

DRLT 270 Advanced Construction Techniques**Units:** 1.5 **Hours:** 1.0 Lecture and 35.0 Laboratory

This course covers safety, materials, principles and theory of advanced construction techniques. Topics include following written and verbal directions, construction directly from blueprints, and research techniques. This course has the option of a letter grade or pass/no pass.

DRLT 290 Occupational Work Experience / Drywall - Lathing**Units:** 1.0 TO 4.0 **Hours:** 3.3 TO 16.7 Laboratory

Occupational work experience for students who have a job related to their major. A training plan is developed cooperatively between the employer, college and student. (P/NP grading) 75 hours per semester paid work = 1 unit. 60 hours non-paid (volunteer) work per semester = 1 unit. Student repetition is allowed per title 5 section 55253. Minimum 2.00 GPA. **REQUIRED:** Declared vocational major. **PREREQUISITE:** DRLT 200.

Early Childhood Education: see Child Development

Earth Science: see Geology, Geography

ECOLOGY**ECOL 1 Conservation of Natural Resources****Units:** 4.0 **Hours:** 3.0 Lecture and 3.0 Laboratory**Transferable:** CSU, UC; CSU-GE:B2, B3, IGETC:5B, 5C, GAV-GE:B2, B3

This course examines the fundamentals of ecology (the study of the relationships between organisms and their environment) with special emphasis on human effects on the environment. Topics of discussion will include ecosystem dynamics, resources, pollution, population growth, and the clash between economic and political policy and the environment. **ADVISORY:** Eligible for English 250 and English 260.

ECONOMICS**ECON 1 Principles of Macroeconomics****Units:** 3.0 **Hours:** 3.0 Lecture**Transferable:** CSU; CSU-GE:D, IGETC:4B, GAV-GE:D2

Introduction to the principles of macroeconomic analysis, economic institutions, and economic policy; supply and demand, determinants and distribution of output, income, and welfare through the market system; international trade and globalization. Measurement, determinants of, and policies relating to long-run economic growth, business cycle fluctuations, unemployment, and inflation. This course has the option of a letter grade or pass/no pass. (C-ID: ECON 202) **PREREQUISITE:** MATH 430 or MATH 205

ECON 2 Principles of Microeconomics**Units:** 3.0 **Hours:** 3.0 Lecture**Transferable:** CSU, UC; CSU-GE:D, IGETC:4B, GAV-GE:D2

Introduction to microeconomic principles, theory, and analysis. Topics include scarcity and resource allocation, specialization and exchange, and the determinants and distribution of output, income, and welfare through the market system, as well as elasticity, production and cost theory, and market failure caused by externalities and asymmetric information. Includes consumer choice and utility maximization, as well as profit maximization in various competitive settings. This course has the option of a letter grade or pass/no pass. (C-ID: ECON 201) **PREREQUISITE:** MATH 430 or MATH 205

ECON 11 Statistics for Business and Economics**Units:** 4.0 **Hours:** 4.0 Lecture**Transferable:** CSU, UC; CSU-GE:B4, IGETC:2A, GAV-GE:B4

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; statistical analysis including the interpretation of the relevance of the statistical findings. Applications using data from disciplines including business, social science, psychology, life science, health science, and education. Additional and more extensive case studies from business and economics, emphasizing statistical results that provide guidance for business decisions or suggest solutions to contemporary business and economic problems; use of larger data sets analyzed with computer software programs. (C-ID: MATH 110) **PREREQUISITE:** Math 233, or Math 233A and Math 233B, or Math 235, or Math 240, or Math 242 with a grade of "C" or better.

ECON 14 Personal Finance**Units:** 3.0 **Hours:** 3.0 Lecture**Transferable:** CSU

This course is designed to assist individuals to analyze their financial affairs for lifelong decision making. Elements and concepts of financial planning and decision making in the areas of budgeting, taxes, borrowing, money management, insurance, investments, retirement, and estate planning will be examined. This course is also listed as BUS 14. This course has the option of a letter grade or pass/no pass. **ADVISORY:** Math 400

**Education: see Child Development, Liberal Arts with
Elementary Education Emphasis**

ENGINEERING**ENGR 1 Graphical Communication and Design****Units:** 3.0 **Hours:** 2.0 Lecture and 3.0 Laboratory**Transferable:** CSU, UC

An introduction to the graphical and visual communication of the engineering design process. Topics will include the design process, visualization, free-hand sketching, instrument drawing, scales, orthographic projection, section views, auxiliary views, and dimensioning and tolerancing. Computer based drafting will be used in conjunction with traditional methods to highlight the strengths of multiple communication methodologies. **ADVISORY:** MATH 1A; may be concurrent.

