



ARTICULATION TEMPLATE

<p>Cerritos College General Course Title: ENGT AutoCAD (4 Units) Cerritos College 11110 Alondra Blvd. Norwalk, CA 90650</p>	
<p>Paramount High School Senior Campus Course: Computer Assisted Drafting and Design Paramount High School Senior Campus 14429 Downey Ave. Paramount, CA 90723</p>	
<p>General Course Description: This course focuses on AutoCAD software for students with previous manual drafting knowledge. It includes drawing preparations in 2-D and 3-D, modify, blocks, and tools. It will prepare students to operate the systems and understand the applications of computer graphics utilizing industry standards. Students will learn to use an interactive computer graphics system to prepare drawings on personal computers. Drawings will be stored and retrieved from digital storage, enabling students to produce commercial quality copies using computer-driven plotter and printer. Transfer Credit: CSU; UC</p>	
<p>College Prerequisite(s): ENGT 116 and ENGT 131 or equivalent with a grade of Pass or "C" or higher, or appropriate work experience</p>	<p>HS/ROCP Prerequisite(s): None</p>
<p>Advisories/Recommendations:</p>	
<p>Course Content:</p> <ul style="list-style-type: none"> • Design process • Career awareness • Industry standards • Tools, equipment, and materials used in design drafting • Computer Aided Design software and hardware • Technical sketching – pictorial drawing, orthographic views, and lettering • Geometric construction using CAD • Pictorial drawing – isometric/oblique/perspective (Tech Sketching and 3D CAD) • Orthographic projection including section and primary auxiliary views (Extraction from 3D CAD if possible; if not possible then 2D CAD) • Dimensioning of orthographic and pictorial drawings using common measurement systems (Tech Sketching and 3D CAD if possible; if not then dimensioning 2D CAD drawings) • Portfolio 	

Competencies and Skill Requirements (Use additional pages as necessary.) Where appropriate, please incorporate standards being used (e.g. CTE standards).

At the conclusion of this course, the student should be able to:

- Define various careers available and terminology used in the design drafting field.
- Identify and apply tools and materials used in design drafting.
- Demonstrate the use of Computer Aided Design (CAD) software and hardware to prepare 2D and/or 3D technical drawings.
- Define and apply the design process.
- Create drawings using appropriate industry standards.
- Demonstrate the use of various measurement systems and common scales.
- Use the orthographic projection process to create multiview drawings.
- Use basic methods of geometric construction in the development of design drawings.
- Create pictorial drawings from information in a Multiview drawing.
- Demonstrate the use of technical sketching and lettering to produce proportional 2D and 3D graphical solutions.
- Apply basic dimensioning practices per industry standards and conventions.
- Create sectional and primary auxiliary views to clarify design intent.
- Develop a portfolio to organize and display evidence of their work.

Measurement Methods (include any industry certification or licensure):

- Quizzes and tests
- Project(s)
- Portfolio
- Classroom Discussion
- Reports
- Skill Demonstration
- Technical Presentations

Textbooks or Other Support Materials (including Software):

- Klicklighter, Clois and Walter C Brown. Drafting and Design: Engineering Drawing Using Manual and CAD Techniques, 7th Edition. Goodheart Willcox, 2008.
- AutoCAD

Procedures for Course Articulation:

Cerritos College credit for the articulated course listed above may be received when the following criteria are met:

1. The student has completed the articulated course listed above with a "B" grade or higher in *Computer Assisted Drafting and Design*.
2. The student must enroll at Cerritos College within two (2) years from the semester date in which the course was completed.
3. The student will present verification of successful completion of the articulated course by presenting a *Cerritos College Petition for Credit by Examination* to a Cerritos College Engineering Technology Instructor. The *Cerritos College Petition for Credit by Examination* should be completed and signed by the Instructor, Dean, and Admissions & Records.
4. No more than 12 units of credit may be accepted for credit by examination.

This Agreement will be reviewed annually and will remain in effect until cancelled by either party giving 30 days written notice.

High School/ROP District Signatures

Cerritos College Signatures

[Signature] 1/26/17
Faculty/Department Chair Date

[Signature] 11/15/16
Instructor/Division Chair Date

[Signature] 1/26/17
Principal Date

[Signature] 11/15/16
Dean of Instruction Date

[Signature] 2/7/17
Superintendent Date

[Signature] 11/22/16
Vice President Date

Reviewed by: Raquel Lizarraga Date

DWG Recommendations:

The DWG for Design Drafting recognizes that some schools do not use CAD at an intro level, some use CAD only, and some use a blended approach. Therefore, a second Design Drafting template exists to address drafting outcomes using manual drafting and sketching techniques.

DWG Facilitator's Signature:

Date:

[Office use only.]

[Office use only.]

TOPs Code:

Internal Tracking Number:

Date Accepted by Steering Committee: