

DM 117 Visual Effects - Motion Graphics

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

Study of the design of motion graphics and special effects used in digital video and film, web, multimedia, and interactive games. Includes video/graphics compositing techniques, 2D animation, basic 3D animation, and special effects commonly generated in digital post-production. Software such as Adobe After Effects or Apple's Motion will be used. This course has the option of a letter grade or pass/no pass. This course is also listed as CSIS 117. **ADVISORY:** DM/ART/CSIS 113 or DM/ART/CSIS 140 or DM/ART/CSIS 77 or THEA 17A or basic knowledge of digital video/film editing.

DM 140 Basic Digital Film / Video Production

Units: 1.0 **Hours:** 1.0 Lecture
Transferable: CSU, UC; GAV-GE:C1

An on-line self-paced course covering the basics of film/video production and post production (editing) using "easy to use" computer software such as Apple's iMovie. Beneficial for students who are producing a video/film project as a requirement for another college course, extra skills development, or for self interest. Completion of the associated class or personal project in DVD format using either personal video equipment or the equipment in the Digital Media Studio is required. This course has the option of a letter grade or pass/no pass. This course is also listed as CSIS 140.

Disability: see Voc Prep - Disability, Phys Ed - Adapted

Drama: see Mass Communications & TV, Theatre Arts

DRYWALL - LATHING APPRENTICE

DRLT 200 Introduction to the Trade

Units: 2.0 **Hours:** 36.0 Lecture

This course is an introduction to drywall/lathing apprenticeship, state and federal apprenticeship laws, apprenticeship record keeping, apprentice evaluation procedures, general safety, work ethic, sexual harassment issues, and basic tools of the trade.

DRLT 202 Basic Applications

Units: 1.5 **Hours:** 4.0 Lecture and 32.0 Laboratory

This course is an introduction to basic gypsum wall covering and ceiling applications. Topics include knot recognition and application to rigging on construction job-sites.

DRLT 205 Mathematics Review

Units: 2.0 **Hours:** 32.0 Lecture and 4.0 Laboratory

This course covers mathematics applications to drywall and lathing trades with specific focus on mathematical processes related to construction. Basic topics include whole numbers, fractions, decimal fractions, ratios, proportions, percentages, areas and volumes. This course has the option of a letter grade or pass/no pass.

DRLT 210 Residential Metal Stud Framing

Units: 1.5 **Hours:** 4.0 Lecture and 32.0 Laboratory

This course covers basic residential metal framing. It includes framing of floors, walls, doors, windows, roofs, trusses and stairs. This course has the option of a letter grade or pass/no pass.

DRLT 212 Doors, Frames, Hardware and Windows

Units: 1.5 **Hours:** 4.0 Lecture and 32.0 Laboratory

This course covers doors, windows, door and window framing, and exterior wall covering systems. Topics include an introduction to blueprints and building codes. This course has the option of a letter grade or pass/no pass.

DRLT 220 Blueprint Reading I

Units: 1.5 **Hours:** 21.0 Lecture and 15.0 Laboratory

This course covers job specifications, blueprint structure and basic blueprint reading and interpretation. Topics include an introduction to construction drawings and sketching. This course has the option of a letter grade or pass/no pass.

DRLT 221 Blueprint Reading II

Units: 1.5 **Hours:** 12.0 Lecture and 24.0 Laboratory

This course is a continuation of Blueprint Reading I (DRLT 200). Topics include interpretation, problem solving, correlating specifications, prints, addenda, notes, sections and mathematics used with blueprints. This course has the option of a letter grade or pass/no pass.

DRLT 222 Applied Blueprint Technology

Units: 1.5 **Hours:** 12.0 Lecture and 24.0 Laboratory

This course is a continuation of Blueprint Reading II (DRLT 221). Topics include take-offs, material estimates, material requisition, job costs and layout from blueprints. This course has the option of a letter grade or pass/no pass.

DRLT 230 Welding Heavy Gauge

Units: 1.5 **Hours:** 6.0 Lecture and 30.0 Laboratory

This course covers welding and welding concepts for construction job sites. Topics include welding safety, basic welding terms, definitions, positions, and cutting operations. This course has the option of a letter grade or pass/no pass.

DRLT 231 Welding Light Gauge

Units: 1.5 **Hours:** 6.0 Lecture and 30.0 Laboratory

This course is a continuation of Welding I (DRLT 230). Topics include welding safety, concepts, process, symbols, and certification performance. This course has the option of a letter grade or pass/no pass.

DRLT 240 Commercial Framing Systems and Fire Control

Units: 1.5 **Hours:** 6.0 Lecture and 30.0 Laboratory

This course covers safety, principles, theory, and application of advanced fire control systems. Topics include principles and applications of partitions and metal framing. This course has the option of a letter grade or pass/no pass.

DRLT 242 Exterior Systems and Trims

Units: 1.5 **Hours:** 6.0 Lecture and 30.0 Laboratory

This course covers safety, principles, and application of exterior wall framing, coverings, and trims. This course has the option of a letter grade or pass/no pass.

DRLT 250 Interior Metal Lath Systems

Units: 1.5 **Hours:** 6.0 Lecture and 30.0 Laboratory

This course covers materials, principles, theory, and application of lath and plaster interior hollow walls and partitions. Topics include principles, and application of sound control systems and an introduction to mathematics and layout for building arches. This course has the option of a letter grade or pass/no pass.

DRLT 260 Shaft Protection and Ceiling Systems

Units: 1.5 **Hours:** 6.0 Lecture and 30.0 Laboratory

This course covers safety, materials, principles, theory, and installation of ceiling systems, demountable partitions, and shaft systems. This course has the option of a letter grade or pass/no pass.

DRLT 262 Arches, Furring and Advance Systems

Units: 1.5 **Hours:** 6.0 Lecture and 30.0 Laboratory

This course covers safety, materials, principles, theory, and installation of furring, arch systems, and fire retardant materials. This course has the option of a letter grade or pass/no pass.

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.