

A.S. IN DESIGN AND ENGINEERING DRAWING TECHNOLOGY

The Design and Engineering Drawing Technology Major concentrates on visualizing architecture, engineering, drafting, entertainment, animation and computer-generated imagery (CGI). It is a creative, technical practice and discipline with a balance of a design and technical courses providing students with a diverse foundation of knowledge in the fields above. Emphasis is on proper and efficient methods of engineering drawing, digital production, sketching, story boarding, 3D digital models, animations and multifaceted presentations.

This degree prepares the student for entry level opportunities as a CAD (computer-aided design) / design person or animation modeler.

Formerly known as "Design and Drafting Technology" or "Drafting and Design Technology."

Learning Outcomes

A.S. Degree Level Student Learning Outcomes

Students completing the Design and Engineering Drawing Technology A.S. Degree will:

1. Describe effective engineering drawing, computer-generated imagery (CGI) and visualization techniques including graphic communication of design and technical drawings, orientation of design and technical drawings, and the decision making process for design and technical drawings.
2. Demonstrate the ability to use technology to prepare engineering drawing, architectural, computer-generated imagery (CGI), computer-aided drawings (CAD), and multimedia presentations. Estimate time, material, labor and equipment required for this expertise.
3. Demonstrate planning techniques and administration of engineering drawing, architectural, computer-generated imagery (CGI) and document control for design and technical working drawings.

Requirements

This degree requires meeting the Citrus College General Education and proficiency requirements combined with successful completion (grades of "C" and above) of the following major requirements:

Code	Title	Units
Required courses:		
ARCH 100	Introduction to Architecture and Environmental Design Foundations	3
ARCH 102 or DRAF 102	Visual Communication	2.5
ARCH 200	Portfolio Preparation	3

Code	Title	Units
DRAF 160	Foundation Digital Design Tools - Intermediate Computer Aided Design (CAD)	3
DRAF 161	Advanced Computer Aided Design (CAD and Design Tools)	3
DRAF 190	Advanced Digital Design Tools	3
DRAF 290	Introduction to Maya Practices	3
Total Units		20.5

Curriculum Map

2-Year Curriculum Map Example

This map represents one possible pathway through the program and is only for reference.

*It is highly recommended that you make an appointment (<https://www.citruscollege.edu/stdntsrv/counsel/Pages/ApptSchedule.aspx>) to create a customized education plan that fits your needs.

Note: Co-requisite MATH course (2 units) and/or substitute ENGL 101E (5 units) may be needed based on placement.

Course	Title	Units
Fall Term 1		
ARCH 100	Introduction to Architecture and Environmental Design Foundations	3
DRAF 101	Beginning Computer Aided Design (CAD)	3
ARCH 110	Introduction to Design Fundamentals and Communication	4
MATH 144 or MATH 165 or MATH 165H or MATH 175 or MATH 180	Technical Mathematics or Introductory Statistics or Introductory Statistics - Honors or Pre-Calculus or Calculus for Business and Social Sciences	4
Units		14
Winter Term 1		
ENGL 101 or ENGL 101H	Reading and Composition or Reading and Composition - Honors	4
Units		4
Spring Term 1		
ARCH 111	Foundation Design	4
DRAF 161	Advanced Computer Aided Design (CAD and Design Tools)	3
SPCH 103	Argumentation and Debate	3
ARCH 102 or DRAF 102	Visual Communication or Visual Communication	2.5
Units		12.5
Summer Term 1		
PHYS 110 or PHYS 110H or PHYS 111 or PHYS 111H	Physics in Everyday Life or Physics in Everyday Life - Honors or College Physics A or College Physics A - Honors	4
Units		4
Fall Term 2		
DRAF 160	Foundation Digital Design Tools - Intermediate Computer Aided Design (CAD)	3
ARCH 250	History of Architecture: Prehistory to Mannerism	3
ARCH 200	Portfolio Preparation	3

Course	Title	Units
DRAF 190	Advanced Digital Design Tools	3
Units		12
Winter Term 2		
HIST 107	History of the United States before 1877	3
or HIST 107H	or History of the United States before 1877 - Honors	
or HIST 108	or History of the United States since 1877	
or HIST 108H	or History of the United States since 1877 - Honors	
or HIST 160	or History of Women in the United States	
Units		3
Spring Term 2		
DRAF 290	Introduction to Maya Practices	3
ARCH 251	History of Architecture: Baroque to the Present Day	3
KIN 170	Fitness for Life	3
or KIN 171	or Health and Wellness	
or KIN 171H	or Health and Wellness - Honors	
or KIN 173	or Introduction to Nutrition	
ETHN 101	Introduction to Ethnic Studies	3
or ETHN 116	or Introduction to Chicano/Latino Studies	
Units		12
Total Units		61.5

Note: Course selections may affect total unit value.

Career Information

Career Opportunities

There are a variety of careers you can do with this major.

To explore more about this major, schedule an appointment (<https://www.citruscollege.edu/stdntsrvc/ctcenter/Pages/ApptSchedule.aspx>) with a career counselor.