

DRAFTING TECHNOLOGY - ASSOCIATE OF APPLIED SCIENCE DEGREE (AAS)

Explore More About This Program: <https://cwi.edu/program/drafting-technology>

Degree Quick Facts

- **Instructional School:** Industry, Engineering, and Trades
- **Department:** Manufacturing and Welding
- **Program Code:** DRFT.AAS
- **Program Type:** Career and Technical Education
- **Available Fully Online:** No
- **Eligible for Federal Financial Aid:** Yes

NOTE: Courses required for this program *may* have an additional fee; more information can be found on the [Special Course Fees](#) web page.

Degree Requirements

Course	Course Title	Min Credits
General Education Requirements		
GEM 1 - Written Communication course		3
GEM 2 - Oral Communication course		3
Select one of the following (GEM 3):		3-5
MATH 123	Math in Modern Society	
MATH 143	College Algebra	
or MATH 143P	College Algebra	
MATH 147	College Algebra and Trigonometry	
MATH 153	Statistical Reasoning	
MATH 160	Survey of Calculus	
MATH 170	Calculus I	
PSYC 140	Human Relations for Career and Personal Success (GEM 6)	3
GE Elective course		3
Major Requirements		
DRFT 100	Construction Materials and Processes	3
DRFT 114	Drafting Basics	3
DRFT 118	Introduction to Revit	3
DRFT 119	Introduction to AutoCAD	4
DRFT 120	Residential Architecture	4
DRFT 123	Introduction to Solidworks	3
DRFT 139	Applied Problem Solving for Drafting	3
DRFT 190	Job Skills for Drafting	1
DRFT 211	Civil Drafting and Math	4
DRFT 212	Structural and HVAC System Drafting	5
DRFT 213	Machine Drafting and Design	4
DRFT 217	Commercial Architecture	4
DRFT 218	Electrical and Plumbing Systems Drafting	4
DRFT 239	Advanced Revit Techniques	3
DRFT 290	Drafting Technology Capstone	1
Minimum Credit Hours Required		64

Degree Plan: Fall Start

The course sequence listed below is strongly recommended in order to complete your program requirements. Many Career and Technical Education (CTE) courses have prerequisites and/or corequisites that have been accounted for within this Plan of Study Guide. Please register for your major requirements each semester as shown below using the Student Planning tool in myCWI. Consult your advisor for any questions regarding this plan.

NOTE: The required general education courses may be completed during any semester the student prefers, including summer semesters.

First Year

		Credit Hours
Fall		
DRFT 100	Construction Materials and Processes	3
DRFT 114	Drafting Basics	3
DRFT 118	Introduction to Revit	3
DRFT 119	Introduction to AutoCAD	4
Select one of the following (GEM 3):		3-5
MATH 123	Math in Modern Society	
MATH 143 or MATH 143P	College Algebra or College Algebra	
MATH 147	College Algebra and Trigonometry	
MATH 153	Statistical Reasoning	
MATH 160	Survey of Calculus	
MATH 170	Calculus I	
Total Semester Credit Hours		16
Spring		
DRFT 120	Residential Architecture	4
DRFT 123	Introduction to Solidworks	3
DRFT 139	Applied Problem Solving for Drafting	3
DRFT 190	Job Skills for Drafting	1
PSYC 140	Human Relations for Career and Personal Success (GEM 6)	3
<u>GEM 1 - Written Communication course</u>		3
Total Semester Credit Hours		17
Second Year		
Fall		
DRFT 211	Civil Drafting and Math	4
DRFT 212	Structural and HVAC System Drafting	5
DRFT 213	Machine Drafting and Design	4
<u>GE Elective course</u>		3
Total Semester Credit Hours		16
Spring		
DRFT 217	Commercial Architecture	4
DRFT 218	Electrical and Plumbing Systems Drafting	4
DRFT 239	Advanced Revit Techniques	3
DRFT 290	Drafting Technology Capstone	1
<u>GEM 2 - Oral Communication course</u>		3
Total Semester Credit Hours		15
Minimum Credit Hours Required		64

Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Understand the underlying CAD independent workflow required to create 2D drawings and 3D models.
- Understand how drafting fits into the overall product design phase and the construction design process.
- Demonstrate comprehensive knowledge of detail drafting standards to document a product or construction design, including geometry views, dimensioning and annotation standards, multiple material call-out methods, and overall drawing package.
- Demonstrate mastery of AutoCAD as a 2D drawing and drafting design tool.
- Demonstrate mastery of AutoCAD for Architecture and Revit as 3D modeling and 2D drafting design tools.
- Demonstrate intermediate skills required for 3D part design in Solidworks.
- Demonstrate intermediate skills required for Civil design in Civil 3D.
- Demonstrate the intermediate skills required for SketchUp for conceptual design, site massing design, and drawing creation.

- Understand advanced file management and workflow skills, including central model-based collaborative design, linked files and objects, and external file reference skills.
- Understand and apply job search skills and tools to evaluate different companies and start a career in drafting.