developments born out of the struggles of the Farmworkers of the 1960s. Examining Chicana/o/x identity through exploration of the historical and contemporary ways of life illustrated in stage productions. The course provides a decolonized, noncommercial entry point into the Theatre Arts. Not open to students who have completed ETH 7, Chicano Theatre with a grade of "C" or better.

[CSU; UC; CSU-GE AREA C1, F; IGETC AREA 3B]

TAC-10. Acting I – Acting for Everyone (3)

Pass/No Pass Option

Lec 36 Hrs; Lab 54 Hrs

Prepares a student to apply basic acting theory to performance and develops the skills of empathy, awareness, and presentation through acting. Special attention is paid to skills for performance: memorization, stage movement, vocal production, and interpretation of text. Attendance of a live performance for the purpose of evaluation. Formerly THA-10. Not open to students who have completed THA-10 with a grade of "C" or better.

[CSU; UC] [C-ID THTR 151]

TAC-11. Acting II (3)

Prerequisite: TAC-10 with a grade of "C" or better.

Pass/No Pass Option

Fall/Spring

Lec 36 Hrs; Lab 54 Hrs

Follows Acting I and continues the exploration of theories and techniques used in preparation for the interpretation of drama through acting. The emphasis will be placed on deepening the understanding of the acting process through character analysis, monologues, and scenes. Attendance of a live performance for the purpose of evaluation.

[CSU; UC] [C-ID THTR 152]

COURSE LISTINGS

TAC-15. Acting for the Camera (3)

Pass/No Pass Option

Fall Only- Even Years

Lec 36 Hrs; Lab 54 Hrs

Introduces the theory and technique of acting for cinema and video, focusing on the differences between stage acting and acting for the camera. Scenes and commercials are enacted and played back on videotape for class critiquing. Field trips may be required. Not open to students who have completed THA-5 with a grade of "C" or better.

[CSU]

TAC-20. Introduction to Ensemble Play Production (3)

Prerequisite: Audition needed.

Pass/No Pass Option

Lec 18 Hrs; Lab 108 Hrs

An introduction, for the actor, to the production of the ensemble play in production, with attention to script analysis, design elements, rehearsal and performance techniques; culminating in participation in the ensemble itself in a fully realized theatrical production. Not open to students who have completed THA-20 with a grade of "C" or better.

[CSU; UC] [C-ID THTR 191]

TAC-21. Introduction to Modern Play Production (3)

Prerequisite: Audition needed.

Pass/No Pass Option

Lec 18 Hrs; Lab 108 Hrs

An introduction, for the actor, to the production of the modern play with attention to script analysis, design elements, rehearsal and performance techniques; culminating in participation in the performance itself in a fully realized theatrical production. Not open to students who have completed THA-21 with a grade of "C" or better.

[CSU; UC] [C-ID THTR 191]

TAC-22. Introduction to Musical Theatre Production (3)

Prerequisite: Audition needed.

Pass/No Pass Option

Lec 18 Hrs; Lab 108 Hrs

An introduction to the production of the musical play with attention to directorial concept, script analysis, design elements, and performance techniques; culminating in participation in performance of a fully realized musical theatre production. Not open to students who have completed THA-23 with a grade of "C" or better.

[CSU; UC] [C-ID THTR 191]

TAC-23. Introduction to Theatre for Social Change (3)

Pass/No Pass Option

Spring

Lec 54 Hrs

Provides students with an understanding of the broad applications of theatre in the social sphere, as harbinger of change, justice, education, and civic engagement. Drawing from longstanding traditions in theatre and the arts, the course will survey a broad swath of artistic movements across time, culminating in the study of contemporary practices - local and global.

[CSU; UC; CSU-GE, AREA C, D; IGETC, AREA 3B, 4]

TAC-24. Introduction to World Theatre Production (3)

Prerequisite: Audition needed.

Pass/No Pass Option

Lec 18 Hrs; Lab 108 Hrs

An introduction, for the actor, to the production of the world theatre play with attention to directorial concept, script analysis, design elements, rehearsal and performance techniques; culminating in participation in a fully realized theatrical production. Not open to students having completed THA-130A, THA-130B or THA-130C. Formerly THA-24. Not open to students who have completed THA-24 with grade "C" or better.

[CSU; UC] [C-ID THTR 191]

TAC-25. Introduction to Revival Play Production (3)

Prerequisite: Audition needed.

Pass/No Pass Option

Lec 18 Hrs; Lab 108 Hrs

An introduction to the production of the revival play with attention to directorial concept, script analysis, design elements, rehearsal and performance techniques, and the ensemble itself; culminating in participation in a fully realized theatrical production. Not open to students who have completed THA-25 or THA-140A with a grade of "C" or better.

[CSU; UC] [C-ID THTR 191]

TAC-26. Stage Scenic Construction (3)

Pass/No Pass Option

Lec 18 Hrs; Lab 108 Hrs

Designed to teach the basic skills, concepts, and methods of beginning and intermediate scenic construction execution for the stage, providing practical experience in the application of production responsibilities in stage scenic construction. Covers the theater plant, theater personnel, scene construction, and scene painting. Students will work on a series of projects which will culminate in finished scenery for fully realized play, musical or a series of the two. Not open to students who have completed THA-26 with a grade of "C" or better.

[CSU; UC] [C-ID THTR 192]

TAC-27. Scenic Painting, Properties, and Technical Production Techniques (3)

Pass/No Pass Option

Lec 18 Hrs; Lab 108 Hrs

Designed to teach the basic skills, concepts, and methods of beginning and intermediate scenic painting and properties execution for the stage, providing practical experience in the application of production responsibilities in scenic painting, properties and technical theatre. Covers the theater plant, theater personnel, scenic painting and properties execution, technical theatre elements, and their applications. Students will work on a series of projects which will culminate in finished scenic painting and properties and technical production execution for a fully realized production of a play, musical or a series of the two. Not open to students who have completed THA-27 with a grade of "C" or better.

[CSU; UC] [C-ID THTR 192]

TAC-28. Makeup/Hair Techniques for the Stage (3)

Pass/No Pass Option

Lec 18 Hrs; Lab 108 Hrs

Designed to teach the basic techniques for the effective application of theatrical makeup and hair at the beginning level for the stage. The student will gain a practical, working knowledge of the principles of highlighting, shadowing, and contouring the human face with makeup. Explorations into the basic techniques involved in working with crepe hair, and various three-dimensional processes shall also be undertaken as the character and/or design requires. The relationships between the makeup designer, costume designer, wardrobe mistress, and makeup/dressing crew member will be emphasized. Students will work on a series of projects which will culminate in finished make-up design for a play, musical or a series of the two. Not open to students who have completed THA-28 with a grade of "C" or better.

[CSU; UC] [C-ID THTR 192]

TAC-29. Stage Lighting and Sound (3)

Pass/No Pass Option

Lec 18 Hrs; Lab 108 Hrs

Designed to teach the basic skills, concepts, and methods of beginning and intermediate lighting, sound and rigging execution for the stage, with emphasis on equipment, control, color and their relationship to design. Students will work on a series of projects which will culminate in finished lighting, as well as sound, and/or rigging requirements for a play, musical or series of the two. The relationships between the lighting and sound designers, master electrician, and lighting and sound crew and technical director will be discussed. Not open to students who have completed THA-29 with a grade of "C" or better.

[CSU; UC] [C-ID THTR 192]

TAC-30. Fundamentals of Theatre Design (3)

Pass/No Pass Option

Spring Only- Even Years

Lec 36 Hrs; Lab 54 Hrs

Students will be offered a survey and historical overview of scenery, lighting, sound, costumes, makeup, properties, theatrical equipment and construction techniques through demonstration, research, creative application and laboratory experience. Emphasis will be on contemporary developments in design and in formal theatrical applications. Not open to students who have completed THA-30 with a grade of "C" or better.

