

# DRAFTING TECHNICIAN: ARCHITECTURAL/MECHANICAL

## PROGRAM DESCRIPTION:

The drafting program degrees and certificates provide the basic knowledge and skills in drafting, mathematics, art, and related scientific and engineering areas to prepare students for employment in manufacturing and architectural industries. Each program focuses on the skills necessary to be successful and gain employment in related fields. Computer aided drafting (CAD) will be used to complete the required work in most of the classes.

Courses designed to fulfill major requirements for an Associate in Science Degree from Chaffey College are not the same as those required for completing the major at a transfer institution offering a baccalaureate degree. Students who intend to transfer to a four-year college or university in any major should consult the catalog of the appropriate transfer institution and a Chaffey College counselor to develop a preferred plan of study.

## CAREER AT A GLANCE:

### HOW DO I KNOW IF THIS MAJOR IS FOR ME?

- You like to use computers to draft designs
- You like to use maps, diagrams, and charts
- You are detail orientated and like to interpret data
- You enjoy completing work independently
- You like practical, hands-on problems
- You like set procedures and routines

*Use Focus2Career on your MyChaffey portal to learn more about careers and majors that fit you best.*

### WHERE CAN I WORK?

Architectural Services	Engineering Services
Instrument Manufacturing	Construction Companies
Industrial Plants	Metal/Electronic Plants
Utility Companies	Plastics/Rubber Manufacturing
Building Equipment Companies	Machinery Manufacturers

*For more information visit: [www.labormarketinfo.edd.ca.gov/OccGuides](http://www.labormarketinfo.edd.ca.gov/OccGuides)*

### HOW DO I GET STARTED?

- Start taking the introductory drafting courses
- Apply for entry level positions in reception, data entry, or customer service with employers where you would like to promote
- Job shadow and network with drafting and architectural professionals
- Update resume with technical and classroom experiences

### WHAT CAN I DO WITH THIS CERTIFICATE AND/OR ASSOCIATE DEGREE?

<i>Position Title</i>	<i>CA Median Salary</i>
Architectural Drafter	\$59,860
Architectural Drafting Aide	\$59,860
CAD Operator	\$57,800
Civil CAD Technician	\$59,860
Drafting Technician	\$66,400
Draftsperson	\$59,860
Mechanical Drafter	\$57,800
CAM Operator	\$59,860

### WHAT CAN I DO WITH HIGHER EDUCATION AND ADDITIONAL TRAINING?

<i>Position Title</i>	<i>CA Median Salary</i>
Civil Engineer	\$105,540
Architect	\$88,780
Mechanical Engineer	\$98,260
Industrial Engineer	\$101,420
Materials Engineer	\$113,380
Design Engineer	\$105,540
Industrial Designer	\$68,700
Commercial Designer	\$68,700

*For more information about careers, education and training requirements, salary data, and job outlooks visit [www.onetonline.org](http://www.onetonline.org).*

# DRAFTING TECHNICIAN: ARCHITECTURAL

**MAJOR AND COURSE REQUIREMENTS:**

**LEGEND:** G=Grade    IP=In Progress    N=Need    **Bold: Prerequisites**    Plain Text: No Prerequisites

**Major Requirements for the Associate in Science Degree: (S125)**

		<b>Grade</b>	<b>IP</b>	<b>Need</b>	<b>Units</b>
DRAFT 20	Computer-Aided Drafting and Design				4
<b>DRAFT 21</b>	<b>Mechanical Design I</b>				3
<b>DRAFT 50</b>	<b>Architectural Design I</b>				3
<b>DRAFT 51</b>	<b>Architectural Design II</b>				3
<b>DRAFT 53</b>	<b>Architectural Applications of CAD</b>				4
EGTECH 10	Introduction to Engineering Design				4
EGTECH 30	Introduction to Additive Manufacturing-3D Printing				4
<b>PHYS 5</b>	<b>The Ideas of Physics</b>				3
<b>PHYS 6</b>	<b>The Ideas of Physics Laboratory (or any advanced course in physics with a laboratory)</b>				1

Student Name: \_\_\_\_\_

ID#: \_\_\_\_\_

Date: \_\_\_\_\_

Counselor: \_\_\_\_\_

**Requirements for Drafting Technician: Architectural Certificate: (L125)**

Same as the major requirements for the A.S. Degree

<b>COUNSELOR NOTES:</b>

\$46 per unit for CA Residents

In addition to completion of the MAJOR, there are other requirements for the degree, refer to the Chaffey College Graduation Requirement Sheet or see a counselor in the Counseling Center.  
 All courses required for a certificate must be completed with a minimum grade of C.

# DRAFTING TECHNICIAN: MECHANICAL CAD/CAM OPERATOR

**MAJOR AND COURSE REQUIREMENTS:**

**LEGEND:** G=Grade    IP=In Progress    N=Need    **Bold: Prerequisites**    Plain Text: No Prerequisites

<i>Major Requirements for the Associate in Science Degree: (S135)</i>		<b>Grade</b>	<b>IP</b>	<b>Need</b>	<b>Units</b>
DRAFT 20	Computer-Aided Drafting and Design				4
<b>DRAFT 21</b>	<b>Mechanical Design I</b>				3
<b>DRAFT 41</b>	<b>Computer-Aided Drafting and Design: Mechanical</b>				4
<b>DRAFT 43</b>	<b>Advanced CAD Modeling and Applications</b>				3
<b>DRAFT 78</b>	<b>Advanced Design Applications</b>				4
EGTECH 10	Introduction to Engineering Design				4
<b>EGTECH 16</b>	<b>Computer Integrated Manufacturing –CNC Material Removal</b>				3
EGTECH 30	Introduction to Additive Manufacturing-3D Printing				4
<i>Required General Education courses:</i>		<b>Grade</b>	<b>IP</b>	<b>Need</b>	<b>Units</b>
<b>PHYS 5</b>	<b>The Ideas of Physics</b>				3
<b>PHYS 6</b>	<b>The Ideas of Physics Laboratory (or any advanced course in physics with a laboratory)</b>				1

*Requirements for the Drafting Technician: Mechanical Certificate: (L135)*

Same as the major requirements for the A.S. Degree and general education requirements, *plus:*

	<b>Grade</b>	<b>IP</b>	<b>Need</b>	<b>Units</b>
<b>COOPED 497ABCD</b>	<b>General Work Experience (any combination to equal 3 units)</b>			3

Computer-Aided Drafting/Computer-Aided Manufacturing (CAD/CAM) certificate students have learned to operate current industry-standard software used in mechanical design and manufacturing. This includes 2D and 3D modeling, as well as using models designed in these programs as the basis for CNC tool-path generation for part fabrication. Students will also have a fundamental understanding of drafting practices and standards and material removal manufacturing processes.

*Major requirements for the CAD/CAM Operator Certificate: (E128)*

*(Non-Transcripted)*

	<b>Grade</b>	<b>IP</b>	<b>Need</b>	<b>Units</b>
DRAFT 20	Computer-Aided Drafting and Design			4
<b>DRAFT 21</b>	<b>Mechanical Design I</b>			3
<b>DRAFT 43</b>	<b>Advanced CAD Modeling and Applications</b>			3
EGTECH 10	Introduction to Engineering Design			4
<b>EGTECH 16</b>	<b>Computer Integrated Manufacturing –CNC Material Removal</b>			3

In addition to completion of the MAJOR, there are other requirements for the degree, refer to the Chaffey College Graduation Requirement Sheet or see a counselor in the Counseling Center. All courses required for a certificate must be completed with a minimum grade of C.