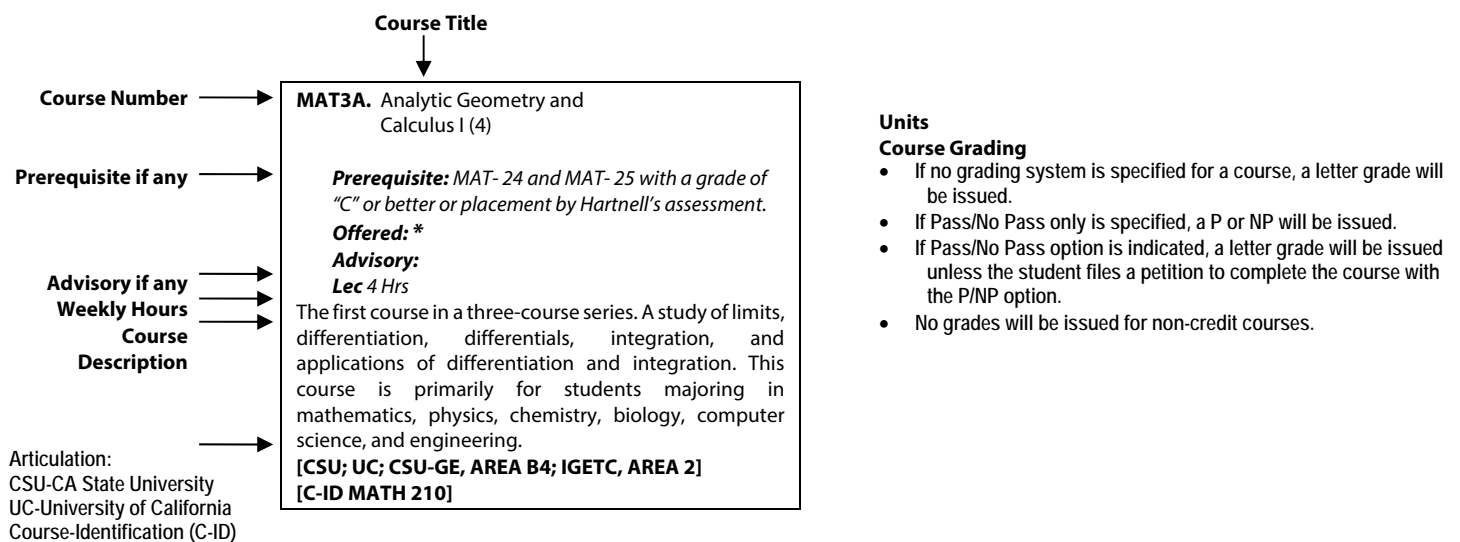


COURSE LISTINGS

HOW TO READ THIS CATALOG



***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-6+	Introductory to Physiology +	C-ID BIOL 120B
ABT-52	Sales and Service in Agribusiness	C-ID AG AB 112	BIO-6L	Physiology Laboratory	
ABT-53	Agribusiness Economics	C-ID AG AB 124	BUS-1A	Financial Accounting	C-ID ACCT 110
ABT-57	Agriculture Computer Applications	C-ID AG AB 108	BUS-1B	Managerial Accounting	C-ID ACCT 120
ABT-90	Soil Science	C-ID AG PS 128L	BUS-18	Legal Environment of Business	C-ID BUS 120
ABT-92	Plant Science	C-ID AG PS 106L	BUS-32	Introduction to Business	C-ID BUS 110
ADJ-1	Introduction to Administration of Justice	C-ID AJ 110	BUS-43	Business Information Systems	C-ID BUS 140
ADJ-2	Community Relations and the Justice System	C-ID AJ 160	CHM-1A	General Chemistry I	C-ID CHEM 110
ADJ-3	Concepts of Criminal Law	C-ID AJ 120	CHM-1A + CHM-1B	General Chemistry I + General Chemistry II	C-ID CHEM 120S
ADJ-4	Criminal Evidence	C-ID AJ 124	CHM-12A	Organic Chemistry I	C-ID CHEM 150
ADJ-5	Criminal Court Process	C-ID AJ 122	CHM-12A + CHM-12B	Organic Chemistry I + Organic Chemistry II	C-ID CHEM 160S
ADJ-8	Criminal Investigation	C-ID AJ 140	CHM-22	The Science of Chemistry	C-ID CHEM 101
ADJ-10	Juvenile Procedures	C-ID AJ 220	COM-1	Introduction to Public Speaking	C-ID COMM 110
ADJ-50	Introduction to Corrections	C-ID AJ 200	COM-2	Argumentation and Debate	C-ID COMM 120
ADJ-51	Control and Supervision in Corrections	C-ID SOCI 160	COM-3	Survey of Human Communication	C-ID COMM 115
ADJ-76	Introduction to Forensics	C-ID AJ 150	COM-4	Intercultural Communication	C-ID COMM 150
ANT-1	Physical Anthropology	C-ID ANTH 110	COM-6	Small Group Communication	C-ID COMM 140
ANT-2	Introduction to Cultural Anthropology	C-ID ANTH 120	COM-7	Introduction to Persuasion	C-ID COMM 190
ART-1A	Art History Survey I	C-ID ARTH 110	COM-8	Interpersonal Communication	C-ID COMM 130
ART-1B	Art History Survey II	C-ID ARTH 120	COM-9	Oral Interpretation of Literature	C-ID COMM 170
ART-3	Drawing and Composition	C-ID ARTS 110	CSS-1	Introduction to Computer Science & Programming Fundamentals	C-ID COMP 112
ART-10	Art Appreciation	C-ID ARTH 100	CSS-1	Introduction to Computer Science & Programming Fundamentals	C-ID ITIS 130
ART-12A	Design	C-ID ARTS 100	CSS-2A	Object Oriented Programming	C-ID COMP 122
ART-13	Three-Dimensional Design	C-ID ARTS 101	CSS-2A + EGN-7L	Introduction to Programming Concepts and Methodologies for Engineers	C-ID ENGR 120
ART-15A	Ceramics A	C-ID ARTS 230	CSS-2B	Data Structures and Algorithms	C-ID COMP 132
ART-72	Introduction to Digital Arts	C-ID ARTS 250	CSS-3	Computer Architecture and Assembly Language Programming	C-ID COMP 142
BIO-1	Fundamental Biological Concepts	C-ID BIOL 190	CSS-7	Discrete Structures	C-ID COMP 152
BIO-1 + BIO-2 + BIO-3	Fundamental Biological Concepts + General Zoology + General Botany	C-ID BIOL 135S			
BIO-2 + BIO-3	General Zoology + General Botany	C-ID BIOL 140			
BIO-3	General Botany	C-ID BIOL 155			
BIO-5	Human Anatomy	C-ID BIOL 110B			

CSS-44	Computer Science & Information Systems	C-ID ITIS 120
CSS-50	Introduction to Networks	C-ID ITIS 120
CSS-56	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	C-ID MATH 140

	Social Sciences	
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-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	C-ID SPAN 100
SPA-1X	Elementary Spanish for Chicano Students	C-ID SPAN 100
SPA-2	Elementary Spanish	C-ID SPAN 110
SPA-2S	Elementary Spanish for Chicano Students	C-ID SPAN 110
SPA-2X	Elementary Spanish for Chicano Students	C-ID SPAN 110
SPA-3	Intermediate Spanish	C-ID SPAN 200
SPA-3S	Intermediate Spanish for Spanish Speakers	C-ID SPAN 220
SPA-4	Intermediate Spanish	C-ID SPAN 210
SPA-4S	Intermediate Spanish 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

COURSE LISTINGS

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-7. Individual Counseling Skills in Chemical Dependency (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 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.

[CSU]

AOD-8. Family and Group Counseling (3)

Corequisite: AOD-1

Advisory: Eligibility for ENG-1A Completion of AOD-2 through AOD-5.

Lec 54 Hrs

A focus on family dynamics and group processes as they relate to chemical dependency. The dynamics of chemical dependency within family systems will be explored and interventions 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-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 and interventions 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-7, AOD-8, AOD-9 or PSY-22 with a grade of "C" or better.**Corequisite:** AOD-10**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]

COURSE LISTINGS

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]

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

Spring Only

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

Spring Only

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

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: ENG-101 or ESL-101 and MAT-121 Successful completion of AAT-120, or prior practical experience in an automotive shop environment is recommended.

Spring Only

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: ENG-101 or ESL-101 and MAT-121 and AAT-120

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: ENG-101 or ESL-101 and MAT-121 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: ENG-101 or ESL-101 and MAT-121, AAT-101 and AAT-120

Spring 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; MAT-121 and AAT-130 with a grade of "C" or better.

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.

AAT-140. Brake Systems (4)**Advisory:** ENG-253 or ESL-265 and MAT-201**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)**Fall 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 Drivetrain (4)**Advisory:** ENG-253 or ESL-265 and MAT-201 and

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, drivetrains 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**Advisory:** ENG-253 or ESL-265 and MAT-201**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.

ADVANCED DIESEL TECHNOLOGY

ADT-100. Diesel Engine Technology (4)**Advisory:** ENG-101 or ESL-101 and MAT-121**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:** ENG-101 or ESL-101 and MAT-121**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:** ENG-101 or ESL-101 and MAT-121**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.

ADT-111. Electrical Systems and Controls (4)**Advisory:** ENG-101 or ESL-101 and MAT-121**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.