[CSU; UC] [C-ID THTR 172]

TAC-40. Stage Costuming Practicum (3)

Pass/No Pass Option

Fall/Spring

Lec 18 Hrs; Lab 108Hrs

Skills, concepts, and methods of beginning and intermediate costume construction and execution, through costuming for a fully realized theatrical production. The course will cover the theater plant, theater personnel, costume construction, and related technical and aesthetic applications. Students will work on a series of projects which will culminate in finished costume design/s for a play, musical production or a series of the two.

TAC-34. Introduction to Stagecraft (3)

Pass/No Pass Option

Lec 18 Hrs; Lab 108 Hrs

Students will be offered a survey and historical overview of the technical aspects of theatrical production through demonstration, research, creative application and laboratory experience. The following will be key areas of focus for the course: scenic design, stage machinery, lighting, sound, costume design, and makeup. Emphasis will be placed on contemporary developments in stagecraft and in formal theatrical applications.

TAC-35. Introduction to Stage Management (3)

Pass/No Pass Option

Lec 18 Hrs; Lab 108 Hrs

Students will be introduced to the field and the inherent responsibilities of stage management. Beginning with a brief survey and historical overview of the field, the course will move from research and demonstration, to creative application and laboratory exploration. The following will be key areas of focus for the course: stage management roles, responsibilities, paperwork, procedures, and kit. Emphasis will be placed on contemporary developments in stage management and in formal theatrical applications.

COURSE LISTINGS

TAC-50. Introduction to Film: History Up to the 1960'S (3)

Pass/No Pass Option

Fall

Lec 54 Hrs

This course introduces the history and close analysis of film and early television texts from 1849-1960. The course examines the broad questions of form and content, aesthetics and meaning, and history and culture within the context of film, cinematic, and television media. Students will explore the diverse possibilities presented by the cinematic art form through an examination of a wide variety of productions, national cinemas, and film movements. Topics include modes of production, narrative and non-narrative forms, acting styles, visual design, editing, sound, genre, ideology and critical analysis. Not open to students who have completed ENG-50 with a "C" or better.

[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3]

TAC-51. Beginning TV Studio Production (3)

Pass/No Pass Option

Lec 36 Hrs; Lab 54 Hrs

This course introduces theory, terminology and operation of a multi-camera television studio and control room. Topics include studio signal flow, directing, theory and operation of camera and audio equipment, switcher operation, fundamentals of lighting, graphics, video control and video recording and real-time video production.

[CSU]

TAC-52. Introduction to Stop-Motion Animation (3)

Lec 36 Hrs; Lab 54 Hrs

Introduces students to the fundamentals of animation. Surveying the history of stop-frame theatre and cinema, the course will provide a brief overview of animation history and contemporary applications. Students will provide materials.

[CSU]

TAC-53. Playwriting and Screenwriting (3)

Pass/No Pass Option

Fall Only

Lec 54 Hrs

An introduction to narrative script writing for film, episodic television, and theatre. Emphasis on basic screenplay structure, characters, conflict, theme and technical script formatting in the development of a short screenplay or play.

[CSU; UC; CSU-GE, AREA C1]

TAC-54. Video Production Lab - Single Camera (3)

Pass/No Pass Option

Fall Only

Lec 36 Hrs; Lab 54 Hrs

Provides an introduction to single-camera video production, including the production and aesthetic theories, terminology, and operation of field equipment. Topics covered will include composition and editing techniques, camera operation, field lighting, audio recording, and basic editing. This course focuses on the planning and execution of preproduction, production, and postproduction working as a cohesive production crew. Students will provide materials.

[CSU]

TAC-55. Directing (3)

Spring Only – Even years

Lec 36 Hrs; Lab 54 Hrs

An introduction to theatrical directing. Includes the process of preparing and analyzing a script for production, casting the show, blocking and rehearsing actors, and dealing with technical and promotion needs. It also includes directing scenes and preparing a prompt book. Formerly THA-51. Not open to students who have completed THA-51 with a grade of "C" or better.

[CSU; UC]

TAC-57. Introduction to Electronic Media (3)

Pass/No Pass Option

Spring Only

Lec 54 Hrs

This course introduces the history, structure, function, economics, content and evolution of radio, television, film, the Internet, and new media, including traditional and mature formats. The social political, regulatory, ethical and occupational impact of the electronic media are also studied.

[CSU; UC]

TAC-58. Introduction to Media Writing (3)

Pass/No Pass Option

Spring Only

Lec 54 Hrs

Introduces students to writing scripts and other types of content for a variety of digital media platforms. An emphasis is placed on proper formatting, technical, conceptual, and stylistic issues related to writing fiction and non-fiction. A significant part of the course will be focused on evaluating and improving writing for the media.

[CSU; UC]

TAC-59. Beginning Audio Production (3)***Pass/No Pass Option******Fall/Spring******Lec 36 Hrs; Lab 54 Hrs***

This course serves as an introduction to the theory and practice of audio production for radio, television, film and digital recording applications. Students will learn the fundamentals of sound design and aesthetics, microphone use, and digital recording equipment. Students gain hands on experience recording, editing, mixing and mastering audio. Upon completion, students will have basic knowledge of applied audio concepts, production workflow, equipment functions, and audio editing software.

[CSU; UC]**TAC-61. Beginning Radio and Podcasting Production (3)*****Pass/No Pass******Lec 36 Hrs; Lab 54 Hrs***

Introductory course in theory and application of audio production techniques for radio and podcasting. Students will gain a basic understanding of audio equipment in both live and pre-recorded broadcasting (podcasting). This includes recording equipment, mixers, digital audio production, radio program formats, broadcast writing and announcing skills.

[CSU]**TAC-91. New Works Project: Implementation and Practice (4)*****Pass/No Pass Option******Lab 216 Hrs***

This course will guide a previously identified concept/text for a new theatrical work through additional stages of drafting, revision and preparation for presentation. Development may include adaptation of non-dramatic text into dramatic form, drafting of a play from an original idea; putting scenes from a dramatic text into workshops to determine the project's potential as a musical; improvisation to suggest new treatments, etc. Formerly THA-91B. Not open to students who have completed THA-91B with a grade of "C" or better.

[CSU; UC]**TAC-92. Children's Theatre (3)*****Pass/No Pass Option******Spring Only******Lec 54 Hrs***

This course will involve students in a theatrical production for young audiences. Participating in the production of a children's theatre performance, students will explore the visual and performing arts across genres, periods, and cultures, as well as exploring elements of design, technical theatre, performance, stage management, and basic dramatic forms for the K-12 level student target audience. Students will be introduced to the VAPA Standards for each area within the arts.

[CSU; UC] [CSU-GE, AREA C1, IGETC, AREA 3A]

WELDING

WLD-99. Occupational Cooperative Work Experience Education (1 - 8)***Fall/Spring******Pass/No Pass Option***

Designed for students employed or volunteering in a field related to their college major or career goals to assist them in the development of skills and responsibilities related to their career choice. Structured objectives are developed and agreed upon by the student, college instructor, and employer. Students are eligible to earn 1 unit for 60 hours of volunteer work or for 75 hours of paid work. A maximum of four credit hours per semester may be earned up to a total of 16 semester credit hours in the Parallel Plan. A maximum of eight credit hours may be earned during one enrollment period up to a total of 16 semester credit hours for the Alternate Plan.

