



DIVISION OF CAREER & TECHNICAL EDUCATION

CIVIL DESIGN TECHNOLOGY

ASSOCIATE OF SCIENCE DEGREE

The following Civil Design Technology curriculum will lead to the Associate of Science Degree and prepare students for employment in the field of Civil Engineering as a technician with the potential for more rapid advancement to positions of greater responsibility in surveying and civil construction. Completion of this program is not designed to fulfill the requirements for transfer to a university in Civil Engineering. For Baccalaureate or advanced degrees, students will need to complete additional courses in mathematics and physics. Please see a counselor for requirements.

To acquire the **Associate of Science Degree in Civil Design Technology**, students must complete the required major courses below with a grade of "C" or better along with one of the following:

- o RHC GE and Proficiency requirements
- o CSU GE (California State University General Education Breadth)
- o IGETC (Intersegmental General Education Transfer Curriculum)

Required Courses		Units	N	IP	C
ARCH 115	Introduction to Residential Architecture: Drawing and Design	4			
CIV 140	Civil Drafting Fundamentals	3			
ENGT 101	Introduction to Technical Drawing & Graphics	3			
ENGT 105	Architectural & Technical Freehand Sketching	2			
ENGT 122	Engineering Design Graphics	4			
ENGT 150	AutoCAD for Basic CADD Applications	4			
Or ENGT 170	MicroStation for Basic CADD Applications				
Then select one field of specialization for an additional 13 to 16 units					
Structures					
CIV 142	Introduction to Surveying and GPS	4			
ARCH 260	*Advanced Architecture Using Revit and 3D Software	4			
ARCH 125	*Residential Architecture and Detailing	3 or 4			
Or ARCH 225	*Commercial Wood and Masonry Design and Construction				
ARCH 261	*Revit for Advanced BIM Architectural, Structural and MEP Applications	4			
Or ARCH 280	*Advanced MicroStation for CADD & BIM Applications				
Total Units		35-36			

<u>Piping</u>				
ENGT 265 Pressure Piping Design	3			
ENGT 266 Pressure Piping Applications	3			
ARCH 110 Construction Document Reading and Estimating	3			
ARCH 260 *Advanced Architecture Using Revit and 3D Software Or ARCH 280 *Advanced MicroStation for CADD & BIM Applications	4			
Total Units	33			
<u>Transportation</u>				
LOG 120 Transportation Management	3			
GIS 120 Introduction to Geographic Information Systems And Spatial Analysis	4			
CIV 142 Introduction to Land Surveying and GPS	4			
CIV 241 *Civil Engineering Drafting and Design	3			
Total Units	34			
<u>Land Development</u>				
CIV 142 Introduction to Surveying and GPS	4			
CIV 143 *Applications to Surveying and GPS	4			
CIV 241 *Civil Engineering Drafting and Design	3			
CIV 245 *Civil Engineering Design and Modeling Or GIS 120 Introduction to Geographic Information Systems and Spatial Analysis	3 or 4			
Total Units	34-35			
<u>Environmental</u>				
CIV 142 Introduction to Land Surveying and GPS	4			
GIS 120 Introduction to Geographic Information Systems And Spatial Analysis	4			
GIS 230 *Geographic Information Systems (GIS) in Environmental Technology	3			
ET 280 Green Building Design Principles	3			
Total Units	34			
Total major units needed for the Associate of Science	33-36			
Units Completed				
*Prerequisite/Corequisite				