COURSE LISTINGS

ADT-120. Climate Control (4)

Advisory: ENG-101 or ESL-101 and MAT-121

Fall Only

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: ENG-101 or ESL-101 and MAT-121

Fall 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: ENG-101 or ESL-101 and MAT-121

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: ENG-101 or ESL-101 and MAT-121

Fall

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: ENG-101 or ESL-101 and MAT-121

Fall 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: ENG-101 or ESL-101 and MAT-121

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/Spring

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/Spring****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-66. Introduction to Geographic Information Systems (GIS) (3)****Lec 36 Hrs; Lab 54 Hrs**

Introduction to the fundamentals of Geographic Information Systems including data collection and input, data management, spatial query and analysis. Defining of a problem to study, analyze and develop solutions using GIS Technology.

[CSU]**ABT-67. Intermediate GIS with Applications to Agriculture (3)****Prerequisite:** ABT-66 with a grade of "C" or better.**Lec 36 Hrs; Lab 54 Hrs**

Intermediate topics in GIS with application to agricultural problems. Students will have the opportunity to expand on the skills learned in previous GIS courses through instructor and student-led discussions, literature readings, and labs. Course content will cover intermediate topics on surface analysis, remote sensing, spatial database design, and building geoprocessing models. Project design, implementation and management.

[CSU]**ABT-80. Introduction to Sustainable Agriculture and Food (3)****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]**ABT-81. Integrated Pest Management Principles in Entomology (3)****Spring Only****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]

COURSE LISTINGS

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

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

Fall Only

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.

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-91. Irrigation Practices and Materials (3)

Spring Only

Lec 36 Hrs; Lab 54 Hrs

Principles and practices of California water delivery including: plant-soil-moisture relationships and water movement in the soil; water quality, water law, measurement of water; evaluation of irrigation methods, systems, wells and pumps. Laboratory required.

[CSU]

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)

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.

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)

Lec 36 Hrs; Lab 54 Hrs

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)

Spring Only

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**

Production and management practices of grapes and berries will be presented. 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. Students will be required to prepare a budget and calendar of operations.

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

Covers the composition, value, selection, and use of fertilizer materials and soil amendments. Soil, plant, and fertilizer relationships will be covered. Application practices currently being used in California will be discussed. Includes field trips.

[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)**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)**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)**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)**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.

COURSE LISTINGS

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.

Fall 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)

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: ENG-1A**Spring 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]

COURSE LISTINGS

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

Advisory: ENG-1A

Fall/Spring

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 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.

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 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

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.

APP-245. Special Projects (2)

Pass/No Pass Option

Lab 24-108 Hrs

Supervised study and individualized instruction for apprentices entering a trade or transferring to a Hartnell College apprenticeship program at a time when regularly scheduled classes are not available.

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]

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]

COURSE LISTINGS

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 Designed (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]**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 Only****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]

COURSE LISTINGS

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 course: 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: MAT-123, 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: MAT-123 with a grade of "C" or better or placement by Hartnell's assessment and 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: MAT-123 with a grade of "C" or better or placement by Hartnell's assessment and 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)

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

Advisory: Completion of any college-level biology 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]

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]

COURSE LISTINGS

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 54 Hrs

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]

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-59. Biological Research Methods (3)

Advisory: MAT-121 or placement by Hartnell's assessment. Completion of a chemistry class at either the high school or college level

Lec 27 Hrs; **Lab** 81 Hrs

This course provides training in research methods in the biological sciences. It is intended to prepare students for work on independent projects in a professional laboratory environment. Students will learn how to develop a project, collect and record data using appropriate techniques, conduct and analyze experiments, and communicate their findings. This course provides intensive training in research methods used in biology, chemistry, agriculture, and other disciplines in which living organisms are studied in a laboratory setting. Lecture and lab experiences include laboratory safety, data collection and record keeping, use and maintenance of laboratory equipment, aseptic technique, calculation and preparation of solutions and media, fundamentals of measurement, separation technologies, and specialized methods in field studies and biotechnology. This course is recommended for students seeking to acquire skills that can be applied in the workplace or in advanced studies.

[CSU; UC]

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 (4)

Advisory: Completion of BUS-152 and BUS-32. Eligibility for ENG-1A; and MAT-123;

Pass/No Pass Option

Fall/Spring

Lec 63 Hrs; **Lab** 27 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 (4)

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

Pass/No Pass Option

Fall/Spring

Lec 63 Hrs; **Lab** 27 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]

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]

COURSE LISTINGS

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-110. Beginning Keyboarding and Document Formatting (2)

Pass/No Pass Option

Lec 18 Hrs; Lab 54 Hrs

Introduction to keyboarding and basic techniques using the touch system on the computer as well as basic document processing. Emphasis on speed and accuracy on straight copy and 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 110A, 110B or 111.

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-111. Intermediate Office Skills (3)

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

Pass/No Pass Option

Spring Only

Lec 36 Hrs; Lab 54 Hrs

Continued improvement of keyboarding speed and accuracy by "touch"; 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 production procedure and the integration of basic office skills.

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 (2)

Pass/No Pass Option

Lec 36 Hrs

This course 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****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-150.25. Electronic Spreadsheets (3)**Advisory:** Keyboarding speed of 25 words a minute recommended.**Pass/No Pass Option****Lec** 36 Hrs; **Lab** 54 Hrs

Use of spreadsheet features/commands to create and edit electronic spreadsheets using a computer. Not open to students who have completed CSS 150.25.[CSU]

BUS-151. Business Mathematics (3)**Pass/No Pass Option****Lec** 54 Hrs

Study of the principles of arithmetic and their business applications, including a review of whole numbers, fractions, decimals, and percents. Development of problem-solving skills through analysis of various types of word problems.

BUS-152. Introduction to Accounting (4)**Pass/No Pass Option****Lec** 63 Hrs; **Lab** 27 Hrs

This course introduces the basic accounting cycle for a service concern. 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****Fall 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.

**BUS-172. Business Machine Calculations
Microcomputer (1)****Advisory:** MAT-106 is strongly recommended.**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****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****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****Fall Only****Lec** 36 Hrs

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

COURSE LISTINGS

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: MAT-123 and CHM-22 with a grade of "C" or better or Completion of one year of high school chemistry with a grade of "C" or better. Students may complete a prerequisite clearance process in lieu of CHM-22.

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

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 a grade of "C" or better.**Lec** 54 Hrs; **Lab** 108 Hrs

CHM-12A is 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** 54 Hrs; **Lab** 108 Hrs

CHM-12B is 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:** MAT-121 with a grade of "C" or better.**Advisory:** Eligibility for ENG-1A or ENG-1AX**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:** Eligibility for MAT-121**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**Fall/Spring****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]**

COURSE LISTINGS

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-10. Forensics (3)

Advisory: Prior or concurrent enrollment in COM 1 or 3 is recommended.

Pass/No Pass Option

Lec 36 Hrs; Lab 54 Hrs

Introduces students to Forensics competition including advanced research, delivery, criticism and writing techniques through preparation to compete in intercollegiate speech and debate tournaments and related events. Students will be required to attend at least one weekend tournament over the course of the semester. The course may be repeated 3 times.

[CSU; UC]

COMPUTER SCIENCE AND INFORMATION SYSTEMS

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

Prerequisite: Eligibility for MAT-123 and Eligibility for ENG-1A.

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****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]**CSS-7. Discrete Structures (4)****Prerequisite:** CSS-2A with a grade of "C" or better.**Advisory:** MAT-25**Pass/No Pass Option****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]

COURSE LISTINGS

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, javascripting, and databases.

[CSU]

CSS-44. Computer Science and Information Systems (4)

Advisory: ENG-101 or ESL-101

Pass/No Pass Option

Lec 54 Hrs; Lab 54 Hrs

Examination of computer information systems and their role in computer science. Focus on information systems, database management systems, networking, e-commerce, ethics and security, computer systems hardware, software development life cycle, algorithms, and elementary programming concepts. Application of these concepts and methods through hands-on projects developing computer-based solutions to computer systems problems.

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

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 Systems (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]**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]

COURSE LISTINGS

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 Flash (4)

Pass/No Pass Option

Lec 54 Hrs; Lab 54 Hrs

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

[CSU]

CSS-86. Flash Design (4)

Pass/No Pass Option

Lec 54 Hrs; Lab 54 Hrs

The course will focus on the skills necessary for the effective use of Flash. Students will create Flash 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 Flash. Formerly CSS-127. Not open to students who have completed CSS-127 with a grade of "C" or better.

[CSU]

CSS-169. Computer Maintenance and Repair (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.

CONSTRUCTION MANAGEMENT AND ARCHITECTURE

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

Pass/No Pass Option

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)

Lec 54 Hrs

Introduction to fundamental 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.

[CSU]

CMA-53. Sustainable Construction Materials and Methods (3)

Pass/No Pass Option

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)

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

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

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

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

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

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]

CMA-63. Concrete and Masonry Technology (3)

Pass/No Pass Option

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

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

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]

COURSE LISTINGS

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

Advisory: CMA-81

Pass/No Pass Option

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

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

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 Drawing and Print Reading (3)

Pass/No Pass Option

Lec 36 Hrs; Lab 54 Hrs

Introduction to print reading and technical drawing. Students will learn to apply the principles of orthographic projection, technical sketching, applied geometry, reading, interpreting technical drawings, technical sketching, the use of drawing instruments, drawing layout, standards and dimensioning techniques. Not open to students who have completed DRA-50 or DRA-64 with a "C" or better.