[CSU]**WLD-150. Introduction to Arc Welding (3)*****Pass/No Pass Option******Fall/Spring******Lec 27 Hrs; Lab 81 Hrs***

Introductory level study and safe practice in shielded metal arc welding, gas metal arc welding, flux core arc welding and gas tungsten arc welding. Introduction to metallurgy, metal identification, destructive and non-destructive weld testing, welding symbols, and basic practices in metal repair and maintenance. A service course for other trades.

WLD-151. Introduction to GTAW/TIG Welding (3)***Pass/No Pass Option******Fall/Spring******Lec 27 Hrs; Lab 81 Hrs***

Introductory level study and safe practice in Gas Tungsten Arc (also known as TIG) Welding. Emphasis will be placed on the out of position welding of steel, aluminum and stainless-steel joints and pipe fittings. Included will be study of ferrous and non-ferrous metallurgy and common practices of metal repair and maintenance.

WLD-152. Sheet Metal Fabrication (2)***Pass/No Pass Option******Lec 18 Hrs; Lab 54 Hrs***

Introduction and basic training in sheet metal forming, fastening and pattern making skills. Students learn to develop patterns and fabricate a variety of sheet metal projects. Skills training in the safe and proper use of sheet metal related equipment. Formerly WLD-52. Not open to students who have completed WLD-52 with a grade of "C" or better.

COURSE LISTINGS

WLD-153. Welding Fabrication (3)

Prerequisite: WLD-150 with a grade of "C" or better.

Advisory: WLD-151

Pass/No Pass Option

Fall Only

Lec 27 Hrs; Lab 81 Hrs

Practical experience in metal fabrication, production welding and maintenance welding techniques. Study and practice in measurement, blueprint reading, layout techniques, material selection, weight and cost estimation. Students are assigned various fabrication projects on industrial and agricultural equipment that require the use of the oxy-fuel, plasma, GMAW and GTAW processes. Not open to students who have completed WLD-53 with a grade of "C" or better.

WLD-154. Advanced Arc Welding (3)

Prerequisite: WLD-150 with a grade of "C" or better.

Advisory: WLD-151

Pass/No Pass Option

Fall Only

Lec 27 Hrs; Lab 81 Hrs

Advanced study of theory and practice of SMAW, GTAW, GMAW, FCAW, and various cutting practices. A course designed to prepare students for qualification in welding methods used in the agriculture, construction, pipeline and pressure vessel welding industries. Emphasis on destructive and nondestructive testing.

WLD-155. Ornamental Ironwork (2)

Prerequisite: WLD-150 with a grade of "C" or better.

Advisory: WLD-151

Pass/No Pass Option

Spring Only

Lec 18 Hrs; Lab 54 Hrs

Introductory level study of the practical application of traditional and modern metal working techniques. Focus is on the history, development and present-day practices used in the fabrication of architectural ornamental ironwork. Emphasis is on applied safety and process fundamentals including mig welding, oxy-fuel and plasma cutting, metal forming and traditional hot forging practices.

WLD-156. Toolmaking (2)

Prerequisite: WLD-150 with a grade of "C" or better.

Advisory: WLD-151

Pass/No Pass Option

Lec 18 Hrs; Lab 54 Hrs

An introductory level metalworking course that focuses on the making of basic hand tools for the trades. Introduction to basic steel metallurgy, hot forging, heat treating and grinding operations performed on tooling. Emphasis is on safety in the use of metalworking equipment and understanding of process fundamentals. Not open to students who have successfully completed WLD-56.

WLD-157. Pipe Welding (3)

Prerequisite: WLD-150 with a grade of "C" or better.

Advisory: WLD-151

Pass/No Pass Option

Spring Only

Lec 27 Hrs; Lab 81 Hrs

Advanced study in SMAW and GTAW with full emphasis on pipe welding techniques. Students practice welding in the 2G, 5G and 6G positions on pipe and tubing.

WLD-158. Hard Facing and Surfacing (2)

Prerequisite: WLD-150 with a grade of "C" or better.

Pass/No Pass Option

Spring Only

Lec 18 Hrs; Lab 54 Hrs

Advanced study in arc welding methods with full emphasis on the practice of hardfacing and surfacing techniques used in the agricultural and construction industries. Students will practice applying surfacing with a variety of hardfacing electrodes using SMAW, OFW, FCAW, and spray surfacing methods.

JPA ADMINISTRATIVE OF JUSTICE

South Bay Regional Public Safety Training Consortium

As a member of the South Bay Regional Public Safety Training Consortium, Hartnell College offers courses for students who are interested in Correctional officer, Law Enforcement, Reserve Police Officer, Dispatcher, Fire Technology, Probation Officer, or Juvenile Hall Counselor careers. The Consortium is funded by member colleges to provide vocational specific training which may require special facilities, special training conditions, or is presented outside of the regular schedule of college classes.

The application and registration process are completed at the South Bay Regional Public Safety Training Consortium Center campus. Although open to the public, the majority of these courses are intended to serve those who are already employed in these fields. If you have questions about these courses, or if you would like information about a career in any of these areas, please call (408) 270-6458 or visit the South Bay webpage at www.theacademy.ca.gov

JFA and JFS courses do not follow the Hartnell College numbering pattern. All courses are degree applicable; courses followed by a [CSU] notation transfer to CSU

JAJ-1. PC 832 Laws of Arrest (1)

Prerequisite: Requires each applicant not sponsored by a local or other law enforcement agency, or not a peace officer employed by a state or local agency, department, or district, submit written certification from the Department of Justice (Penal Code section 1311.5) that he/she has no criminal history background that would disqualify him/her from owning, possessing, or having a firearm under his/her control.

Lec 4 Hrs; Lab 36 Hrs

This 40-hour course covers professional orientation, laws of arrest, search, seizure, evidence, preliminary investigations, communications, and arrest techniques. The PC 832 Arrest and Control is the minimum training standard for California peace officers as specified in Commission Regulation 1005. This training may be met by successful completion of a basic training course (e.g., Regular Basic Course, Specialized Investigators' Basic Course, and Level III Modular Format Course) or as a separate stand-alone certified course.

[CSU]

JAJ-001. Dispatch Field Training Program (2 - 24)

Lec 40 Hrs; Lab 200 Hrs

This course is designed to provide a training continuum which integrates the acquired knowledge and skill from the Dispatcher Academy with the practical application of dispatch services. The Dispatch Training Program introduces newly assigned dispatchers to the personnel, procedures, policies and purposes of the individual agency and provides training specific to the agency. Students work one-on-one with a certified Communications Training Officer during daily duties required of the dispatcher. The Field Training Programs emphasis shall be on both training and evaluation of trainees.

JAJ-11. Special Weapons & Tactics (SWAT) (3 - 5)

Prerequisite: POST Basic Certificate and Penal Code Section 13511.5 requires that each applicant for admission to a course of training certified by the Commission (including the PC 832 course) that includes the carrying and use of firearms, and who is not sponsored by a local or other law enforcement agency, or is not a peace officer employed by a state or local agency, department, or district, shall be required to submit written certification from the Department of Justice that the applicant has no criminal history background which would disqualify him or her, from owning, or possessing, or having under his or her control a firearm.

Pass/No Pass Only

Lec 20Hrs; Lab 180 Hrs

This course, which meets the training requirements of the California Commission on POST, is designed to prepare law enforcement officers for the demands of departmental special teams (e.g., SWAT, SRT, ERT, MERGE). Includes qualification courses of fire, tactical, and combat shooting.

[CSU]

JAJ-12. Canine Update (4-9)

Pass/No Pass Only

Prerequisite: POST Basic Certificate or equivalent.

This course is designed to provide students with officer safety tactics, K-9 bite work, indoor/outdoor searches, apprehension and obedience work. Utilizing a field environment, and scenarios.