ENGR 2 Statics**Units:** 3.0 **Hours:** 3.0 Lecture**Transferable:** CSU, UC

Vector treatment of two- and three-dimensional force systems acting on particles and engineering structures in equilibrium. Topics include forces, moments, couples, resultants, equilibrium conditions, trusses, centroids, moment of inertia, beams, shear and moment diagrams, cables, fluids and friction. **PREREQUISITE:** Mathematics 1A and Mathematics 1B and Physics 4A with a grade of 'C' or better.

ENGR 3 Electric Circuit Analysis**Units:** 4.0 **Hours:** 3.0 Lecture and 3.0 Laboratory**Transferable:** CSU, UC

An introduction to the theory of electric circuits. Topics include resistive circuits, voltage and current sources, network theorems, op-amp circuits, energy storage elements, RC, RL, and RLC circuits. **PREREQUISITE:** Mathematics 2C (may be taken concurrently) and Physics 4B with a grade of 'C' or better.

ENGR 4 Properties Of Materials

Units: 3.0 **Hours:** 3.0 Lecture
Transferable: CSU, UC

Basic principles of physics and chemistry are used to determine the quantitative relationships that describe the behavior of solids. Particular emphasis is placed upon the relationship between the structure and properties of crystalline solids. Applications consider control of properties as an engineering design variable. A term paper based upon review of the periodical technical literature is required. **PREREQUISITE:** Chemistry 1A and Physics 4A.

ENGR 5 Engineering Programming and Problem Solving

Units: 3.0 **Hours:** 2.0 Lecture and 3.0 Laboratory
Transferable: CSU, UC

An introduction to engineering problem solving using computer programming, numerical computing, and spreadsheets. Topics will include basic control structures, data types, input/output, an introduction to the design, implementation, testing and documentation of software, and the syntax and semantics of a modern programming language. Additional topics include matrix manipulation, curve plotting, finding solutions of ODEs, statistical analysis and presentation of data using available software. **PREREQUISITE:** Mathematics 1A with a grade of 'C' or better. May be taken concurrently.

ENGR 10A Introduction to Engineering I

Units: 2.0 **Hours:** 1.5 Lecture and 1.5 Laboratory
Transferable: CSU, UC

Engineering 10A introduces students to the engineering profession. Topics will include an introduction to the various engineering disciplines; the role of engineers and engineering in society; the curriculum requirements for the various engineering disciplines at different four-year institutions; academic success strategies; personal and professional development techniques; an introduction to the engineering design process; an introduction to engineering problem-solving methodologies; engineering ethics; communication skills; and working as a member of a team. **ADVISORY:** English 250.

ENGLISH**ENGL 1A Composition**

Units: 3.0 **Hours:** 3.0 Lecture
Transferable: CSU, UC; CSU-GE:A2, IGETC:1A, GAV-GE:A2

This is a writing course which emphasizes expository writing, argumentative writing, and critical reading of expository prose. It is meant to train students in clear thinking and reasoned support of ideas. Students will be given the opportunity to read models of good expository and argumentative prose and learn the techniques of good writing. These include choosing appropriate subjects, developing restricted, unified, and precise theses and presenting supporting evidence in a logical, lucid, and effective manner. To achieve this end, students write no fewer than six essays (a minimum of 6,000 words) and read at least five works, two of which are book length. (C-ID: ENGL 100) **PREREQUISITE:** English 250 and English 260 or equivalent with grade of 'C' or better or satisfactory score on the English placement examination.