[CSU]

CMA-75. Engineering Drawing with Solidworks (3)

Advisory: CMA-74

Pass/No Pass Option

Lec 36 Hrs; Lab 54 Hrs

Introduces students to essential features of the SolidWorks 3-D computer-aided design modeling application software. Students will construct parts, solid models, assemblies, as well as generate orthographic drawings, add dimensions and plot to produce engineering documentation packages. Formerly EGN-12 and DRA-55. Not open to students who have completed EGN-12 or DRA-55 with a grade of "C" or better.)

[CSU; UC]

CMA-76. Computer-Aided Mechanical Drawing and Detailing (3)

Advisory: CMA-75

Pass/No Pass Option

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)

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.**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****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****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****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)****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]

COURSE LISTINGS

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 Only

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

All Terms

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 Only

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)

Fall/Spring

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)

Advisory: Eligibility for ENG-101/ESL-101 or placement by Hartnell's assessment.

All Terms

Lec 54 Hrs

An examination of the processes of socialization focusing on the interrelationships of family, school, and community and the impact on children's development; emphasizing historical and socio-cultural factors.

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

[C-ID CDEV 110]

ECE-4. Introduction to Curriculum (3)

Advisory: ECE-1 and Eligibility for ENG-101/ESL-101 or higher based Hartnell's assessment.

Fall/Spring

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)

Advisory: ENG-101/ESL-101 with a grade of "C" or better.

All Terms

Lec 54 Hrs

Examines the major physical, cognitive, social and emotional developmental milestones for children from conception through adolescence. Emphasis on interactions between maturational processes and environmental factors. Students will observe children, evaluate individual differences, and analyze characteristics of development at various stages according to developmental theories. Formerly FCS-14. Not open to students who have completed FCS-14 with a grade of "C" or better.

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

[C-ID CDEV 100]

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

Spring Only

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)

Advisory: Eligibility for ENG-101/ESL-101 or placement by Hartnell's assessment.

Fall/Spring

Lec 54 Hrs

The appropriate use of assessment tools and observation techniques and strategies to document young children's development, behavior, and learning through child and environmental observations. Emphasizes use of findings to inform and plan learning environments and experiences. Multiple observation techniques and assessment tools, recording strategies, rating systems, portfolios, will be explored. Strategies for collaboration with families and professionals will be analyzed.

[CSU] [C-ID ECE 200]

ECE-11. Cognitive Activities and Materials (3)

Spring Only– Odd Years

Lec 54 Hrs

Explores the implementation of cognitive theories and methods to develop learning experiences and activities to foster intellectual development among young preoperational children and to promote their interest and respect for learning.

[CSU]

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).

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

Fall/Spring

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)

Fall/Spring

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]

COURSE LISTINGS

ECE-20. Infant and Toddler Development (3)

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

Advisory: ENG-101 or ESL-101

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)

Prerequisite: ECE-20 with a grade of "C" better.

Advisory: ENG-101 or ESL-101

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-24. Infant/Toddler: Special Needs (3)

Advisory: ECE-20 and/or ECE-26

Lec 54 Hrs

Designed for students interested in increasing their skills and knowledge to work effectively with infants and toddlers with special needs in an inclusive environment. Focus of early intervention includes laws, regulations, rights of families and young children with special needs, theories, research, and best practices of early childhood education.

[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)

Advisory: Eligibility for ENG-101 and ESL-101 or higher based on Hartnell's assessment.

Fall/Spring

Lec 54 Hrs

Will examine the influences on development of children's social identities. Examination of culturally relevant and linguistically appropriate anti-bias approaches supporting all children. Reflection on one's own understanding of diversity in order to inform teaching practices and/or program development.

[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.

Advisory: Eligibility for ENG-1A or equivalent.

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)

Prerequisite: Eligibility for ENG-1A; Must possess or be eligible for the teacher permit issued by the Commission on Teacher Credentialing. Must complete ECE core courses plus 12 ECE units. ECE-2, ECE-4 and ECE-6 with a grade of "C" or better.

Lec 36 Hrs

Designed for supervisors, head teachers, and administrators coordinating early childhood programs about methods and principles of supervising student teachers, staff, and other adults in an early care and education licensed programs or agency. Emphasis is on the roles and development of early childhood professionals as mentors and leaders. Meets the licensing requirement for teachers, site supervisors, and directors. Students must present a copy of the Child Development Teacher permit on the first day of class.

[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: MAT-123 with a grade of "C" or better.

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: MAT-123 with a grade of "C" or better.

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.

COURSE LISTINGS

EDU-111. Team Self-Management (2)

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

Advisory: Eligibility for ENG-101 or Accuplacer Reading Comprehension score of 40+

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, ENG-101, 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 ridealong 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 Allied Health for detailed information (831) 770-6146.

EMT-53. Emergency Medical Technician (9)

Prerequisite: American Heart Association "BLS for the Health Care Provider" CPR card.

Advisory: EMT-53: Emergency Medical Technician and each student will be required to undergo a background check, drug screen, physical, and provide appropriate vaccinations.

All Terms

Lec 126 Hrs; **Lab** 108 Hrs

The EMT course includes California mandated curriculum. Classroom and learning laboratory experiences include the function and structure of human systems and basic life support skills. Students are required to complete twenty-four (24) hours of supervised clinical experience, which includes a minimum of ten (10) patient contacts during which the student's performance is evaluated based on quality of patient assessment BLS skills. Each student will be required to undergo a background check, drug screen, physical, and provide appropriate vaccinations (at students' expense) in order to complete the clinical phase of the course. To qualify for the National Registry Exam (additional fee), students must pass with a 75%, hold a current BLS card, and be 18 years of age.

[CSU]

ENGINEERING

EGN-1L. Introduction to Engineering Lab (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-1R. Introduction to Engineering (2)

Prerequisite: MAT-123 or MAT-123L4 with a grade of "C" or better or placement by Hartnell's assessment.

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-2. Engineering Graphics & Design (3)

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

Advisory: EGN-1 or EGN-1R

Lec 54 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-1

Lec 54 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-1 and EGN-5 or EGN-7

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]

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-1; EGN-2; Concurrent enrollment in EGN-4 is recommended.

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)

Prerequisite: ENG-101 or ESL-101 with a grade of "C" or better or placement by Hartnell's assessment.

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]

COURSE LISTINGS

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

Prerequisite: ENG-101 or ESL-101 with a grade of "C" or better or placement by Hartnell's assessment.

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 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, 3]

[C-ID ENGL 120]

ENG-2. Critical Thinking and Writing (3)

Prerequisite: ENG-1A 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: Eligibility for ENG-1A.

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 3]

ENG-22. Studies in Poetry (3)

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 3]

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 3]

ENG-26. Chicanx 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 Chicanx 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 3]

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-32. Intermediate Creative Writing (3)

Prerequisite: ENG-31 with a grade of "C" or better.

Lec 54 Hrs

The course focuses on continuing to apply the techniques and structures of writing fiction and poetry introduced in ENG 31. 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]

ENG-33. Advanced Creative Writing (3)

Prerequisite: ENG-32 with a grade of "C" or better.

Lec 54 Hrs

Focuses on continuing to apply the techniques and structures of writing fiction and poetry introduced in ENG 32. 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]

ENG-41. Art of Steinbeck (3)

Prerequisite: ENG-101 or ESL-101 with a grade of "C" or better or placement by Hartnell's Assessment.

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 3]

ENG-44A. World Literature (3)

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

Fall Only –Even 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 3]

[C-ID ENGL 140]

ENG-44B. World Literature II (3)

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

Lec 54 Hrs

This course is a 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 3]

[C-ID ENGL 145]

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

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

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 3]

[C-ID ENGL 160]

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

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

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 3]

[C-ID ENGL 165]

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

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

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 3]

[C-ID ENGL 130]

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

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

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 3]

[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.

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]

ENG-101. Intermediate Composition and Reading (3)

Prerequisite: ENG-253 or ESL-265 with a grade of "C" or better or placement by Hartnell's assessment.

Lec 54 Hrs

Development of critical reading and composition skills, including sentence, paragraph, and essay element, in order to perform close critical analysis of assigned readings. Writing emphasis is on composing and revising expository and argumentative essays that incorporate evidence from multiple sources in preparation for ENG-1A or ENG-1AX. Students will write a minimum of 6,000 words in graded assignments.

COURSE LISTINGS

ENG-102. Composition and Reading for Career and Technical Education (3)

Advisory: *This course is intended for students pursuing subjects related to career and technical education certificates.*

Pass/No Pass Option

Lec 54 Hrs

Study of the use of grammar, punctuation, structure and vocabulary with a focus on reading and writing as it is accepted in modern business and industry communications for use in preparing common business documents. Vocabulary in context, critical analysis, and problem solving in the application of sentence, paragraph, and report-level writing conventions as used in business and industry are emphasized. Meets the English requirement for CTE certificates.

ENG-253. Fundamentals of Composition and Reading (5)

Lec 90 Hrs

Development of reading and writing skills with emphasis on the short, persuasive essay and its components.

ENGLISH AS A SECOND LANGUAGE

ESL-101. Academic Writing and Reading II (5)

Advisory: *ESL-265*

Pass/No Pass Option

Fall/Spring

Lec 90 Hrs

Development of college reading and composition skills for multilingual and ESL students. Emphasis on writing essays from readings, using sources, and revising. Prepares students for ENG-1A.

