



**\$23.35**

Median hourly pay  
Source: Bureau of Labor Statistics



College of the Mainland®

# CAD Drafting

## Dual Credit Academy Workforce Programs for High School Students

### About the Career

Turning ideas into designs, drafters create electrical, mechanical, product or architectural plans and find opportunities in many industries. A well-paying career, drafting requires only an associate degree to reach a high level of success.

### Job Market and Salary

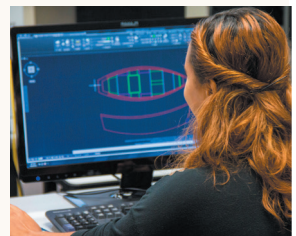
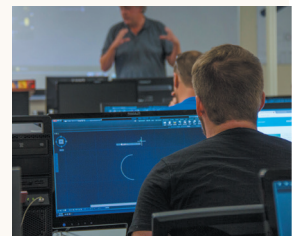
Drafting	Average Median Salary	Percentage of Growth by 2022	Replacement by 2022
Houston Region	\$62,580	1.1%	16.1%
Texas	\$54,600	1.1%	16.1%
National	\$55,670	1.1%	16.1%

### About COM Program

The Drafting Program offers three certificates and an Associate of Applied Science. The certificates include a CAD certificate, a 2D/3D modeling certificate, and an industrial drafting certificate. The associate degree provides students with an intermediate skill level in the use of computer-aided design (CAD) software.

### Contact Information

Please speak with the dual credit advisor or college connection advisor at your high school.



# CAD Drafting Certificate

## Dual Credit Academy Workforce Programs for High School Students

### DFTG 1305 – TECHNICAL DRAFTING

An introduction to the principles of drafting, such as terminology and fundamentals, including size and shape descriptions, preparation methods, geometric construction, sections, auxiliary views and reproduction processes.

### DFTG 1409 – BASIC COMPUTER-AIDED DRAFTING

An introduction to basic computer-aided drafting. Emphasis is placed on drawing setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects; adding text and dimensions; using layers, coordinate systems and input/output devices. This course will be taught hybrid (64 hours face to face and 32 hours online instruction)

### DFTG 2419 – INTERMEDIATE COMPUTER-AIDED DRAFTING

A continuation of practices and techniques used in basic computer-aided drafting, emphasizing extended use of two-dimensional commands such as paper space, and introduction to the extraction of attributes and three-dimensional drafting.

Prerequisites: DFTG 1305 and DFTG 1409.

This course will be taught hybrid (64 hours face to face and 32 hours online instruction)

### DFTG 2440 – SOLID MODELING/DESIGN

An advanced computer-aided modeling course that will cover development of three-dimensional drawings and models from engineering sketches and orthographic drawings and utilization of three-dimensional models in design work.

Prerequisite: DFTG 1305 and DFTG 1409.

This course will be taught hybrid (64 hours face to face and 32 hours online instruction)

### DFTG 2432 – ADVANCED COMPUTER-AIDED DRAFTING

An advanced level course. This course will cover advanced techniques, including the use of a customized system as well as presentation of advanced drawing applications, such as three-dimensional solid modeling and linking graphic entities to external non-graphic data.

Prerequisite: DFTG 1305 and DFTG 1409 or instructor approved.

This course will be taught hybrid (64 hours face to face and 32 hours online instruction)

### DFTG 2423 – PIPE DRAFTING

A study of pipe fittings, symbols, specifications and their applications to a piping process system. Creation of symbols and their usage in flow diagrams, plans, elevations and isometrics.

Prerequisites: DFTG 1305 and DFTG 1409 or instructor approved.

This course will be taught hybrid (64 hours face to face and 32 hours online instruction)

### DFTG 2428 – ARCHITECTURAL DRAFTING-COMMERCIAL

A course in architectural drafting procedures, practices, governing codes, terms and symbols including the preparation of detailed working drawings for commercial building, with emphasis on commercial construction methods.

Prerequisites: DFTG 1305 and DFTG 1409 or instructor approved

This course will be taught hybrid (64 hours face to face and 32 hours online instruction)

### POFT 1300 – CAREER EXPLORATION/PLANNING

An introduction to the process of career decision-making, educational planning, and job searching. Topics include analyzing personal career interests, values, and aptitudes; surveying and researching career fields with related educational and training requirements; practicing the decision-making process; and basic job search skills such as completing applications, writing letters of application, developing and using resumes and interviewing.

Semester	Course	Credit Hours Contact Hours	Days	Times	Tuition (In/Out District)
Year 1 – Fall	DFTG 1305	3 / 64	TTH	1:30-3:30	\$225 / \$275
	DFTG 1409 HY	4 / 96	MW		
Year 1 – Spring	DFTG 2419 HY	4 / 96	TTH	1:30-3:30	\$250 / \$300
	DFTG 2440 HY	4 / 96	MW		
Year 2 – Fall	DFTG 2432 HY	4 / 96	TTH	1:30-3:30	\$250 / \$300
	DFTG 2423 HY	4 / 96	MW		
Year 2 – Spring	DFTG 2428 HY	4 / 96	MW	1:30-3:30	\$225 / \$275
	POFT 1300	3 / 48	TTH		

**Students will be required to attend lab every Friday 1:30-3:30 for complete program.**

Courses ending in HY will be taught hybrid (80 hours face to face and 16 hours online instruction.)

Hybrid courses have an additional \$25 fee per course (fee included in tuition cost listed above).

**TSI Assessment:** Not needed for certificates.

**Credential:** CAD Drafting Certificate - 2D/3D Modeling Certificate

#### COM Next Steps – Stackable Credentials:

- Complete DFTG 2430, DFTG 2407 and ARCE 1452 to obtain Industrial Drafting Certificate
- Associate of Applied Science - Drafting