ENGL 1B Composition and Literature

Units: 3.0 **Hours:** 3.0 Lecture
Transferable: CSU, UC; CSU-GE:C2, IGETC:3B, GAV-GE:C2, F

English 1B continues the work begun in 1A, but now the emphasis shifts to writing expository prose in conjunction with reading and analyzing imaginative literature. Students are to write as fledgling critics and use the text as a basis for other forms of reflection. The reading requirement includes short stories, poetry, drama, and at least two novels. Course work will also include fundamentals of research writing. Minimum 6,000 words of formal writing. (C-ID: ENGL 120) **PREREQUISITE:** English 1A with a grade of "C" or better.

ENGL 1C Critical Reasoning and Writing

Units: 3.0 **Hours:** 3.0 Lecture
Transferable: CSU, UC; CSU-GE:A3, IGETC:1B, GAV-GE:C2

This course is designed to develop critical thinking, reading, and writing skills beyond the level achieved in English 1A. The emphasis is on critical analysis of arguments and the development of the ability to integrate the principles of critical thinking into essay writing. Students will write a minimum of 6,000 words. (C-ID: ENGL 105) **PREREQUISITE:** English 1A with a grade of "C" or better.

ENGL 2B American Ethnic Literature

Units: 3.0 **Hours:** 3.0 Lecture
Transferable: CSU, UC; CSU-GE:C2, IGETC:3B, GAV-GE:C2, F

Students will examine the concept of ethnicity in the context of contemporary American multi-ethnic literature: Native American, Hispanic American, Black American, Asian American. Students will critique this literature using the accepted elements of literary criticism. They will read and analyze selections from each literature and explain their results in journals, oral presentations, a research project and examinations. **PREREQUISITE:** Eligible for English 1A.

ENGL 2C Introduction to Film and Fiction

Units: 3.0 **Hours:** 3.0 Lecture
Transferable: CSU, UC; CSU-GE:C2, IGETC:3B, GAV-GE:C2

This is a literature course in analysis of the novel and film as art forms. The student will read several novels, view the films based on the novels, and discuss the difference in techniques, both orally and in writing. **PREREQUISITE:** Eligible for English 1A.

ENGL 2E Introduction to Women Writers

Units: 3.0 **Hours:** 3.0 Lecture
Transferable: CSU, UC; CSU-GE:C2, IGETC:3B, GAV-GE:C2, F

This is a transfer literature class which examines the history of women as writers and distinguishes themes in women's literature using the tools of literary criticism. **PREREQUISITE:** Eligible for English 1A.

ENGL 2F Children's Literature

Units: 3.0 **Hours:** 3.0 Lecture
Transferable: CSU, UC; CSU-GE:C2, IGETC:3B, GAV-GE:C2, F

A survey of texts for elementary and intermediate grades, with a focus on literary analysis, criticism and evaluation. Study of historical backgrounds and development of genres of children's literature in a cross section of cultures. This course has the option of a letter grade or pass/no pass. (C-ID: ENGL 180) **PREREQUISITE:** English 1A.

ENGL 2J World Mythology

Units: 3.0 **Hours:** 3.0 Lecture
Transferable: CSU, UC; CSU-GE:C2, IGETC:3B, GAV-GE:C2, F

This course is a survey of myths from around the world, with an emphasis on literary analysis of the myths. The course covers the purposes and types of myths; the development of myths and mythological characters, the recurring elements of mythological structures, the influence of mythology on contemporary texts. **PREREQUISITE:** Eligible for English 1A.

ENGL 4A British Literature - 449 to 1798 A.D.

Units: 3.0 **Hours:** 3.0 Lecture
Transferable: CSU, UC; CSU-GE:C2, IGETC:3B, GAV-GE:C2

This course is a study of the masters of early British Literature from the years 449 - 1798 and the major literary trends within that time period. In this course, students will work to understand the language and concepts within early British poetry and prose, as well as explore the social and historical influences which inform this literature. (C-ID: ENGL 160) **PREREQUISITE:** Eligible for English 1A.

ENGL 4B British Literature - 1798 to Present

Units: 3.0 **Hours:** 3.0 Lecture
Transferable: CSU, UC; CSU-GE:C2, IGETC:3B, GAV-GE:C2, F

This course is a study of the masters of British Literature from 1798 to present, as well as an exploration of major literary trends during the Romantic, Victorian, Modern, and Contemporary Literary Eras. Note: this course need not be taken in sequence. **PREREQUISITE:** Eligible for English 1A, Composition.