ESL-227A. Low Beginning Speaking & Listening (3)

Pass/No Pass Option

Fall Only

Lec 54 Hrs

Listening and conversation practice, at the low-beginning level, to promote the development of listening and speaking competency for multi-lingual English speakers.

ESL-227B. Beginning Speaking & Listening (3)

Pass/No Pass Option

Fall Only

Lec 54 Hrs

Listening and conversation practice, at the beginning level, to promote the development of listening and speaking competency for multi-lingual English speakers.

ESL-233. Grammar, Vocabulary, and Reading 2 (6)

Fall Only

Lec 90 Hrs; Lab 54 Hrs

Emphasizes the development of writing, vocabulary, and reading skills for low-intermediate level ESL students. Includes three hours/week of lab instruction.

ESL-237A. High-Beg Speaking & Listening (3)

Pass/No Pass Option

Lec 54 Hrs

Listening and conversation practice, at the high-beginning level, to promote the development of listening and speaking competency for multi-lingual English speakers.

ESL-237B. Low-Intermediate Speaking & Listening (3)

Pass/No Pass Option

Fall Only

Lec 54 Hrs

Listening and conversation practice, at the low-intermediate level, to promote the development of listening and speaking competency for multi-lingual English speakers.

ESL-239. English Language Skills for Work (1)

Pass/No Pass Only

This is a self-paced course taught in a lab setting. It is intended for English-language learners to develop language skills for job searching, career planning, and working.

ESL-243. Grammar, Vocabulary, and Reading 3 (6)

Fall/Spring

Lec 90 Hrs; Lab 54 Hrs

Emphasizes grammar, vocabulary and reading comprehension skills for intermediate level ESL students. Includes three hours of lab per week.

ESL-247A. High-Intermediate Listening & Speaking (3)

Pass/No Pass Option

Spring Only

Lec 54 Hrs

Listening and conversation practice, at the high-intermediate level, to promote the development of listening and speaking competency.

ESL-247B. Low Advanced Listening & Speaking (3)

Pass/No Pass Option

Lec 54 Hrs

Listening and conversation practice, at the low-advanced level, to promote the development of listening and speaking competency.

ESL-252. English Pronunciation and Spelling (3)

Fall/Spring

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.

ESL-255. Grammar and Writing 4 (6)**Advisory:** *ESL-243***Pass/No Pass Option****Fall/Spring****Lec 90 Hrs; Lab 54 Hrs**

Emphasizes grammar and writing for high-intermediate level ESL students. Verb tenses, conditionals, complex sentences, and paragraph writing skills are stressed. Course includes three weekly hours of lab.

ESL-258. Reading and Vocabulary 4 (4)**Advisory:** *ESL 243: Grammar, Vocabulary, and Reading 3 or eligibility for ESL 255 through college placement***Fall/Spring****Lec 72 Hrs**

For high-intermediate ESL students. Uses current issues and nonfiction texts to develop critical reading skills, academic vocabulary, and discussion skills.

ESL-265. Academic Writing and Reading I for ESL (5)**Advisory:** *ESL-255 and ESL-258***Fall/Spring****Lec 90 Hrs**

Introduction to college reading and composition for multilingual and ESL students. Emphasis on the paragraph and short essay. Prepares students for ESL-101 and ENG- 101.

ESL-290A. 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.

ESL-290B. 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.

ESL-290C. 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.

ESL-290D. 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.

ESL 610, 620, 615, and 625 are Basic English courses and therefore have no tuition cost.

ESL-610. Beginning ESL: Speaking & Listening (0)**Advisory:** *Placement into appropriate level through assessment.***Pass/No Pass Only****All Terms****24 Hrs**

This course develops English skills and provides basic orientation to college for beginning ESL students who are literate in their first language. Speaking and listening skills will be emphasized.

ESL-615. High-Beginning ESL: Speaking and Speaking (0)**Advisory:** *Placement into appropriate level through assessment. It is recommended that students take ESL-610A before 610B.***Pass/No Pass Only****All Terms****24 Hrs**

This course develops English skills and provides basic orientation to college for high beginning ESL students who are literate in their first language. Speaking and listening skills will be emphasized.

COURSE LISTINGS

ESL-620. Beginning ESL: Reading and Writing (0)

Advisory: Placement into appropriate level through assessment.

Pass/No Pass Only

All Terms

24 Hrs

This course develops English skills and provides basic orientation to college for beginning ESL students who are literate in their first language. Reading and writing skills will be emphasized.

ESL-625. High-Beginning ESL: Reading and Writing (0)

Advisory: It is recommended that students take ESL-620 before 625. Placement into appropriate level through assessment

Pass/No Pass Only

All Terms

24 Hrs

This course develops English skills and provides basic orientation to college for high-beginning ESL students who are literate in their first language. Reading and writing skills will be emphasized.

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

Pass/No Pass Only

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.

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

Pass/No Pass Only

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.

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

Pass/No Pass Only

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.

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

Pass/No Pass Only

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.

ETHNIC STUDIES

ETH-1. Introduction to Ethnic Studies (3)

Advisory: Eligibility for ENG-1A.

All Terms

Lec 54 Hrs

A historical and interdisciplinary approach to the study of ethnic and racial groups in the United States. African Americans, Asian Americans, Mexican/Latino Americans, and Native American experiences are examined.

[CSU; UC; CSU-GE, AREA D3; IGETC, AREA 4]

ETH-2. Chicano Leadership (3)

Lec 54 Hrs

Multidisciplinary survey of Chicano leadership by examining theories of Chicano leadership, how historical events have affected the development of Chicano leadership to an examination of local, state, and national political leaders and organizations. Local Chicano leadership formation is also examined.

[CSU; UC; CSU-GE, AREA D3; IGETC, AREA 4]

ETH-3. Chicanos in American Society (3)

Advisory: Eligibility for ENG-1A.

Lec 54 Hrs

A multi-disciplinary approach designed to acquaint students with Chicano history and problems in contemporary society. The course considers social institutions in shaping the experiences of Chicanos. Topics include colonization, politics, family, education, culture and religion, health and Chicano activism.

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

ETH-4. Chicano Culture (3)*Lec 54 Hrs*

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

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

ETH-5. Chicano Politics and the American Political System (3)*Advisory: ENG-1A and POL-1**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)*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. Chicano Theatre (3)*Advisory: ENG-1A**Pass/No Pass Option**Lec 54 Hrs*

Introduces students to Chicano Theatre of North and South America. The course examines the rich history and ongoing developments in the culture and identity of the Chicano through exploration of the historical and contemporary Chicano way of life illustrated in stage production. Not open to students who have completed TAC-7 Chicano Theatre with a grade of "C" or better.

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

ETH-12. Chicano Cinema (3)*Advisory: Eligibility for ENG-101 or ESL-101**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]

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]

COURSE LISTINGS

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****ASS/NO PASS****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**Corequisite:** ESL-101 or ESL-233 or ESL-237 or ESL-243 or ESL-247A or ESL-247B or ESL-252 or ESL-255 or ESL-258 or ESL-256 or ESL-290A or ESL-290B or ESL-290C or ESL-290D or ESL-610 or ESL-615 or ESL-620 or ESL-625 or ESL-690A or ESL-690B or ESL-690C or ESL-690D**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-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**Corequisite:** ESL-101 or ESL-233 or ESL-237 or ESL-243 or ESL-247A or ESL-247B or ESL-252 or ESL-255 or ESL-258 or ESL-256 or ESL-290A or ESL-290B or ESL-290C or ESL-290D or ESL-610 or ESL-615 or ESL-620 or ESL-625 or ESL-690A or ESL-690B or ESL-690C or ESL-690D**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.

COURSE LISTINGS

HSE-660S. High School Equivalency: HISET/GED Level 3 in Spanish

Corequisite: ESL-101 or ESL-233 or ESL-237 or ESL-243 or ESL-247A or ESL-247B or ESL-252 or ESL-255 or ESL-258 or ESL-256 or ESL-290A or ESL-290B or ESL-290C or ESL-290D or ESL-610 or ESL-615 or ESL-620 or ESL-625 or ESL-690A or ESL-690B or ESL-690C or ESL-690D

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]

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)

All Terms

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

Spring 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.

Fall 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-90. Memory Skills (1)

Pass/No Pass Only

Lec 18 Hrs

Basic principles of memory improvement with an emphasis on brain functions in relation to memory and applied memory methods. Designed for students with identified memory and concentration deficits, learning disabilities, and other learning challenges. Applications to college coursework, study skills, test taking as well personal and social situations.

[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 18 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 18 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 18 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 18 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]

MFGT-130. Introduction to Metal Fabrication (3)

Lec 27 Hrs; Lab 81 Hrs

Introduction to metal fabrication; use of shop tools and equipment; and to the principles of safe setup, planning, layout and fabrication of projects.

MFGT-131. Intermediate Metal Fabrication (3)

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

Lec 27 Hrs; Lab 81 Hrs

Second of three metal fabrication courses with a focus on: use of shop tools and equipment; principles of safe setups and use of welding equipment; planning, layout, and fabrication of projects; metal cutting processes; and preparation and coating of metals. Formerly AIT-131. Not open to students who have completed AIT-131 with a grade of "C" or better.

MFGT-132. Advanced Metal Fabrication (3)

Prerequisite: MFGT-131 with a grade of "C" or better.

