

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

Fill In Form

Proposed Program Title **Technical Drawing - Certificate of Achievement**

Projected Program Start Date **August 2017**

College **Rio Hondo College**

District **Rio Hondo College**

Contact Information

Bruce Noble
 Voting Member

DSN – EC&U –LA
 Title

562-463-7354
 Phone Number

Bruce.noble@riohondo.edu
 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

095300 Recommended [Taxonomy of Program \(TOP\) Code](#)

_____ Units for Major-Degree

_____ Total Units for Degree

20 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 following **Technical Drawing** curriculum will lead to the Certificate of Achievement and prepare students for employment as an early entry level technician in the field of Architecture, Civil and Engineering Design Drafting / Drawing. Students will develop skill-based training techniques and knowledge of technical drawing industry standards that will also prepare them for advanced studies in the pursuit of more advanced certificates or degrees for transfer.

2. Provide a brief rationale for the program.

The Technical Drawing COA is a stackable foundational certificate within existing larger certificates and degrees within nine (9) Rio Hondo Architecture, Drafting, Engineering and GIS programs. The design of the program is consistent with other Rio Hondo Community College programs. The certificate program provides both a set of required courses as well as restricted elective courses that allow a student to choose instruction more specifically related to their respective professional needs. The Technical Drawing Certificate program is in alignment with the college's Mission Statement, emphasizing the development of relevant high-quality instructional programs in both local and global populations, and the offering of entrepreneurial activities that meet community needs.

Further, this certificate program is intended to meet the mission of Rio Hondo College by:

1. Serving the general community in making the numerous courses related to technical drawing available to those desiring or needing such knowledge and entry-level skills.
2. Providing students with technical preparation needed to become entry-level CAD/Drafting Technicians
3. Offering students with an interest in pursuing a career in the technical drawing field with a major providing them with knowledge and entry-level skills to work in this field.

The certificate program also conforms to statewide planning by directly addressing the Chancellor's Office strong recommendation for more small stackable certificates. Further, the certificate program addresses elements of the California Economic and Workforce Development (EWD) Mission Statement in the following ways:

1. Addresses Southern California economic growth by focusing on the expressed needs of regional employers with an emphasis on an improved competency level of entry-level technical drawing CAD/Drafting technicians.
2. The certificate program leverages industry resources and combines the resources of the district and industry partners.
3. The certificate program coordinates expertise from business, labor and trade associations to assist new and incumbent workers to upgrade their skills and move up their respective career ladders.

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 architectural design/engineering/construction industry and mechanical design engineering/manufacturing industry continues to offer good employment opportunities and has incrementally increased ever since the economy turned around in 2013-14 with new available funding for new projects and use of new technologies. Opportunities are available for entry-level CAD Drafting Technicians in both public service and private enterprise. The technical drawing fields / disciplines offer students a wide range of career opportunities and paths depending on individual interests, aptitude and goals. Numerous requests and responses from L.A., Orange, and Riverside-San Bernardino county architects, engineers, product designers, industrial manufacturers, planners, construction managers, and public works agencies all testify to the need for technicians with technical drawing skills and knowledge that includes the ability to use CAD technology and apply proper Drafting/CAD industry standards.

EDD State labor market information shows a projected growth for Technical Drawing/CAD Drafting Technicians between 2015 and 2017 short term and 2014 and 2024 long term. Data shows a positive numeric change for Drafters, Architectural Drafters, Civil Drafters, Electrical Drafters, and Mechanical Drafters totaling 5,600 for short term projections, an average of 5.7% representing all 5 categories of drafters mentioned previously.

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
All Los Angeles and Orange colleges have related programs.	Since this certificate is a stacking / repackaging of existing certificates , not a completely new program area, none of the programs at Colleges in Los Angeles or Orange county should be adversely impacted by this certificate	All Los Angeles and Orange colleges have related programs.	Cypress Supports the application Comments received from Santa Ana & LATTTC, which have been addressed. BN(4-04-2017)

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
	<u>ARCH 115</u>	Introduction to Residential Architecture: Drawing and Design	<u>4</u>
	<u>CIV 140</u>	Civil Drafting Fundamentals	<u>3</u>
	<u>ENGT 101</u>	Introduction to Technical Drawing & Graphics	<u>3</u>
	<u>ENGT 105</u>	Architectural and Technical Freehand Sketching	<u>2</u>
	<u>ENGT 122</u>	Engineering Design Graphics	<u>4</u>
	And		
	<u>ENGT 150</u>	AutoCAD for Basic CADD Applications	4
	Or		
	<u>ENGT 170</u>	MicroStation for Basic CADD Applications	<u>4</u>

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

NOI Submitted March 2017 as "Architecture, Civil, Engineering Design Drafting CAD"