

## DRAFTING TECHNOLOGY (DT)

### About the program

The Drafting and 3D Modeling program offers students the opportunity to learn skills required by today's high tech engineering, architecture, and manufacturing industries. The Drafting and 3D Modeling AS degree is accredited by the Association for Technology, Management and Applied Engineering (ATMAE).

### Degrees/Certificates within this Program:

- Associate of Science Degree, Drafting & 3D Modeling
- Certificate of Achievement, Drafting & 3D Modeling

### Similar Degrees/Certificates offered at CR:

- Associate of Science Degree, Construction Technology
- Certificate of Achievement, Residential Construction II
- Associate of Science Degree, Forestry and Natural Resources Technology, Forest Technology
- Certificate of Achievement, Forest Technology
- Certificate of Recognition, Geomatics
- Associate of Science Degree, CADD/CAM Design and Manufacturing
- Certificate of Achievement, CADD/CAM Design and Manufacturing
- Associate of Science Degree, Manufacturing Technology
- Certificate of Achievement, Manufacturing Technology

### Career Opportunities

*Employment opportunities in this field include:*

- Drafter
- Design Technician
- Engineering Assistant
- Cartographer
- 3D Modeler
- Estimator
- Technical sales

### For more information

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[www.redwoods.edu/Drafting/](http://www.redwoods.edu/Drafting/)
- Career & Technical Division, 707-476-4341
- Counseling & Advising, 707-476-4150

### About this Degree

The Drafting and 3D Modeling degree offers students the opportunity to learn skills required by today's high tech engineering, architecture, and manufacturing industries. Graduates are prepared for entry level jobs such as: drafter, CAD technician, designer, engineering assistant, 3D modeler, and 3D printing technician. Graduates will be prepared to solve basic design problems using 2D and 3D CAD, provide engineering support, develop static and animated presentations, and operate 3D printers. In addition, graduates may continue on to university programs related to design, industrial technology, engineering, manufacturing, and architecture. The Drafting and 3D Modeling A.S. Degree is accredited by the Association for Technology, Management, and Applied Engineering (ATMAE).

### Suggested Program Sequence

#### Fall Start

Semester 1 DT 23 or ENGR 23, CIS 1

Semester 2 DT 25, DT 71

Semester 3 DT 50, DT 73, DT 80

Semester 4 DT 60, IT 152

*Plus 12 units from Restricted Electives*

#### Spring Start

Semester 1 DT 23 or ENGR 23, CIS 1

Semester 2 DT 50, DT 80

Semester 3 DT 25, DT 60, DT 71, IT 152

Semester 4 DT 73

*Plus 12 units from Restricted Electives*

### Associate of Science Degree, Drafting & 3D Modeling

	Units
<b>General Education Requirements</b>	<b>18.0</b>
<b>Program Requirements</b>	
<b>Core Courses</b>	<b>32.0</b>
ART 17* Basic Drawing	3.0
BUS 10* Intro to Business	3.0
DT 23 Engineering Design Graphics or ENGR 23 Engineering Design Graphics	3.0
DT 25 Computer Aided Design and Drafting	4.0
DT 50 3D CAD Applications	4.0
DT 60 Mechanical Design Drafting	4.0
DT 71 Architectural Drafting Fundamentals	3.0
DT 73 Architectural Drafting - Residential Design	3.0
DT 80 Modeling and Animation	4.0
CIS 1* Computer Information Systems	4.0
IT 152 Technical Computer Applications Lab	1.0
<b>Restricted Electives</b> <i>(Choose 12 units from the list below)</i>	<b>12.0</b>
CIS 30 Networking Essentials	4.0
CT 50 Construction Estimating	4.0
CT 80 Carpentry Theory I	3.0
CT 81 Carpentry Theory II	3.0
DT 42 Cooperative Education Work Experience in Drafting Technology	1.0-3.0
FNR 52 Intro to Surveying	4.0
FNR 65 Intro to GIS	3.0
IT 60A Basic Manufacturing Blueprint Reading	3.0
IT 60B Machine Parts Blueprint Reading	3.0
MT 10 Fundamentals of Manufacturing Technology	3.0
<b>Unrestricted Electives - as needed to complete 60 units total</b>	
<b>Total Units</b>	<b>60.0</b>

*\*Course may be double counted toward General Education.*

### Program Learning Outcomes

- Produce industry standard design documentation using Computer Aided Drafting (CAD) and technical sketching with an emphasis on architectural, civil design, and mechanical applications.
- Develop design concepts, renderings, and models with consideration for aesthetics, cost, methods of construction and/or manufacturing, and common industrial practices.
- Use common business communication tools such as the internet, MS Office, written reports, and oral presentations.
- Analyze/interpret/present technological concepts, creative expression, resources, & data.