Corequisite: CMA-81 and WLD-151

Lec 27 Hrs; Lab 81 Hrs

Third of three metal fabrication courses with a focus on: use of shop tools and equipment; principles of safe setups and use of welding and machining equipment; planning, layout, and fabrication of projects; and metal cutting and machining processes.

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.

COURSE LISTINGS

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-169. Hazardous Materials and Industrial Safety (2)

Lec 36 Hrs

An introductory course to all aspects of safety as it relates to industry. The course will cover the following topics: Hazardous materials as they pertain to the specific trades including construction, welding, auto repair, electronics, auto collision repair, health care services, personal protective equipment, materials handling and storage, industrial hygiene, safety inspections, and general industrial safety of proper use of tools and machines. Student may have the opportunity to receive an OSHA 10 card. Formerly AGR-169, MEC-169, or AIT-169. Not open to students who have completed AGR-169, MEC-169, or AIT-169 with a grade of "C" or better

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.

MATHEMATICS

MAT-2. Calculus for Managerial, Life, and Social Sciences (4)

Prerequisite: MAT-123 with a grade of "C" or better or placement by Hartnell's assessment.

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]

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:** MAT-123 or MAT-123L4 with a grade of "C" or better or placement by Hartnell's assessment.**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:** MAT-123 or MAT-123L4 with a grade of "C" or better or placement by Hartnell's assessment.**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:** MAT-123 or MAT-123L4 with a grade of "C" or better or placement by Hartnell's assessment.**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:** MAT-123 or MAT-123L4 with a grade of "C" or better or placement by Hartnell's assessment.**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-18. Integrated Statistics II (6)****Prerequisite:** MAT-118 with a grade of "C" or better.**Lec** 108 Hrs

This course is intended for non-STEM majors and/or majors not requiring Statistics. This is the second semester course in a two course series that integrates algebra, probability and statistics. It covers concepts and methods of statistics with emphasis on data analysis. Topics include collecting data, graphical and numerical summaries of data, linear correlation and regression, probability, confidence intervals, hypothesis testing, chi-squared tests and ANOVA. Both MAT-118 and MAT-18 must be completed with a grade of "C" or better to receive credit for transfer-level Statistics.

[CSU; CSU-GE AREA B4] [CSU with MAT 118]**[UC with MAT 118] [C-ID MATH 110 with MAT 118]****MAT-24. Trigonometry (3)****Prerequisite:** MAT-123 or MAT-123L4 with a grade of "C" or better or placement by Hartnell's assessment.**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:** MAT-123 or MAT-123L4 with a grade of "C" or better or placement by Hartnell's assessment.**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]

COURSE LISTINGS

MAT-27. Accelerated Pre-Calculus & Trigonometry for STEM (6)

Prerequisite: MAT-123 or MAT-123L4 with a grade of "C" or better or placement by Hartnell's assessment.

Advisory: MAT-123 with a grade of "B" or better.

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-106. Integrated Mathematics (3)

Lec 54 Hrs

This developmental course is intended for non-STEM majors, in particular, for Career and Technical Education (CTE) students in Certificate and non-transferable Degree programs. An activity-based approach is used to explore numerical relationships, graphs, proportional relationships, algebraic reasoning, and problem solving using linear, exponential, and other mathematical models. Students will acquire conceptual and procedural tools that support the use of key mathematical concepts in a variety of contexts such as financial, environmental, and health issues.

MAT-116. Bridge to Intermediate Algebra (3)

Prerequisite: MAT-106, MAT-201, MAT-201L3 with a grade of "C" or better or Eligibility for MAT-121.

Lec 54 Hrs

Intended for students who need a bridge course to transition to MAT-123 (Intermediate Algebra), particularly those who have completed MAT-106 (Integrated Math). Topics include signed arithmetic, fractions, linear equations and inequalities, polynomials, rational expressions, radical expressions, and quadratic equations.

MAT-118. Integrated Statistics I (6)

Prerequisite: MAT-201 with a grade of "C" or better.

Lec 108 Hrs

This course is intended for non-STEM majors and/or majors not requiring Statistics. This is the first semester course in a two course series that integrates algebra, probability and statistics. It covers concepts and methods of statistics with emphasis on data analysis. Topics include collecting data, graphical and numerical summaries of data, linear correlation and regression, probability, confidence intervals, hypothesis testing, chi-squared tests and ANOVA. Both MAT-118 and MAT-18 must be completed with a grade of "C" or better to receive credit for transfer-level statistics.

MAT-121. Elementary Algebra (5)

Prerequisite: MAT-201 or MAT-201L3 or BUS-151, with a grade of "C" or better or placement by Hartnell's assessment.

Lec 90 Hrs

Topics include operations with real numbers, simplifying expressions, solving equations, linear graphing techniques, linear equations and inequalities (both one and two variables), polynomials, factoring, rational expressions, exponents, radicals, and applications. Not open to students who have completed, with a grade of "C" or better, Math 121L2.

MAT-121L1. Elementary Algebra Level 1 (1.25)

Prerequisite: MAT-201 or MAT-201L3 or BUS-151 with a grade of "C" or better.

Lab 67.5 Hrs

The first course in a four-course sequence that is equivalent to MAT 121. A study of the arithmetic of real numbers, algebraic expressions and equations, and their applications. Not open to students who have completed MAT-121 with a grade of "C" or better.

MAT-121L2. Elementary Algebra Level 2 (1.25)

Prerequisite: MAT-121L1 with a grade of "C" or better.

Lab 67.5 Hrs

The second course in a four-course sequence that is equivalent to MAT 121. A study of linear equations and inequalities in one variable, linear equations in two variables, and applications. Not open to students who have completed MAT-121 with a grade of "C" or better.

MAT-121L3. Elementary Algebra Level 3 (1.25)

Prerequisite: MAT-121L2 with a grade of "C" or better.

Lab 67.5 Hrs

The third course in a four-course sequence that is equivalent to MAT 121. A study of exponents, polynomials, factoring, and applications. Not open to students who have completed MAT-121 with a grade of "C" or better.

MAT-121L4. Elementary Algebra Level 4 (1.25)

Prerequisite: MAT-121L3 with a grade of "C" or better.

Lab 67.5 Hrs

The fourth course in a four-course sequence that is equivalent to MAT 121. A study of rational expressions, roots and radicals, and applications. The final examination covers the content from all levels (121L1-121L4). Not open to students who have completed MAT-121 with a grade of "C" or better.

MAT-123. Intermediate Algebra (5)

Prerequisite: MAT-121 or MAT-121L4 with a grade of "C" or better or placement by Hartnell's assessment.

Lec 90 Hrs

Review of elementary algebra plus more advanced problems of factoring, rational expressions, linear and quadratic equations, functions and graphs, systems of equations and inequalities, exponents, radicals, exponential and logarithmic functions, conic sections, sequences, series and applications related to all the functions of intermediate algebra. Not open to students who have completed MAT-123L2, or its equivalent, with a grade of "C" or better.

MAT-123L1. Intermediate Algebra Level 1 (1.25)

Prerequisite: MAT-121 or MAT-121L4 with a grade of "C" or better or Placement test by Hartnell's Multiple Measures (such as placement test, transcripts...)

Lab 67.5 Hrs

The first course in a four-course sequence that is equivalent to MAT-123. Review of elementary algebra plus more advanced topics in graphing, systems of equations and inequalities, and applications. Not open to students who have completed MAT-123 with a grade of "C" or better.

MAT-123L2. Intermediate Algebra Level 2 (1.25)

Prerequisite: MAT-123L1 with a grade of "C" or better.

Lab 67.5 Hrs

The second course in a four-course sequence that is equivalent to MAT-123. A study of relations and functions, variation, polynomials and factoring, and solving equations by factoring. Not open to students who have completed MAT-123 with a grade of "C" or better.

MAT-123L3. Intermediate Algebra Level 3 (1.25)

Prerequisite: MAT-123L2 with a grade of "C" or better.

Lab 67.5 Hrs

The third course in a four-course sequence that is equivalent to MAT-123. Study of rational expressions and equations, radicals and radical equations, rational exponents, complex numbers, quadratic equations in one and two variables, and applications. Not open to students who have completed MAT-123 with a grade of "C" or better.

MAT-123L4. Intermediate Algebra Level 4 (1.25)

Prerequisite: MAT-123L3 with a grade of "C" or better.

Lab 67.5 Hrs

The last course in a four-course sequence that is equivalent to MAT-123. Study of exponential and logarithmic functions, conic sections, nonlinear systems of equations and inequalities, sequences, series, and applications. Final examination will include topics from all levels (L1-L4) of the course. Not open to students who have completed MAT-123 with a grade of "C" or better.

MAT-126. Quantitative Reasoning for Personal and Professional Life (4)

Prerequisite: MAT-106 or MAT-121 or MAT-121L4 with a grade of "C" or better or placement by Hartnell's assessment.

Lec 72Hrs

Understanding, interpreting, and reasoning with the quantitative information of everyday life. An application-based treatment of useful topics in mathematics including critical thinking, problem solving, finances, descriptive statistics, mathematical models, and applications for real world situations.

MAT-201. Pre-Algebra (3)

Lec 54 Hrs

The arithmetic of signed numbers, fractions, one-step and two-step equations, decimals, ratio and proportion problems, percent problems, and unit conversions. This course is designed for those students who do not meet the entrance requirements for Math 121 Elementary Algebra. Not open to students who have completed Math 201L2.