JAJ-13. Firearms Update (0.25 - 1)

Pass/No Pass Only

Lab 16-48 Hrs

Provides POST required instruction to officers on tactical firearms and lethal force; consists of hands-on, practical skills firearms training for in-service officers. Emphasis is on safety, knowledge of weapons, and manipulative skills testing.

[CSU]

COURSE LISTINGS

JAJ-14. Officer Safety/Field Tactics (0.5 - 1)

Pass/No Pass Only

Lec 8 Hrs; Lab 32 Hrs

Prerequisite: POST Basic certificate or equivalent

Focuses on officer safety tactics and skills including basic field techniques of officer safety, firearms, and arrest and control techniques. Examines contemporary and safe, techniques, legal mandates and new laws relative to each topic.

[CSU]

JAJ-15. Radar Training (0.5)

Pass/No Pass Only

Lab 32 Hrs

Prerequisite: POST Basic certificate or equivalent

Proper use of RADAR (Radio Detection and Ranging) and LIDAR (Light Detection and Ranging) speed-measuring device to improve speed enforcement. Covers RADAR operations, enforcement principles of stationary and moving RADAR/LIDAR, and case law.

[CSU]

JAJ-16. Gang Training (0.5)

Advisory: Completion of basic English Writing and Reading.

Prerequisite: POST Basic Certificate or equivalent.

Pass/No Pass Only

Lab 24 Hrs

This course is directed from a regional point of view to students in the identification and investigative techniques involved in gang activity and prosecution. The material presented is consistent with other information on gang activity throughout the state. The instructors are subject matter experts who meet with others to address gang problems in the region.

JAJ-17. Accident Investigation (1)

Prerequisite: POST Basic Certificate or Equivalent Valid California Driver's License

Pass/No Pass Only

Lec 8 Hrs; Lab 32 Hrs

Designed to provide students with necessary investigative skills that will enable them to properly conduct thorough preliminary and follow-up investigations of vehicular collisions. The course is structured to augment training in vehicle accident investigation which students have already received, and to provide specialized, advanced training in more sophisticated concepts and techniques of vehicle collision investigation which are applicable to follow-up investigations.

[CSU]

JAJ-22. Law Enforcement Seminar/Conference (0.5-1)

Pass/No Pass Only

Lec 8 Hrs; Lab 32 Hrs

This 8-40-hour variable course is designed as a symposium in Law Enforcement. Topics are designed for the in-service education and training requiring annual training to maintain employment.

JAJ-24. Perishable Skills Program (0.5)

Pass/No Pass Only

Lec 8 Hrs; Lab 24 Hrs

Prerequisite: POST basic Certificate and compliance with Penal code section 13511.5.

This variable-unit 8-24-hour course is designed to meet POST requirements for the Perishable Skills Program. In-service peace officers receive training in courses such as Driver Training, Arrest and Control, Tactical Communication, and Firearms.

[CSU]

JAJ-27. Crisis Intervention Training Academy (1)

Pass/No Pass Only

Lec 8 Hrs; Lab 32 Hrs

The purpose of this curriculum is to facilitate law enforcement officers in the safe and secure assessment and transport to an appropriate designated mental health facility of an individual who is in a crisis as a result of a mental disorder and who meets the criteria established in Welfare & Institution Code #5150.

JAJ-28. Defensive Tactics Instructor (2)

Pass/No Pass Only

Lec 8 Hrs; Lab 72 Hrs

This course meets the training requirements of the Commission on Peace Officers Standards and Training (POST). Covers control techniques, weapon retention, legal issues, and training for currently employed law enforcement officials to become instructors in defensive tactics. This course may be repeated for new content, ongoing training or updating.

[CSU]

JAJ-35. Homicide Investigation (0.5 - 1)

Lec 0.47 Hrs; Lab 1.88 Hrs

Provides training in the highly specialized field of Homicide Investigation to law enforcement investigators. Topics include the legal aspects of death investigation, homicide crime scene procedures, autopsy, psychological profiling, criminal psychology, laboratory work, gunshots, asphyxia, drowning, burning, cutting, stabbing, and interviewing techniques.

[CSU]

JAJ-99. Basic Motorcycle (2)

Prerequisite: 1. Commission on Police Officer Standards & Training (POST) certified basic Law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. 2. Prior to beginning this course students must already be familiar with, and be able to demonstrate all of the skills listed below. These will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them. These minimum knowledge and skill levels are regarding: Officer Safety. Proper and safe arrest and control technique. Proper and safe ground fighting technique

Pass/No Pass Only

Provides basic skills for motorcycle traffic patrol duties. Course includes Car Stop, Safety, Cone patterns, inspection and skill review.

[CSU]

JAJ-103. Field Training Officer (1)

Prerequisite: Must complete POST Basic Course or equivalent.

Pass/No Pass Only

Lec 4Hrs; Lab 36 Hrs

This 40-hour course meets minimum California Commission on Peace Officer Standards and Training requirements for Field Training officers and follows the guidelines and standards under 832.3 of the Penal Code.

[CSU]

JAJ-107. Instructor Development (0.5 -1)**Pass/No Pass Only**

Lec 9 Hrs; Lab 31 Hrs

This POST-certified 24-40-hour variable-unit course is designed to provide instruction for POST Academy instructors in adult learning principles, including instructional planning skills and presentation and facilitation techniques.

[CSU]

JAJ-109. First Aid CPR/AED First Responder (0.5 - 1)**Pass/No Pass Only**

Lec 8 Hrs; Lab 32 Hrs

This 8-40-hour variable course provides First Responder CPR (adult, child, infant). Automated External Defibrillator (AED), and basic first-aid measure for a number of medical emergencies and conditions Public Safety Officers may encounter as a First Responder. Meets POST certification requirements. Can be adapted to a basic CPR and First Aid for civilians.

[CSU]

JAJ-110. Counselor Officer Training (0.5- 4)**Pass/No Pass Only**

Provides the training for the UCLA, Gang, Homicide, Counselors. Includes expectations, legal issues, child development, programs, youth development, safety and emergency procedures, active shooter and evacuations. The training ranges from active listening, and behavioral management to lecture and case scenarios. Training complies with POST, American Association Standards for Counselors and ADA.

JAJ-153. Traffic Collision Investigations Intermediate (2)**Pass/No Pass Only**

The proper techniques for scene assessment, vehicle assessment, physical evidence, photography, definitions and terminology, and field and practical exercises in traffic collision investigation. Prerequisite: POST Basic Certificate or Equivalent

JAJ-159. Traffic Collision Investigation Advanced (2)

Prerequisite: Basic POST Certificate or Equivalent

Advisory: JAJ-153

Pass/No Pass Only

Lec 8 Hrs; Lab 72 Hrs

Builds on concepts learned in the basic and intermediate courses. This course examines in detail the human environmental and vehicle factors of a traffic collision. Concepts taught include: a review of algebra and physics, interviewing techniques, roadway and environmental factors, advanced methods for processing collision scenes and creating scale diagrams, vehicle damage assessments, lamp analysis, occupant restraints, basic vehicle dynamics and occupant's kinematics. Determination of speed based on projectile motion, and methods of conducting time- distance studies.

JAJ-164. Crime Scene Investigation (1)

Prerequisite: POST Basic Certificate or Equivalent

Pass/No Pass Option

Lec 10 Hrs; Lab 30 Hrs

Designed for students who desire and introduction to the basic tasks and responsibilities of an Evidence Technician. Students will be provided with the basic knowledge and skills needed to identify, process, collect and preserve various types of physical evidence.

JAJ-165. Active Shooter (0.25-0.5)

Prerequisite: POST Basic Certificate or Equivalent

Pass/No Pass Option

Lec 10 Hrs; Lab 32 Hrs

This course provides students with skills on Active Shooter and Critical Incidents as well as legal update on use of force issues, county protocol and departmental policy.

