DRLT 270  Advanced Construction Techniques
Units: 4.5  Hours: 21.0 Lecture and 18.0 Laboratory
Transferable: No
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: 5.0 TO 20.0 Laboratory
Transferable: No
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. May be taken for a maximum total of 16 units. Minimum 2.00 GPA. REQUIRED: Declared vocational major.

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; CAN:ENGR2
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; CAN:ENGR8
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; CAN:ENGR12
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; CAN:ENGR4
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; CAN:CSCI4
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.