MAT-201L1. Pre-Algebra Level I (1)

Lab 54 Hrs

The first course in a three-course sequence that is equivalent to MAT-201. The arithmetic of fractions, exponents, and the order of operations. This course is designed for students who do not meet the entrance requirements for MAT-121. Not open to students who have completed MAT-201, MAT-201L2, or MAT-201L3 with a grade of "C" or better.

MAT-201L2. Pre-Algebra Level 2 (1)

Prerequisite: MAT-201L1 with a grade of "C" or better.

Lab 54 Hrs

The second course in a three-course sequence that is equivalent to MAT-201. The arithmetic of integers and decimals, and the use of ratios, proportions, and percents. This course is designed for those students who do not meet the entrance requirements for MAT-121. Not open to students who have completed MAT-201.

MAT-201L3. Pre-Algebra Level 3 (1)

Prerequisite: MAT-201L2 with a grade of "C" or better.

Lab 54 Hrs

The third course in a three-course sequence that is equivalent to MAT-201. One-step and two-step equations, and calculations on basic geometrical figures. This course is designed for those students who do not meet the entrance requirements for MAT-121. Not open to students who have completed MAT-201.

COURSE LISTINGS

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-223. Lab for Intermediate Algebra (1)

Corequisite: MAT-123

Advisory: MAT-621

Pass/No Pass Only

Lab 54 Hrs

A review of the core prerequisite skills, competencies, and concepts for Intermediate Algebra. Intended as a corequisite support lab for students enrolling in Intermediate Algebra. Includes computational skills, the vocabulary of algebra, and basic algebra skills review. Provides support for students in solving and graphing linear equations and inequalities, systems of equations, factoring, polynomial and rational expressions, and solving quadratic and rational equations. The course emphasizes learning skills and attitudes of successful students.

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.

MAT-601. Math Academy for MAT 201 (0)

Pass/No Pass Only

A preparatory course in Hartnell College's Math Academy that is designed to prepare incoming students for Pre-Algebra (MAT 201).

MAT-621. Math Academy for MAT 121 (0)

Pass/No Pass Only

A preparatory course in Hartnell College's Math Academy that is designed to prepare incoming students for Elementary Algebra (MAT 121).

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.

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]

COURSE LISTINGS

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.

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-23.1. Hartnell Chorale-Renaissance/ Baroque Emphasis (1)

Prerequisite: Audition required.

Advisory: Intended for persons with previous choral experience.

Fall Only

Lab 54 Hrs

A choral group of mixed voices which rehearses and performs a wide range of musical literature with special emphasis on the study of techniques for performing Renaissance and Baroque music.

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

MUS-23.2. Hartnell Chorale-Classic/Romantic Emphasis (1)

Prerequisite: Audition required.

Advisory: Intended for persons with previous choral experience.

Spring Only

Lab 54 Hrs

A chorale group of mixed voices which rehearses and performs a wide range of musical literature with special emphasis on the study of techniques for performing Classic and Romantic music.

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

MUS-23.3. Hartnell Chorale-20th Century Emphasis (1)

Prerequisite: Audition required.

Advisory: Intended for persons with previous choral experience.

Fall Only

Lab 54 Hrs

A chorale group of mixed voices which rehearses and performs a wide range of musical literature with special emphasis on the study of techniques for performing 20th Century music.

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

MUS-23.4. Hartnell Chorale-20th Century "Pops" Emphasis (1)

Prerequisite: Audition required

Advisory: Members selected from the Hartnell Choir by audition.

Spring Only

Lab 54 Hrs

A chorale group of mixed voices which rehearses and performs a wide range of musical literature with special emphasis on the study of techniques for performing 20th Century "pops" music.

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

MUS-23.5. Hartnell Chorale-21st Century Emphasis (1)

Prerequisite: Audition required.

Advisory: Intended for persons with previous choral experience.

Fall Only

Lab 54 Hrs

A chorale group of mixed voices which rehearses and performs a wide range of musical literature with special emphasis on the study of techniques for performing 21st Century music.

[CSU] [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]

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-36. Jazz Combo (1)****Fall/Spring****Lab** 54 Hrs

Performance of jazz literature in small ensembles.

[CSU; UC]**MUS-37. Chamber Music Ensemble (1)***Advisory:* Ability to play a musical instrument.**Fall/Spring****Lab** 54 Hrs

Students will study and perform chamber music repertoire for strings, woodwinds, brass, percussion, and piano.

[CSU; UC]**MUS-42. Electronic Music (3)****Fall/Spring****Lec** 54 Hrs

Introduction to music composition using electronic media. Includes basic acoustics, fundamentals of audio recording, basics of digital audio, multi-track recording, WAV/MIDI file creation, and microphone selection/ placement. Creation of original "sound design" projects.

[CSU]**MUS-43. MIDI Sequencing (3)***Prerequisite:* MUS-42 with a grade of "C" or better.**Fall/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 and the piano keyboard.**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.**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.**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.**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. Not open to students who have completed both MUS-52B and MUS-53B with a "C" grade or better.

[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.

COURSE LISTINGS

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 comportment, 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)

Corequisite: NRN-42.3

Other: Currently enrolled in NRN-225, 226, 227, or 228.

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]

NRN-50.43. Supervised Nursing Skills Practice III (0.5)

Corequisite: NRN-43.3

Other: Currently enrolled in NRN-225, 226, 227, or 228.

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)**Corequisite:** NRN-44.1**Other:** Currently enrolled in NRN-225, 226, 227 or 228.**Pass/No Pass Only****Spring Only****Lab 27 Hrs**

Designed for registered nursing student 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.**Spring Only****Lec 72Hrs 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)**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)****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 and Psychological Conditions (8.0)****Prerequisite:** NRN-56 with a grade of "C" or better.**Fall Only****Lec 72 Hrs Lab 216Hrs**

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 54Hrs 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 comportment, 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]

COURSE LISTINGS

NRN-77. Role Transition and Care Coordination Seminar (1.0)

Spring Only

Lec 18Hrs

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: NRN-41

Advisory: Admissions to the Registered Nursing Program.

Pass/No Pass Only

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)

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 registered nursing program.

NRN-225. Success Strategies for 1st Semester RN Students (0.5)

Corequisite: NRN-41

Pass/No Pass Only

Fall Only

Lab 27 Hrs

Designed for first semester registered nursing students interested in reinforcing content presented in NRN-41 nursing courses. The course is individualized for each student based on identified learning needs. The values of curiosity and competency in nursing practice are emphasized.

NRN-226. Success Strategies for 2nd Semester RN Students (0.5)

Corequisite: NRN-42

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 NRN-42 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.

NRN-227. Success Strategies for 3rd Semester RN Students (0.5)

Corequisite: NRN-43

Pass/No Pass Only

Fall Only

Lab 27 Hrs

Designed for third semester registered nursing students interested in reinforcing content and skills presented in NRN-43 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)

Corequisite: NRN-44

Pass/No Pass Only

Spring Only

Lab 27 Hrs

Designed for fourth semester registered nursing students interested in reinforcing content presented in NRN-44 nursing courses with 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; Completion of CHM-60 (or CHM-22 or one year of high school chemistry), BIO-6 and MAT-121 are recommended.

Pass/No Pass Option

Lec 54 Hrs

Basic nutrition principles are presented, with an emphasis on nutrition needs throughout the life cycle. An in-depth description 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. Required for nursing and Family and Consumer Studies 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, Basic math computations (percentages and fractions).

Pass/No Pass Option

Lec 54 Hrs

Basic nutrition principles are presented with an emphasis on practical application. A broad overview of the relationship between diet and health, the importance of physical activity and which foods offer benefits for weight management. Required for LVN applicants; suggested for ECE majors and general public. Formerly FCS-22. Not open to students who have completed FCS-22 with a grade of "C" or better.

[CSU]

NURSING-VOCATIONAL

NVN-70. Growth and Development Across The Lifespan (3)

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

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-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: Admissions to the Vocational Nursing Program

Corequisite: NVN-130A

Spring Only

Lec 72 Hrs

Fundamental nursing concepts specific to the role of the vocational nurse. Not open to students who have completed NVN 119A with a grade of "C" or better.

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. Not open to students who have completed NVN 119B with a grade of "C" or better.

NVN-121. Vocational Nursing Theory II: Health Promotion and Maintenance Across the Lifespan (6.5)

Prerequisite: NVN-70, NUTR-51 and NVN-119 with a grade of "C" or better.

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. Not open to students who have completed both NVN 120A and NVN 121A with a grade of "C" or better.

COURSE LISTINGS

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. Not open to students who have completed all of the following: NVN 120B, NVN-120C, NVN-121B, and NVN-121C with a grade of "C" or better.

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. Not open to students who have completed both NVN-122A and NVN-123A with a grade of "C" or better.

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

Other: Students who have passed 122B, 122C, and 123C with a grade of "C" or better are not eligible for this course.

Spring Only

Lab 351 Hrs

Application of the nursing process for the coordination of care specific to the role of the vocational nurse. Utilization of leadership principles for completion of a leadership project in clinical setting. Not open to students who have completed all of the following: NVN-122B, NVN-122C, and NVN-123C with a grade of "C" or better.

NVN-130A. Basic Pharmacology A (1)

Prerequisite: Admission into the Vocational Nursing program

Corequisite: NVN-119

Spring Only

Lec 18 Hrs

Application of the nursing process for the study of pharmacology for vocational nurses. Emphasis is on medication concepts and medication safety. Topics included are pharmacokinetics, pharmacodynamics, the nursing process, medication administrations, and calculations required for 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

Application of the nursing process for the study of pharmacology for vocational nurses. Emphasis is on medications that enhance oxygenation and perfusion, and those medications utilized in treatment of diabetes. Additionally the course will cover pharmacodynamics and pharmacokinetics across the lifespan.