COURSE LISTINGS

JAJ-166. Crime Scene & Forensic Photography (0.5)

Prerequisite: POST Basic Certificate or Equivalent.

Pass/No Pass Only

Lec 4Hrs; Lab 20Hrs

Provides the student with intensive knowledge and practical experience pertinent to crime scene and forensic photography of physical evidence, and latent prints found or developed on evidence. Equipment and procedures pertinent to crime scene and forensic photography and the detection and preservation of physical evidence will also be covered. Additional topics include: the proper selection of cameras, lenses, tripods, films, filters, specialized lighting techniques and high energy forensic lights.

JAJ-202. Law Enforcement Field Training Program (1 - 12)

Pass/No Pass Only

The Field Training Program is designed to provide a training continuum which integrates the acquired knowledge and skill from the Regular Basic Police Academy with the practical application of law enforcement services. This 80-960-hour variable course is certified by Peace Officers Standards and Training (POST). Prerequisite: POST Basic Certificate or Equivalent Penal Code Section 13511.5 requires that each applicant for admission to a basic course of training certified by the Commission (including the P.C. 832 course) that includes the carrying and use of firearms, and who is not sponsored by a local or other law enforcement agency, or is not a peace officer employed by a state or local agency, department, or district, shall be required to submit written certification from the Department of Justice that the applicant has no criminal history background which would disqualify him or her, from owning, possessing, or having under his or her control a firearm. Valid California Driver's License

JAJ-204. Annual Training for Corrections (0.5)

Pass/No Pass Only

Lab 24Hrs

This 24-hour course fulfills the California Corrections Standards Authority annual training requirements for eligible staff to remain current and to upgrade knowledge and skills. Content reflects state standards and agency education and training objectives for probation officers, adult institutions and juvenile institutions staff.

JAJ-205. Background Investigation (0.5)

Prerequisite: POST Certificate or Equivalent Valid California Driver's License

Pass/No Pass Only

Lab 35 Hrs

Designed to give students the skills necessary to become an accomplished Background Investigator, this course applies the fundamentals of background investigation, interviewing, the use of psychological screening, polygraphs, legal aspects of background investigation, and verbal/non-verbal communication. This course is certified by POST.

[CSU]

JAJ-206. Citizen Police Academy (0.5)

Pass/No Pass Only

Lec 4 Hrs; Lab 36Hrs

Enhances the relationship of the Police Department with the community by educating the citizen in various aspects of police operations. Intended for citizens who want to gain first-hand knowledge of police duties and responsibilities. The citizen becomes more aware of police services, the methodologies and strategies behind police programs and tactics, and other aspects of law enforcement

JAJ-207. Skills & Knowledge Modular Training (0.5 - 2)

Prerequisite: 7. Commission on Police Officer Standards & Training (POST) certified basic Law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction.

NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. 2. Prior to beginning this course students must already be familiar with, and be able to demonstrate all of the skills listed below. These will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them. These minimum knowledge and skill levels are regarding: Familiarity with Active Shooters, Knowledge of Vehicle Operations, and Familiarity with Pursuit, Familiarity with Defensive Tactics, Knowledge of Use of Force, and Familiarity with Firearms, Familiarity with Officer Safety, and Familiarity with Racial Profiling

Pass/No Pass Only

Lec 8 Hrs Lab 72Hrs

This 8-80-hour variable course consists of modules dealing with different aspects of public safety training. Each module is 8 hours long and is either certified through Peace Officers Standards of Training (POST) or State Board of Corrections - Correctional Standard Authority (CSA) or the Office of the State Fire Marshall. Students will choose three (3) or more modules per semester to earn from 0.5 to 2 units. Each module may be repeated for credit every 2 years due to required updating of content as prescribed by changes in laws, regulations and procedures.

JAJ-210. Basic Public Safety Dispatcher (3)**Lec 25 Hrs Lab 95Hrs**

This 120-hour Basic Course satisfies the Commission on Peace Officers Standards and Training (POST) minimum training requirements for entry level dispatchers. The course also prepares each student for the fundamental principles, procedures, techniques, and duties of a public safety dispatcher within the law enforcement agency including: Ethics and Professionalism, Criminal Justice System, Workplace Communication, Telephone Technology and Procedures, Missing Persons, Domestic Violence, Community Policing, Cultural Diversity, Law enforcement Technologies, Radio Technologies and Procedures, Critical Incidents, and an overview of many other aspects of public safety.

JAJ-211. Public Safety Dispatch- Update (1-5)**Pass/No Pass Only****Lab 250 Hrs**

This 40-200 variable course is designed to provide necessary and required continuing professional training to public safety dispatches as required by The Commission on Peace Officer Standards and Training (POST). Students will learn radio procedures, radio systems, telephone procedures, legal updates and emergency dispatching techniques.

JAJ-212. Emergency Medical Dispatch (0.5-1)**Prerequisite:** JAJ-210 with a grade of "C" or better.**Pass/No Pass Only****Lec 8 Hrs Lab 32 Hrs**

Designed to provide public safety dispatchers with the general knowledge how the emergency system operates and the services that are available. Includes medical dispatch orientation, basic telecommunications, and allocation of EMS resources, medico-legal considerations, and introduction to the Pre-Arrival Instruction Program, treatment sequence cards, pre-arrival instruction cards, interactive scenarios, multi-casualty incident/disasters, quality assurance program, and critical incident stress management.

JAJ-214. Basic Police Academy (22 - 27)

Prerequisite: POST approved pre-entry English skills and physical abilities assessment examinations provided by the Academy. Penal Code Section 13511.5 requires that each applicant for admission to a basic course of training certified by the Commission (including the P.C. 832 course) that includes the carrying and use of firearms, and who is not sponsored by a local or other law enforcement agency, or is not a peace officer employed by a state or local agency, department, or district, shall be required to submit written certification from the Department of Justice that the applicant has no criminal history background which would disqualify him or her, from owning, possessing, or having under his or her control a firearm. Medical clearance by a licensed physician and a valid driver's license.

Lec 110 Hrs; Lab 970 Hrs

This 880-1080 variable hour course satisfies all minimum required training mandates governed by the Commission on Peace Officer Standards and Training (POST) entry level Peace Officers. The course includes fundamental principles, procedures and techniques of law enforcement, including: Criminal Law, Patrol procedures, Cultural Diversity, Investigative procedures, Report Writing, Defensive Tactics, Firearms, Leadership, Ethics, Community Relations, Police Vehicles Operations, Traffic Enforcement, Accident Investigation and First Aid/CPR. This course is open to those students who meet and satisfy entry requirements including written examination, physical fitness examination, DOJ fingerprint clearance and medical clearance. This course requires significant time commitments and outside course work including uniform preparation, homework assignments and equipment maintenance.

JAJ-220. Advanced Officer Training (0.5 - 2)

Prerequisite: 1. Commission on Police Officer Standards & Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. 2. Prior to beginning this course students must already be familiar with, and be able to demonstrate all of the skills listed below. These will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them. These minimum knowledge and skill levels are regarding: Familiarity with Active Shooters, Knowledge of Vehicle Operations, and Familiarity with Pursuit, Knowledge of First Aid, and Familiarity with Defensive Tactics, Knowledge of Use of Force, and Familiarity with Firearms, Familiarity with Officer Safety, and Familiarity with Racial Profiling

Pass/No Pass Only

This course covers a series of updated training topics such as Active Shooter, Driver Awareness, First Aid, CPR, Arrest and Control Techniques, Firearms, Legal Updates, and Harassment Policies. This updated training meets the requirements of the California Commission of Peace Officer Standards and Training. This course accommodates all agencies individual training requirements. 54 hours -1 unit

COURSE LISTINGS

JAJ-222. Advanced Officer Skills (1 - 3)

Pass/No Pass Only

Prerequisite: POST Basic Police Academy certification or equivalent.

