

PROGRAM APPROVAL APPLICATION
NEW or SUBSTANTIAL CHANGE or LOCALLY APPROVED
(This application may not exceed 3 pages)

Fill In Form

Drafting Level II Certificate

Fall-2018

Proposed Program Title

Projected Program Start Date

Fullerton College

North Orange County Community College District

College

District

Contact Information

Doug Benoit
 Voting Member

Dean Business & CIS Office
 Title

714-992-7033

dbenoit@fullcoll.edu

Phone Number

Email

Goal(s) of Program (Check all that apply):

Career Technical Education (CTE)

Transfer

Other

Type of Program (Check all that apply):

Certificate of Achievement 12-17 (or 17-27 quarter) units

Certificate of Achievement 18+ semester (or 27+ quarter) units

Associate of Science Degree

Associate of Arts Degree

Reason for Approval Request (Check One):

New Program

Substantial Change

Locally Approved

Program Information

0953.00

Recommended [Taxonomy of Program \(TOP\) Code](#)

_____ Units for Major-Degree

_____ Total Units for Degree

37 Required Units-Certificate

Written Form

1. Insert the description of the program as it will appear in the catalog. (See PCAH pp. 142 and 170)

The Industrial Drafting Level II Certificate Program is designed for students who have completed Level I and wish to learn advanced technical drafting skills required by industry. This certificate requires completion of the Level I Certificate (18 units) plus a minimum of 19 units of required courses for a total of 37 units. A grade of "C" or better is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.

2. Provide a brief rationale for the program.

- The Industrial Drafting Level II Certificate program is designed to give students advanced an advanced skill set in the Technical Drafting field. In the Industrial Drafting Level II certificate program students will learn basic and advanced drafting and develop basic and advanced CAD/CAM skills applicable to general drafting positions.
- Drafters may work in a wide variety of areas including architectural, mechanical, structural, electrical, and civil. Drafters may also do document control, surveying, mapping, estimating and design. They prepare the technical drawings and plans used by production and industries. The work of drafters makes the production of manufactured products become a reality. This includes everything from toys to toasters, to industrial machinery, spacecraft, houses, office buildings, and oil and gas pipelines.
- Instruction at Fullerton College is based in a Computer Aided Design (CAD) lab with advanced hardware and software where a student will be trained to industry standards. Graduates of Fullerton College’s drafting program have equal preparation in both mechanical and architectural drafting.
- Locally, drafters are employed in engineering firms and companies that are subcontractors and materials suppliers for construction projects. Drafters are also employed at local manufacturing and fabrication companies. In addition, drafters may work in government, transportation, utilities, communications, and through self-employment.

3. Summarize the Labor Market Information (LMI) and employment outlook (including citation for the source of the data) for students exiting the program. (See PCAH pp. 85-88, 136, 147, 148, 165, 168, and 176)

The three-year average supply from regional colleges is 51 per year. Regional annual openings for the SOC codes listed within 17-3000 group are at a minimum of 197 indicating a gap of 146 hires per year. Source:

<http://coeccc.net/supply-demand/> For Orange County

EDD enrollment projection stated below.

SOC Code*	Occupational Title	Estimated Employment 2012**	Projected Employment 2022	Numeric Change 2012-2022 [1]	Percent Change 2012-2022	Annual Average Percent Change
-----------	--------------------	-----------------------------	---------------------------	------------------------------	--------------------------	-------------------------------

Orange County

17-3000	Drafters, Engineering Technicians, and Mapping Technicians	9,390	9,220	-170	-1.8%	-0.2%
17-3011	Architectural and Civil Drafters	2,040	1,970	-70	-3.4%	-0.3%
17-3012	Electrical and Electronics Drafters	320	340	20	6.3%	0.6%
17-3013	Mechanical Drafters	580	530	-50	-8.6%	-0.9%
17-3019	Drafters, All Other	220	240	20	9.1%	0.9%
California 17-3000	Drafters, Engineering Technicians, and Mapping Technicians	77,400	80,400	3,000	3.9%	0.4%
17-3011	Architectural and Civil Drafters	12,200	12,100	-100	-0.8%	-0.1%
17-3012	Electrical and Electronics Drafters	4,500	5,000	500	11.1%	1.1%
17-3013	Mechanical Drafters	4,100	3,800	-300	-7.3%	-0.7%
17-3019	Drafters, All Other	1,800	2,100	300	16.7%	1.7%

4. List similar programs at other colleges in the Los Angeles and Orange County Region which may be adversely impacted. (There is space for 10 listings, if you need more, please contact laocrc@rscdd.edu)

College	Program	Who You Contacted	Outcome of Contact
Cerritos College	Manufacturing Technology	Miodrag Micic	Left email
Mt. SAC	Engineering Design	Jenny Wang	Left voice mail
Saddleback College	Drafting Technology	Susan Sherod	Left email
Santa Ana College	Engineering CAD	Steve James	Left email

5. List all courses required for program completion, including core requirements, restricted electives and prerequisites. (There is space for 20 listings, if you need more, please contact laocrc@rscdd.edu). (See PCAH pp. 143 and 171)

Courses	Course Number	Course Title	Units
Required core	Completion of Level I Certificate	Industrial Drafting Level I	18
Required core	DRAF 141 F	Advanced CAD for Industry	2
Required core	DRAF 143 F	3D Applications Using AutoCAD	2
Required core	DRAF 944 F	Solidworks	3
Required core	TECH 081 F	Technical Mathematics I	3
Required core	MACH 152 F	Advanced CNC Programming Using Mastercam	3
Required core	Or		
Required core	MACH 156 F	Advanced CNC Programming Using Surfcam	3
Required core	WELD 192AF	Metallurgy	3
Required core	TECH108 F	Manufacturing Processes	3

6. Include any other information you would like to share.