

This course is an intensive study of 3D computer graphics and computer-assisted design and drafting (CADD) utilizing the latest release of SolidWorks Software. This course benefits all students in areas of study related to engineering, drafting, design, and computer graphics. Students produce 3D, parametric, computer-generated virtual models incorporating mechanical design elements. The course emphasizes the technological skills necessary to function as a design professional in order to apply 3D design graphics technology to the specific disciplines of mechanical engineering, machine drafting and design, manufacturing, animation, modeling, and illustration. Students are introduced to a variety of ways to produce prototype models directly from CADD-generated solid geometry. Students will also take an industry standard test, Certified SolidWorks Associate (CSWA), to check for proficiency and receive certification upon passing.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**ENGT 280**  
**Advanced MicroStation for CADD & BIM Applications (Same as ARCH 280)**

*Prerequisite:* ENGT 170 or appropriate placement; ENGT 103 or two years of high school drafting  
*Transfer to:* CSU  
 This course is for students pursuing advanced study in MicroStation 3D parametric CADD (Computer Aided Design and Drafting) and the BIM (Building Information Modeling) approach to building design using Bentley Architecture digital modeling applications. Students apply previously learned drafting conventions to produce 2D and 3D CADD- and BIM-generated mechanical and architectural drawings and virtual design models. This course benefits all students studying architecture, civil engineering of all types, drafting, design and computer graphics. Emphasis is placed on the high technology skills necessary to function as a designer or CADD drafter.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**ENGT 290**  
**Cooperative Work Experience/Internship for Drafting Related Fields**

*Advisory:* ENGL 035 or ENLA 100 or appropriate placement; READ 041 or appropriate placement  
*Transfer to:* CSU  
 This course supports and reinforces on-the-job training in business and industrial establishments under supervision of a college instructor,

and is facilitated by the use of learning objectives. Students work in a skilled or professional-level assignment in their area of vocational interest and meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is in drafting-related fields and who have completed or enrolled in the appropriate coursework. Instructor approval is needed to enroll in the course. Contact the CWE office regarding re-enrollment procedures.

**Student Unpaid Internship:**  
 1 Unit/90 hours; 2 Units/180 hours;  
 3 Units/270 hours; 4 Units/360 hours  
**Student Paid Internship:**  
 1 Unit/75 hours; 2 Units/150 hours;  
 3 Units/225 hours; 4 Units/300 hours.  
**1 to 4 Units**  
**3 Lecture hours**  
**60 to 300 Other hours**

**ENGT 299**  
**Directed Study in Engineering Design Drafting**

*Prerequisite:* 2.5 overall grade point average and a 3.0 grade point average in the discipline of study being requested, or course an exception from the instructor  
*Advisory:* ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement  
*Transfer to:* CSU

This course provides an opportunity for students to expand their studies in Engineering Design Drafting beyond the classroom by completing a project or an assignment arranged by an agreement between the student and instructor. Students are required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students may take a maximum of 3 units of directed study within a discipline and 9 units college wide.

**1 to 3 Units**  
**54 to 162 Lab hours**

## ENGLISH

### Division of Communications & Languages

**ENGL 010S**  
**English Composition Support**

*Corequisite:* ENGL 101  
*Advisory:* ENGL 020 or ENLA 034 or appropriate placement  
 This is a co-requisite support course for English 101 composition students which assists students who may benefit from supplemental support so that they can succeed in a college-level English composition course. Students will be afforded additional

practice in all phases of composition, grammar, and mechanics.

**1 Units**  
**18 Lecture hours**

**ENGL 010SP**  
**English Composition Support Plus**

*Corequisite:* ENGL 101  
*Advisory:* READ 022 or appropriate placement  
 This is a co-requisite support course for English 101 composition students which assists students who may benefit from additional support so that they can succeed in a college-level English composition course. Students will be afforded additional practice in all phases of composition, grammar, and mechanics.

**2 Units**  
**36 Lecture hours**

**ENGL 020**  
**College Writing Skills**

This course is designed to provide students with the skills needed for writing in many college courses. The course covers the basics of college English skills, such as thesis statements, grammar, paper organization, and formatting. This course is intended to prepare students entering college who are planning to take any level of English or English as a new language (ENLA). This is a non-degree applicable course offered on a pass/no pass basis.

**0.5 - 1 Units**  
**9 - Lecture hours**

**ENGL 035**  
**Introduction to College Composition**

*Prerequisite:* ENGL 010 or ENLA 034 or appropriate placement  
*Corequisite:* ENGL 010SW  
 ENGL 035, a foundation-level composition course, prepares students to succeed in transfer-level English courses by developing and reinforcing essential college writing skills. Instruction on utilizing critical reading, thinking, and reasoning skills will be the focus of selected college-level readings. Through the use of engaging thematic units, students will practice effective written communication through a process-centered approach, including pre-writing, drafting, and multiple revisions of their work during the submission process. Throughout the semester, emphasis will be placed on active learning, skill development, as well as tools for college and life success. This is a non-degree credit course and is offered on a pass/no pass basis. In addition to ENGL 035, students will concurrently enroll in the ENGL 010SW Writing Workshop where they will take part in workshop-specific assignments and additional individualized activities that complement and strengthen their work in ENGL