Lec 20 Hrs Lab 100 Hrs

This course provides agency discretionary training and/or required mandated training according to the Commission on Peace Officer Standards and Training (POST) and Correction Standards Authority (CSA). 40-120 hours.

JAJ-223. Narcotics Enforcement 11550 (0.5 - 1)

Pass/No Pass Only

Lec 8 Hrs; Lab 32 Hrs

Designed for law enforcement officers desiring to upgrade, refine, or develop an expertise in field recognition or identification and apprehension of individuals under the influence of narcotics and dangerous drugs. Includes identification of narcotics, narcotics users, abuses of controlled substances, use and development of informants, development of probable cause, testifying in court, organization and execution of arrests, and officer survival during drug arrests.

[CSU]

JAJ-224. Communications Training Officer (1)

Prerequisite: POST Dispatch Certificate or Equivalent

Pass/No Pass

Lec 4 Hrs; Lab 36 Hrs

This 40-hour course is designed to provide the Communications Training Officer with the skills to effectively train new dispatchers. Includes the Role of the Trainer, Elements of Instruction, Legal Aspects and Liability, Evaluation and Documentation, Critical Incident Stress, Adult Learning Theory, and practical exercises.

JAJ-225. Bicycle Patrol (0.5)

Prerequisite: Required verbiage from CCCCCO: POST Certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. Note: Approval of equivalent training is not a guarantee of equivalency for state regulatory or licensing agencies who also grant equivalency. Prior to beginning this course students must already be familiar with, and be able to demonstrate, all of the skills listed below. These will not be taught in the course, rather, they will be the starting point for advanced officer training that builds upon them. These minimum knowledge and skill levels are regarding: Familiarity with officer safety and survival; Familiarity with the tactical considerations vehicle pullovers; Knowledge of lifetime fitness; Familiarity with the California Vehicle Code; Familiarity with patrol techniques and tactical considerations; Knowledge of the elements of a lawful arrest; Familiarity with arrest and control techniques; Familiarity with the use of reasonable force; Knowledge of the usage and effects of OC spray; Familiarity with impact weapons techniques. Other: Students should have access to a bicycle.

Lec 6 Hrs Lab 18 Hrs

This course is designed to give students basic knowledge of the use of the bicycle in police patrol and improve their bicycle riding skills. Covers physical fitness, subject/suspect contact, off-road bicycle-handling skills, maintenance, and the history of the bicycle.

JAJ-230. DUI-Field Sobriety Testing (0.5)

Prerequisites: JAJ-214 with a grade of "C" better.

Pass/No Pass Only

Lec 4 Hrs Lab 20 Hrs

Provides peace officers with the knowledge, skills, and tools to effectively increase the deterrence of Driving under the Influence (DUI) violations, resulting in a reduction of the number of collisions, deaths, and injuries caused by impaired drivers.

JAJ-231. Search Warrant Investigations (0.5)

Prerequisites: Commission on POST certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction.

Pass/No Pass Only

Lec 4 Hrs Lab 20 Hrs

This course will cover search warrant law and procedure; knock notice, affidavit preparation, problems of search warrant preparation, and the actual preparation of a search warrant by each participant, knock and talk. In addition, the course will provide the knowledge, skills and tactics necessary to properly serve and execute a search warrant effectively and safely. The student will develop a sound operational plan for the execution of a search warrant. This is a pass/no pass course.

JPA FIRE SCIENCE

JFS-5. Fire Investigation 1A- Fire Cause & Origin**Determination (1)**

Prerequisite: 1. State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. *NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency.* 2. Prior to beginning this course students must already be familiar with, and be able to demonstrate all of the skills listed below. These will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them. These minimum knowledge and skill levels are regarding: Familiarity with penal codes, Familiarity with health codes, Familiarity with structural fires, Familiarity with vehicular fires, and Familiarity with wild/and fires.

Lec 8 Hrs; Lab 32Hrs

This 40-hour course provides an introduction and basic overview of fire scene investigation and investigative tools required to collect, document, and preserve evidence. The focus of this course will be on providing information about fire scene indicators and determining the fire's origin.

[CSU]

JFS-6B. Fire Apparatus Driver/Operator 1B- Pump Operations (1)

Lec 4 Hrs; Lab 36 Hrs

Provides students with information, theory, methods, and techniques for operating fire service pumps. Includes types of pumps, engine and pump gauges, maintenance, unsafe pumping conditions, pressure relief devices, cooling systems, water supplies, drafting, field hydraulics, and pumping operations.

[CSU]

JFS-10. Structural Collapse I (1)

Prerequisites: Fire Fighter Certification

Lec 8 Hrs; Lab 32Hrs

This 40-hour course is designed for all emergency personnel. Includes team organization, rescue and environmental considerations, use of ropes, knots, rigging and pulley systems, descending, repelling, and belaying tools and techniques, subsurface rescue techniques, use of cribbing, wedges, cutting/prying and hydraulic tools, use of fire service ladders in specialized rescue situation, and day and night simulated rescue exercises.

JFS-14. Fire CDF Academy (2)

Lec 20 Hrs; Lab 60 Hrs

This course provides a basic firefighter course oriented toward the equipment utilized on CDF engines. Fundamentals of wildland fire control, pumping skills, incident command and techniques of controlling other emergency incidents are covered with a strong safety perspective. The course is structured with a maximum emphasis on demonstration, student application and performance examinations. [CSU]

JFS-15. CDF Fire Academy Seasonal Refresher (0.5- 2)

Prerequisite: JFS-74 with a grade of "C" or better.

Lec 9 Hrs; Lab 77 Hrs

Refresher course for the Basic CDF Firefighter Academy. Returning fire fighters must pass the returning firefighter written examination before working on an emergency incident. Intended to give the Firefighter 1 a basic knowledge which is needed prior to emergency response. Students are required to meet the minimum standard as noted in the behavioral objective for each subject/topic. Candidates for qualification under this course must meet the basic requirements for employment as a CDF Firefighter 1.

[CSU]

JFS-18. Heli tack Academy (1)

Lec 8 Hrs; Lab 32 Hrs

This 40-hour course is designed for the pilots/students of the California Department of Forestry (CDF) Air Program. Students will demonstrate Heli tack specific tactics and competently perform all operational functions including crew, bucket and tank deployment, medical evacuation and the use of hand signals.

[CSU]

JFS-30. Paramedic Core (11 - 14)

Lec 726 Hrs; Lab 374Hrs

Designed to guide students to successful completion of the National Registry EMT-Paramedic exam; meets the training requirements mandated by the State of California, California Code of Regulations Title 22. The didactic instruction represents the delivery of primarily cognitive material. This is the first part of a three-part program. Students must successfully complete the didactic portion of training prior to progressing to Clinical training. (440-560 hrs.).

[CSU]

JFS-41. Incident Command for High Rise Firefighting Operations (0.5)

Lec 4 Hrs; Lab 72 Hrs

Designed to assist emergency response officers in organizing high-rise incidents by organizing resources, developing strategies, and managing tactical operations and interagency coordination to protect life and minimize damage at high-rise incidents.

[CSU]

JFS-150. Emergency Medical Technician (6)

Lec 60 Hrs; Lab 729 Hrs

This course is designed to prepare personnel to render pre-hospital basic life support services, including cardiopulmonary resuscitation, with emphasis on field application, practices, and techniques vital to the interaction of EMT-1 personnel with all levels of emergency medical personnel. This course is a variable course so we may accommodate multiple agency requirements for course hours. May be repeated three times for credit.