NVN-130C. Basic Pharmacology C (1)

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

Corequisite: NVN-123

Spring Only

Lec 18 Hrs

Application of the nursing process for the study of pharmacology for vocational nurses. Emphasis is on analgesics, gastrointestinal medications, and medications that affect the neurologic system.

NVN-210. 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.

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-226. Success Strategies for Vocational Nursing:
Health Promotion (0.5)**

Prerequisite: 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)**

Prerequisite: NVN-123 with a grade of "C" or better. Approval for readmission into the Vocational Nursing Program.

Pass/No Pass Only

Spring Only

Lab 27 Hrs

Designed for licensed vocational nursing students taking one or both of the last two modules 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 competency 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-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

Introduces students to the technical knowledge, skill sets, and creative applications of all photographic media. A survey of the historic development of photography is included. Students will provide their own cameras.

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

PHO-2. Beginning Black and White Photography (4)

Fall/Spring

Lec 54 Hrs; 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.

[CSU; UC]

PHO-3. Advanced Photography Lab (3)

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

Fall/Spring

Lec 36 Hrs; Lab 72 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 film as well as related issues in digital media.

[CSU]

COURSE LISTINGS

PHO-4. Portfolio Photography (3)

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

Fall/Spring

Lec 36 Hrs; **Lab** 72 Hrs

Emphasizes the development of a photographic portfolio in which the student establishes near professional level skills in their choice of photographic mediums.

[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. Formerly PE-1.243. Not open to students who have completed PE-1.243.

[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]

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-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]

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. Formerly PE-1.228. Not open to students who have completed PE-1.228 with a grade of "C" or better

[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. Formerly PE-1.204. Not open for credit to students who have completed PE-1.204 with a "C" or better.

[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. Formerly PE-1.197. Not open to students who have completed PE-1.197 with a grade of "C" or better.

[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. Formerly PE-1.186. Not open to students who have completed PE-1.186.

[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. Formerly PE-1.183. Not open to students who have completed PE-1.183.

[CSU; UC]**PEAC-56. Self-Defense/Martial Arts (1 - 1.5)****Lec 13.5 Hrs; Lab 40.5 Hrs**

Course will examine the various methods of self-defense/martial arts for men and women that will have an emphasis on the 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]

COURSE LISTINGS

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. Formerly PE-1.137. Not open to students who have completed PE-1.137.

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. Formerly PE-1.134. Not open for credit to students who have completed PE-1.134 with a grade of "C" or better.

[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. Formerly PE-1.131. Students may only take four of the following courses: PEAC-43, PEAC-46, PEAC-47, PEAC-49, PEAC-50 or PEAC-69.

[CSU; UC]

PEAC-70. Basketball (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. Formerly PE-1.110. Not open to students who have completed PE-1.110.

[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. Formerly PE-1.112. Not open to students who have completed PE-1.112 with a grade of "C" or better.

[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]

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. Adaptive 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. Formerly PE-3.513. May be taken up to two 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.

[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. Formerly PE-3.516. 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. Formerly PE-3.530. 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. Formerly PE-3.531. May be taken up to three 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. Formerly PE 1.146. 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. Formerly PE-3.510. May be taken up to three times.

[CSU; UC]

PEIN-27. Intercollegiate Swim and Dive (3)

Lab 162 Hrs

Advanced techniques and strategies of competitive intercollegiate swimming and diving competition. Approximately eleven intercollegiate meets are scheduled.

[CSU; UC]

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 4 times.

[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 4 times.

[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 4 times for credit.

[CSU; UC]

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 4 times.

[CSU; UC]

COURSE LISTINGS

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 4 times.

[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 4 times.

[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 4 times.

[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 4 times.

[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 4 times.

[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 4 times.

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]****PHY-4A. General Physics I/ Mechanics (4)***Prerequisite: MAT-3A with a grade of "C" or better.**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**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**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: MAT-123 with a grade of "C" or better.**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]

COURSE LISTINGS

PHY-32. Survey of Chemistry and Physics (4)

Prerequisite: MAT-121 with a grade of "C" or better.

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. Contemporary Governments Abroad (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, direct democracy, authoritarian regime, and theocracy. Studies focus on a country's critical junctures, political economy and development, governance and policy-making, representation and participation, and politics in transition. Contemporary issues in comparative government 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]**

COURSE LISTINGS

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]

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 (2)

Prerequisite: Admission to the Respiratory Care Practitioner Program

Corequisite: RCP-53

Fall Only

Lec 36 Hrs

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]

COURSE LISTINGS

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 Life Support Responsibilities (1.5)

Prerequisite: RCP-70 and RCP-72 with a grade of "C" or better.

Corequisite: RCP-83

Pass/No Pass Only

Spring Only

Lec 18 Hrs; Lab 27 Hrs

Neonatal resuscitation, pediatric advanced life support, and advanced cardiac life support will be explained and demonstrated. Upon completion of each specialty class, the student will apply knowledge and skills to written and practical demonstration tests created by the American Heart Association and the American Academy of Pediatrics. Successful completion of both criteria will result in certification in each specific category.

[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 (1.5)

Pass/No Pass Only

Fall Only

Lec 13.5 Hrs; **Lab** 41 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. Prerequisite: Admission to the Respiratory Care Practitioner Program

RCP-225. Success Strategies for 1st Semester RCP

Students (0.5)

Pass/No Pass Only

Fall Only

Lab 27 Hrs

Designed for first semester respiratory care practitioner students interested in reinforcing content presented in RCP 50 series courses. The course is individualized for each student based on identified learning needs. The value of competency based education in respiratory care practice is emphasized. OTHER: Admission to the RCP program or permission of the Director of RCP program following withdrawal from a failure in any RCP 50 series course (RCP 50, 51, 52, 53, 54)

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

Spring Only

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 Only

Lab 27 Hrs

Designed for respiratory care practitioner students interested in reinforcing content presented in RCP 70 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-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

Spring Only

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.

COURSE LISTINGS

SCIENCE

SCI-124. Internship Preparation for Science, Technology, Engineering and Mathematics (1)

Lab 54 Hrs

This course provides assistance for students to develop knowledge, skills, and attitudes for success in Science, Technology, Engineering and Mathematics (STEM) internship programs. Student preparation will focus on identification of and application for internships, abstract writing, poster creation, resume development, data analysis, project management, presentation delivery, and discipline specific skills. Prospective interns will work to develop attitudes that promote discussion, observation, teamwork, network building, and personal confidence.

SOCIAL JUSTICE

SJS-20. Introduction to Social Justice (3)

Advisory: ENG-101

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-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-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] [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 Latinxs 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 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 for Spanish Speakers (5)****Pass/No Pass Option****All Terms****Lec 90 Hrs**

A parallel SPA-1 course for Spanish speakers conducted totally in Spanish with emphasis on grammar and writing. An oral command of the Spanish language required. Not open to students who have completed SPA-1 or SPA-1X with a grade of "C" or better.

[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 6]**SPA-1X. Elementary Spanish for Chicano Students (5)****Pass/No Pass Option****Fall/Spring****Lec 90 Hrs**

A parallel SPA-1 and SPA-1S course designed for English-dominant Chicano students whose home languages include Spanish. This course will serve any student who has an auditory comprehension and a basic oral command of Spanish. Course conducted primarily in Spanish with emphasis on speaking, reading, writing, and grammar. Not open to students who have completed SPA-1 or SPA-1S with a grade of "C" or better.

[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 6]**[C-ID SPAN 100]****SPA-2. Elementary Spanish (5)****Prerequisite:** SPA-1 or SPA-1S or SPA-1X or two years of high school Spanish with a grade of "C" or higher 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]**

COURSE LISTINGS

SPA-2S. Elementary Spanish for Spanish Speakers (5)

Prerequisite: SPA-1 or SPA-1S or SPA-1X, or demonstration of language proficiency to level. All prerequisites must be completed with a grade of "C" or better.

Pass/No Pass Option

All Terms

Lec 90 Hrs

A parallel SPA-2 and SPA-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 SPA-2 or SPA-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 for Chicano Students (5)

Prerequisite: SPA-1 or SPA-1S or SPA-1X, or demonstration of language 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-2 and SPA-2S course designed for English dominant Chicano students whose home languages include Spanish. This course will serve any student whose first language is not Spanish, but who has an oral command of Spanish. This course is conducted primarily in Spanish with emphasis on speaking, reading, writing, and grammar. Not open to students who have completed SPA-2 or SPA-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 (5)

Prerequisite: SPA-2 or SPA-2S or SPA-2X, 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 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 for Spanish Speakers (5)

Prerequisite: SPA-2 or SPA-2S or SPA-2X, or demonstration of language 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-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 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****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 3]**[C-ID THTR 111]****TAC-2. Script Analysis (3)****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 3]**[C-ID THTR 114]****TAC-3. History of the Theatre (3)****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. 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, AREA3]**[C-ID THTR 113]****TAC-7. Chicano Theatre (3)****Advisory: ENG-1A****Pass/No Pass Option****Lec 54 Hrs**

Introduces students to Chicano Theatre of North and South America. The course examines the rich history and ongoing developments in the culture and identity of the Chicano through exploration of the historical and contemporary Chicano way of life illustrated in stage production. Not open to students who have completed ETH-7, Chicano Theatre with a grade of "C" or better.

