

ENGINEERING DESIGN GRAPHICS MECHANICAL SPECIALTY, CERTIFICATE OF TECHNOLOGY

Program Information

All successful projects start with a good plan. For architects, engineering designers, CAD drafters, and builders, that plan comes in the form of working drawings produced by technically talented and well-trained individuals. If you have a desire to express your knowledge through computer-aided design software, San Jacinto College can give you the skills you need to make your way into this exciting field. This degree allows you to pursue careers that strike a satisfying balance between creativity, technical proficiency, and attention to detail. You can make yourself an indispensable asset in a variety of fields, such as architecture, manufacturing, engineering, construction, and the oil and gas industry, with a degree in engineering design graphics.

Central campus offers Engineering Design Graphics foundation courses: DFTG 1305 Technical Drafting, DFTG 1409 Basic Computer-Aided Drafting, and DFTG 2317 Descriptive Geometry. Classes will be held in Building 45, the new Petrochemical, Energy, & Technology building. Students can check the online Schedule of Classes for days and times.

The Engineering Design Graphics (EDG) program at San Jacinto College:

- Trains students to translate the ideas of designers, engineers, and architects from rough sketches, design layouts, specifications, and calculations into working drawings, maps, plans, illustrations, and 3D models;
- Offers students the skills needed to prepare technical drawings and/or 3D models using Computer Aided Drafting (CAD), design, and 3D modeling software; and
- Offers degree plans in three areas:
 - a. Architectural/Civil/Structural
 - b. Mechanical
 - c. Petro/Industrial

Career Opportunities

Growth in Houston's diversified job markets has created employment openings for drafters. Career opportunities for drafters are available in:

- Architecture;
- Engineering: Electrical, Instrumentation, Structural, Civil;
- Manufacturing;
- Oil, Energy, and Petrochemical; and
- Public Works.

Earning Potential

Mechanical drafter median salary: \$66,592 per year¹

¹ Source: texaswages.com (<http://texaswages.com>), Gulf Coast region, 2018

For more information, students may contact North campus, 281-998-6150, x7765; and South campus, 281-998-6150, x3587.

Campuses

North Campus
South Campus

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Plan of Study

North and South campuses

4DFT-M

Course	Title	Credits
First Term		
DFTG 1305	Technical Drafting	3
DFTG 1409	Basic Computer-Aided Drafting	4
Credits		7
Second Term		
DFTG 1433	Mechanical Drafting	4
DFTG 1445	Parametric Modeling and Design	4
DFTG 2317	Descriptive Geometry	3
DFTG 2440	Solid Modeling/Design	4
Credits		15
Third Term		
DFTG 2402	Machine Drafting	4
DFTG 2406	Machine Design	4
Credits		8
Fourth Term		
DFTG 2435	Advanced Technologies in Mechanical Design and Drafting	4
DFTG 2458	Advanced Machine Design	4
DFTG 2386 or DFTG 2338	Internship-Drafting and Design Technology/ Technician ¹ or Final Project - Advanced Drafting	3
Credits		11
Total Credits		41

Capstone Experience:¹ DFTG 2386 Internship-Drafting and Design Technology/Technician or DFTG 2338 Final Project - Advanced Drafting

¹ The course selected to satisfy the Capstone Experience (DFTG 2386 Internship-Drafting and Design Technology/Technician or DFTG 2338 Final Project - Advanced Drafting) can only be taken during, or after, the term in which the last required and elective Engineering Design Graphics courses are completed.

Courses **do not** have to be taken in this order unless a course has a prerequisite.

For more detailed information on this program, contact the Department Chair or faculty.