[CSU]

JFS-151. Emergency Medical Technician-Refresher (0.5 - 1)

Prerequisite: JFS-750 with a grade of "C" or better grade.

Pass/No Pass Only

Lec 8 Hrs; Lab 32Hrs

This 24-40-hour EMT-Basic Refresher curriculum is competency based. Divided into six modules that follow the National Standard Curricula. EMTs who successfully complete this course must demonstrate competency over the knowledge and skills outlined in this refresher education program.

[CSU]

COURSE LISTINGS

JFS-40. California ROSS Dispatcher (0.5 - 1)

Advisory: *Students must be qualified as (Fire)*

Support Dispatchers.

Pass/No Pass Only

Lec 4Hrs; Lab 36Hrs

This 24-40 hour-variable interactive course is designed to instruct Support Dispatchers students on the Dispatch portion of the Resource Ordering and Status System (ROSS). Divided into two sections, the main portion of this class is intended for all students. The second portion of this course contains advanced topics that focus on pre-planning and non-emergency response actions

JFS-161.I-300 Intermediate Incident Command System (0.5)

Pass/No Pass Only

Lab 27Hrs

A 27-hour class in the Incident Command System designed for Fire Officers who have a working knowledge of ICS. Consists of five modules developed by the National Wildfire Coordinating Group to meet the needs of command officers managing complex emergency incidents. Expands upon Basic ICS, but does not repeat any information. Provides in dept. description and details of ICS, covers management of resources, describes the duties of all positions including the Air Operations organization, and provides examples of how the essential principles are used in incident event planning. This class may be repeated 3 times for credit. This is a pass/ no pass course.

JFS-162. I-400 Advanced ICS (0.5)

Prerequisite: *California State Marshal certified Fire Fighter 1 Academy or equivalent as determined by the Dean of Academy Instruction. Note: Approval of equivalent training is not a guarantee state regulatory or licensing agencies with also grant equivalency. Prior to beginning this course students must already be familiar with, and be able to demonstrate all of the skills listed below. These will not be taught in the course, rather, they will be the starting point for advanced fire fighter training that builds upon them. These minimum knowledge and skill levels are regarding: Familiarity with the Incident Command System, Knowledge of Fire Service Organization, and Familiarity with Fire Fighter verbal communication.*

Pass/No Pass Only

Lec 8 Hrs; Lab 76 Hrs

This Incident Command System course is designed for Chief Officers. Consists of four modules developed by the National Wildfire Coordinating Group to meet the needs of command officers managing complex emergency incidents. Advanced ICS expands upon much of the material covered in the 1-300 class. Emphasizes large-scale development; roles and relationships of primary staff, the planning, operational, logistical and fiscal considerations related to large and complex incident and event management. Describes the application of Area Command and the importance of inter-agency coordination on complex incidents and events.

[CSU]

JFS-201. Auto Extrication (0.5)

Pass/No Pass Only

Lec 4Hrs; Lab 12Hrs

Familiarization and knowledge of automobile construction technology and the equipment used at auto accidents to free trapped patients are essential factors in the safe performance of basic firefighter duties. It is the responsibility of the firefighter to operate tools and equipment in the most efficient and safe manner possible on the emergency scene.

JFS-202. Hazardous Materials 1A Basic Chemistry of Hazardous Materials (1)

Pass/No Pass Only

Lec 8 Hrs; Lab 32 Hrs

Designed to provide students with a basic foundation in chemistry and physics as they relate to hazardous materials incidents. Topics include an overview of chemical and physical properties, chemical structures and formulas, covalent and ionic bonding, different types of chemical compounds, DOT hazard classes, and the combustion process as it relates to hazardous materials.

JFS-203. Hazardous Materials 1B – Applied Chemistry Field ID of Chemicals (1)

Prerequisite: *JFS-202 with a grade of "C" or better*

Lec 8 Hrs; Lab 32 Hrs

Designed for hazardous materials emergency responders. Emphasizes application of topics learned in Hazardous Materials 1A. Includes the use of field monitoring and detection devices, sample collection of equipment, and field identification procedures for verifying, identifying, and classifying unknown chemicals.

JFS-204. Hazardous Materials 1C - Incident Consideration (1)

Prerequisite: *JFS-203 with a grade of "C" or better.*

Lec 8 Hrs; Lab 32 Hrs

Designed for hazardous materials emergency responders. Provides an introduction to the Haz Mat Incident Command System, concepts associated with haz mat response activities, and an in-depth study of incident-specific considerations influencing haz mat emergencies. Introduction to site planning, contingency planning, protective action options, and meteorological considerations.

JFS-205. Hazardous Materials 1D - Tactical Field Operation (1)

Prerequisite: *JFS-204 with a grade of "C" or better.*

Lec 8 Hrs; Lab 32 Hrs

Designed for hazardous materials emergency responders. Provides "hands-on" training in haz mat confinement and control operations, including diking dams, absorbent materials, methods and procedures of plugging, patching, sampling, and over packing. Use of chemical protective equipment and decontamination methods and procedures. Information on other tactical considerations, such as haz mat triage, sabotage, preservation of evidence, and EMS considerations is also provided.

JFS-206. Hazardous Materials 1F- Special Mitigation Techniques (1)

Prerequisite: JFS-205 with a grade of "C" or better.

Lec 8 Hrs; Lab 32 Hrs

Intensive "hands-on" introduction to specialized mitigation techniques employed by the Hazardous Materials Specialist. Instruction includes plugging, patching, and repairing railroad cars, intermodel tanks, and highway cargo tank cars, advanced chemical field identification testing procedures, and fixed facility repair considerations.

JFS-207. Hazardous Materials 1G -Advanced Field Operations (1)

Prerequisite: JFS-206: Hazardous Materials 1F - Special Mitigation Techniques with a grade of "C" or better.

Lec 8 Hrs; Lab 32 Hrs

Culmination of Modules 1A-1F in an environment of "hands-on" full-scale exercises. Includes evaluation of performance as a member of a haz mat team in a series of simulated haz mat incidents.

JFS-210. First Aid/CPR Instructor (1)

Pass/No Pass Only

Lec 8 Hrs; Lab 32 Hrs

This course prepares students to present instruction and certify physical skills in accordance with Title 22, California Code of Regulations. At the conclusion of the course, students will be prepared to develop a POST-certified First Aid/CPR/AED course compliant with Title 22 regulations established April 1, 2015 and present the course.

JFS-211. Haz Mat-Awareness/Operational (0.5)

Lec 8 Hrs; Lab 16 Hrs

Designed for fire department respondents to releases or potential releases of hazardous materials as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release. Provides defensive tactics to contain the release from a safe distance, keep it from spreading, and prevent exposures without trying to stop the release. Meets and exceeds the requirements of CFR 29 1910.120 and CCR Title 8.

JFS-212. Hazardous Materials-Incident Commander Training (0.5)

Lec 1 Hrs; Lab 23Hrs

Designed to provide the Incident Commander with the skills and competency necessary to mitigate an emergency incident, initiate action, and ensure the restoration of normal services with a comprehensive resource-management approach.

JFS-214. Wildland Fire Chain Saws (0.5)

Prerequisite: Firefighter I Academy certificate or equivalent.

Pass/No Pass Only

This course provides introductory level training for firefighters on the use of chainsaws in wild land fire management, tactical fireline application.

JFS-216. Fire Continued Professional Training (3)

Prerequisite: Fire Fighter 1 Academy or equivalent

Pass/No Pass Only

This course is designed to update, improve, and assess the professional skills required by municipal and wildland firefighters. Topics covered include structure firefighting, emergency medical skills, first responder operations, firefighter rescue and survival techniques, and required updates on sexual harassment prevention and OSHA mandates. All hours are TBA and focus on achieving the stated student learning outcomes to meet the mandated training requirements put forth by Cal OSHA and the California State Fire Marshal's Office, State Board of Fire Services.