[CSU; UC; CSU-GE AREA C1; IGETC AREA 3]**TAC-10. Acting I (3)****Lec 36 Hrs; Lab 54 Hrs**

Prepares a student to apply basic acting theory to performance and develops the skills of interpretation of drama 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****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]**TAC-15. Acting for the Camera (3)****Pass/No Pass Option****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-17. Devised Theatre Performance - Creation****Workshop (3)****Pass/No Pass Option****Lec 36 Hrs; Lab 54 Hrs**

Explores social needs and provides an overview of devising strategies in the theatre to address those needs. Students will explore the history of devised theatre, including happenings, creative collaboration, social-practice theatre/arts, and actor-generated theatre- and will study contemporary developments and applications of devised theatre methodologies. Students will develop skills and strategies for creating their own socially-conscious performance works. Course will culminate in an original, collaborative devised theatre production, with potential for service learning public presentation and with potential for entry in regional KACTF Devised Theatre competition. Not open to students who have completed THA-7 with a grade of "C" or

[CSU]

COURSE LISTINGS

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

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 D; IGETC, AREA 3, 4]

TAC-24. Introduction to World Theatre Production: Concept and Development (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 makeup 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******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******Lec 18 Hrs; Lab 108 Hrs***

Designed to teach the basic 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. Not open to students who have completed THA-40 with a grade of "C" or better.

[CSU; UC] [C-ID THTR 192]**TAC-50. Introduction to Film: History Up to the 1960'S (3)*****Prerequisite: Eligibility for ENG-101 or ESL-101.******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)*****Advisory: Eligibility for ENG-1A******Pass/No Pass Option******Lec 54 Hrs***

An introduction to the fundamentals of the craft of dramatic writing. Elements of plot construction and character development are emphasized through writing exercises, superior models of drama, and drafting and revision of an original script for stage or screen. Attending an out-of-class live drama performance and viewing an original screenplay may be required. Formerly THA-52. Not open to students who have completed THA-52 with a grade of "C" or better.

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

COURSE LISTINGS

TAC-54. Video Production Lab - Single Camera (3)

Prerequisite: Eligibility for ENG-1A

Advisory: TAC-30

Pass/No Pass Option

Lec 36 Hrs; Lab 54 Hrs

An introduction to the theory, terminology, and operation of single camera video production, including composition and editing techniques, camera operation, portable lighting, video recorder operation, audio control and basic editing. This course focuses on the aesthetics and fundamentals of scripting, producing, directing on location, post-production, and exhibition/distribution. Formerly THA-50. Not open to students who have completed THA-50 with a grade of "C" or better. Students will provide materials.

[CSU]

TAC-55. Directing (3)

Advisory: Eligibility for ENG-1A

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

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)

Advisory: ENG-1A

Pass/No Pass Option

Lec 54 Hrs

Basic introductory course in writing for film and electronic media. Emphasis on preparing scripts in proper formats, including fundamental technical, conceptual, and stylistic issues related to writing fiction and non-fiction scripts for informational and entertainment purposes in film and electronic media. Includes a writing evaluation component as a significant part of the course requirement.

[CSU; UC]

TAC-59. Beginning Audio Production (3)

Pass/No Pass Option

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-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

Lec 36 Hrs; Lab 54 Hrs

This course will involve students in theatrical production for young audiences. Participating in the production of a children's theatre performance, students will explore elements of design, technical theatre, performance, and stage management, as well as basic dramatic forms for the K-12 level student target audiences.

[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.

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.

COURSE LISTINGS

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 is 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-2. Basic Police Academy, Re-Qualification (3)

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. Proof of completion of POST basic course or modular level.

Pass/No Pass Only

Lec 4 Hrs; **Lab** 132 Hrs

This 136-hour course is certified by POST guidelines for Regular Basic course requalification requirements. Required for individuals who have successfully completed the Regular Basic Course (e.g. Basic Course, Basic Academy Modular, or the State Investigators Basic course) and who have not been hired nor experienced a three-year break in service. Also required for applicants who are seeking appointment or reappointment and who meet the minimum criteria as determined by POST to enter the course (out-of-state applicants).

[CSU]

COURSE LISTINGS

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]

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-34. Motorcycle Instructor (2)

This course is designed to develop instructors for both basic and in-service motorcycle training. Prepares students to become Motorcycle Course Instructors and to teach students to safely and effectively operate a police motorcycle while performing a variety of law enforcement duties. Prerequisite: Possession of valid driver's license with a motorcycle endorsement POST certification of completion from 80 hour Basic Motorcycle Course At least one year of current enforcement riding experience

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

COURSE LISTINGS

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 occupants 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 an 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.

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 24 Hrs

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: 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, 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-208. Campus Law Enforcement (1)

Pass/No Pass Only

Lec 8 Hrs Lab 32Hrs

Students will be provided knowledge of school police officers responsibilities in the educational environment, school structure and their legal authority both on and off duty.

JAJ-211. Public Safety Dispatch – Update (1-5)

Pass/No Pass Only

Lab 250Hrs

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

Lec8Hrs Lab 32Hrs

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, allocation of EMS resources, medico-legal considerations, 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 110Hrs; Lab 970Hrs

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.

COURSE LISTINGS

JAJ-216. Basic Fire Dispatcher (1 - 2)

Prerequisite: Commission on Police Officer Standards & Training (POST) certified basic public safety dispatch 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. 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 dispatch training that builds upon them. These minimum knowledge and skill levels are regarding: Familiarity with Communication Center Radio Equipment, Familiarity with Penal, Vehicle, Welfare & Institutions, Health & Safety, Business & Professions, Government Code, and Municipal / County code books, Familiarity with types of critical incidents, Ability to read maps and street guides, knowledge of telephone answering procedures and technology, knowledge of interview techniques and call types.

Pass/No Pass Only

This 80-hour course is designed to familiarize public safety dispatchers with field operations and provide them with the necessary skills to effectively receive and dispatch emergency calls for service.

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, Familiarity with Pursuit, Knowledge of First Aid, Familiarity with Defensive Tactics, Knowledge of Use of Force, Familiarity with Firearms, Familiarity with Officer Safety, 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

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 CCCC: 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 6Hrs 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-227. Livestock Theft/Rural Crime (1)

Prerequisite: JAJ 214: Basic Police Academy with a grade of "C" or better 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 evidence presentation, Knowledge of investigative report writing, Familiarity with hazardous materials, Knowledge of criminal law.

Lec 8 Hrs; Lab 32 Hrs

This course includes instruction on basic livestock theft investigation, breed and brand recognition, individual case studies, rural crime, criminal law, expert testimony, commodity enforcement, livestock killings and slaughters, and fish and game and enforcement.

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, 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

JF5-5. 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 wildland fires.

Lec 8 Hrs; Lab 32 Hrs

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]

COURSE LISTINGS

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. Rescue Systems I - Fundamentals of Heavy Rescue (1)

Lec 8 Hrs; Lab 32 Hrs

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-14 with a grade of "C" or better.

Lec 9 Hrs; Lab 71 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. Helitack 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 Helitack 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 126 Hrs; Lab 374 Hrs

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-40. California ROSS Dispatcher (0.5 - 1)

Advisory: Students must be qualified as (Fire) Support Dispatchers.

Pass/No Pass Only

Lec 04 Hrs; Lab 36 Hrs

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-41. Incident Command for High Rise Firefighting Operations (0.5)

Lec 4 Hrs; Lab 12 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 129 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-150 with a grade of "C" or better.

Pass/No Pass Only

Lec 8 Hrs; Lab 32 Hrs

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]

JFS-161. I-300 Intermediate Incident Command System (0.5)
Pass/No Pass Only
Lab 27 Hrs

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 8Hrs; Lab 16Hrs

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 I-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 4 Hrs; Lab 12 Hrs

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.

COURSE LISTINGS

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-208. Fire Officer Supervisor (2)

Prerequisite: Employment with a Fire Department as a full time first line officer.

Pass/No Pass Only

Lec 8 Hrs; Lab 72 Hrs

This is an 80-hour management program designed to teach supervision and management skills to current first-line officers in the fire service. Candidates are chosen from amongst eligible supervisors by department administrators.

[CSU]

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 23 Hrs

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.

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 fire fighting 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 wildland firefighting personal protective equipment, including fire shelter 3.Knowledge of fuel types, precautions, and suppression method(s) 4.Effective verbal communication used in fire fighting 5.Knowledge of the methods of heat transfer 6.Familiarity with wildland fire behavior conditions 7.Familiarity with wildland 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** 16 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.

COURSE LISTINGS

JFS-290. Intermediate Wildland Fire Behavior Determination FI-210 (1)

Prerequisite: Required Training: Introduction to Wildland Fire Behavior, S-190. Prerequisite Experience: Satisfactory performance at the wildland fire Firefighter Type 2 level.

This variable course is intended to meet S-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, S-190. Prerequisite Experience: Satisfactory performance at the wildland fire Firefighter Type 2 level.

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 well being of the rescuer; Knowledge of CPR/AED and First aid; Familiarity with mass casualty incidents; Familiarity with patient assessment; Familiarity with environmental emergencies; Familiarity with snowsport 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 bight, half hitch, Becket, and safety knots. Radio procedures .Effective verbal communication used in fire fighting.

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.