JFS-218. Paramedic-Internship (12 - 18)

Prerequisite: 1. Certified basic EMT certificate or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. 2. Prior to beginning this course students must already be familiar with, and be able to demonstrate all of the skills listed below. These will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them. These minimum knowledge and skill levels are regarding: Familiarity with anatomy, Familiarity with scene size-ups, Knowledge of patient care, Familiarity with trauma patients, Familiarity with documentation techniques, Familiarity with interpersonal communications, Familiarity with the administration of medication, Familiarity with respiratory emergencies, Familiarity with cardiac emergencies, and Knowledge of patient transfer. JFS 30: Paramedic Core with a grade of "C" or better JFS 219: Paramedic-Clinical with a grade of "C" or better.

Pass/No Pass Only

Application of paramedic knowledge and skills in the clinical setting as an intern responding on a 911 ambulance to ill and injured patients while being instructed and evaluated by a field preceptor. The student will have the task of initiating, providing and directing entire emergency patient care while under the supervision of a preceptor. This ambulance field internship is required for certification as an EMT-Paramedic in California.

COURSE LISTINGS

JFS-219. Paramedic-Clinical (4-7)

Pass/No Pass Only

Lab 398 Hrs

Application of skills that demonstrate principles and concepts of anatomy, physiology, pathophysiology, clinical symptoms and diagnosis as they pertain to pre-hospital emergency medical care of the sick and injured. The students will rotate through specialty areas of the hospital departments: pediatrics, pediatric intensive care unit, labor and delivery, surgery (airway management), respiratory therapy, other selected hospital areas, assisted Living, Skills Nursing Facilities, and facilities for the mentally and physically challenged.

JFS-225. Fire Fighter I Academy (18)

Prerequisite: 1. Certified Emergency Medical Technician diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. 2. Prior to beginning this course students must already be familiar with, and be able to demonstrate all of the skills listed below. These will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them. These minimum knowledge and skill levels are regarding: Familiarity with patient assessment, Familiarity with effective communication, Familiarity with the administration of medication, Familiarity with obstetrics, pediatrics and geriatrics JFS 30: Paramedic Core with a grade of "C" or better

This academy includes instruction on basic firefighting skills, laws and regulations affecting the fire service. The course will provide the student with knowledge and skills to safely perform, under minimal supervision, essential and advanced fire ground tasks, basic rescue, basic fire prevention and fire investigation task and to use, inspect, and maintain firefighting and rescue equipment. This curriculum is intended to provide the minimum required training required by the State of California Fire Marshal in the field of fire technology as it relates to firefighters.

JFS-272. Wildland Fire Origin and Cause Determination FI-210 (0.5)

Prerequisite: JFS 8: Fire Fighter I Academy with a grade of "C" or better 1. State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. 2. Prior to beginning this course students must already be familiar with, and be able to demonstrate all of the skills listed below. These will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them. These minimum knowledge and skill levels are regarding: 1. Firefighter safety 2. Knowledge of wild/and firefighting personal protective equipment, including fire shelter 3. Knowledge of fuel types, precautions, and suppression method(s) 4. Effective verbal communication used in firefighting 5. Knowledge of the methods of heat transfer 6. Familiarity with wild/and fire behavior conditions 7. Familiarity with wild/and fire suppression tools.

Pass/No Pass Option

This 32-hour course is designed to meet the requirements of the National Wildfire Coordinating Group (NWCG) for Wildland Fire Investigator certification, as outlined in the Wildland and Prescribed Fire Qualifications System Guide (PMS 310-1), and the Position Task Book. This course provides the necessary knowledge and basic skills required for the position. The concepts taught in this course meet the minimum national performance standards for a Wildland Fire Investigator. The course consists of eight formal classroom lecture/discussion units, three practical exercises, one practical examination, and a final written examination. Students will have the opportunity to practice new skills in the exercise portions of the class.

JFS-289. Low-Angle Rope Rescue (0.5 - 1)

Pass/No Pass Only

Lec 8 Hrs; Lab 76 Hrs

This 16-24 hour variable course is designed to teach fire personnel techniques and methods for using rope, webbing, hardware friction devices, and litters in low-angle rescue situations. Covers rope and related equipment, anchor systems, safety lines, stretcher lashing and rigging, mechanical advantage systems, and single and two-line rescue systems.

JFS-290. Intermediate Wildland Fire Behavior**Determination FI-210 (1)**

Prerequisite: Required Training: Introduction to Wild/and Fire Behavior, S-190. Prerequisite Experience: Satisfactory performance at the wild/and fire Firefighter Type 2 level.

This variable course is intended to meet 5-290 requirements for wildland fire management. The course addresses wildland fire behavior, safe and effective tactics, and scene management. Activities includes wildfires, fire use and prescribed fire. Prerequisite: Required Training: Introduction to Wildland Fire Behavior, 5-190. Prerequisite Experience: Satisfactory performance at the wildland fire Firefighter Type 2 level.

JFS-300. Outdoor Emergency Care (3)**Pass/No Pass Only**

Lec 8 Hrs; Lab 16 Hrs

This 125 hour course is designed to prepare students to render prehospital basic life support services, including cardiopulmonary resuscitation, with emphasis on field application. Practices, and techniques vital to the interaction of Outdoor Emergency Care Technician with all levels of emergency medical personnel. Students will acquire the knowledge and skills necessary to provide emergency medical care at a basic life support level with a fire, ambulance, or other specialized service. This course is instructed in compliance with Department of Transportation (DOT) regulations and the California Code of Regulations.

JFS-301. Outdoor Emergency Care Update (0.5)

Prerequisite: 1. Completion of Outdoor Emergency Care course or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. 2. Prior to beginning this course students must already be familiar with, and be able to demonstrate all of the skills listed below. These will not be taught in the course; rather, they will be the starting point for advanced training that builds upon them. These minimum knowledge and skill levels are regarding: Familiarity with wellbeing of the rescuer; Knowledge of CPRIAED and First aid; Familiarity with mass casualty incidents; Familiarity with patient assessment; Familiarity with environmental emergencies; Familiarity with snow sport emergencies; Familiarity with mountain biking emergencies; Knowledge of rescue techniques.

This 28-hour update is designed to maintain and update skills and knowledge vital to Outdoor Emergency Care.

JFS-700. Fire Continued Professional Training (0.5 - 2)

Prerequisite: 1. State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. 2. Prior to beginning this course students must already be familiar with, and be able to demonstrate all of the skills listed below. These will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them. These minimum knowledge and skill levels are regarding. Firefighter safety. Don and use SCBA and PASS device, emergency procedure for SCBA failure. Determination of air supply in a hazardous atmosphere Knowledge of all firefighting personal protective equipment, including hand and eye protection. Characteristics and Functions of Nozzles. Knowledge of all firefighting tools and equipment, ladders, and hoses including appropriate selection, carry, and use for each type across all types of emergencies. Fuel types, precautions, and suppression method(s). Attack technique for an interior structure fire. Appropriate use of class A, B, and C fire extinguishers. Rescue knots such as bowline, clove hitch, figure eight on a bright, half hitch, Becket, and safety knots. Radio procedures. Effective verbal communication used in firefighting.

Pass/No Pass Only

This course provides training recommended and required by the California State Fire Marshall to keep students current with new equipment, policies, laws and skills needed to be prepared in the line of duty. It also provides the student with command awareness and the control techniques required to effectively manage a fire fighter emergency event should the situation occur.