

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

Fill In Form

Proposed Program Title: Engineering Technology - Mechanical
 Engineering Design Technician

Projected Program Start Date: Fall 2017

College: Cerritos College/El Camino College

District: Cerritos College/El Camino College

Contact Information

Voting Member: Nick Real (Cerritos) – Virginia Rapp (El Camino)

Title: Instructional Dean (Cerritos) – Business Dean (El Camino)

Phone Number: 562-860-2451 x2903 (Cerritos) 310-660-3593 x6461

Email: yreal@cerritos.edu (Cerritos) – vrapp@elcamino.edu

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

0924.00 Recommended [Taxonomy of Program \(TOP\) Code](#)
 N/A Units for Major-Degree
 N/A Total Units for Degree
 12 to 14 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)

Engineering Technology focuses on application and implementation of concepts in the engineering field. Our program prepares students to become technicians in industry. Those technicians typically assist engineers on a daily basis. This field of study also provides a general understanding of technology that is very useful in any technical field. Students interested in continuing their studies can transfer to Engineering Technology programs at universities.

2. Provide a brief rationale for the program.

The Engineering Technology Program at Cerritos and El Camino Colleges provides students with the theory, practical knowledge, hands-on experience and skills necessary for employment as an engineering technology technician. Through the completion of this program, students are able to gain employment to assist engineers in researching, developing, manufacturing, servicing, and maintaining a wide variety of mechanical products. The program also provides a pathway from our partner high schools offering an engineering technology program. Finally, the program provides employees working in the field with opportunities for upgrading their skills and acquiring new knowledge. The development of this program is due to the collaboration between Cerritos College and El Camino College faculty over several years. The AMETLL Career Pathway Trust grant our colleges received, in collaboration with Harbor, Pasadena, Long Beach, and Compton has broadened this collaboration and allowed for judicious recommendations from these other partners. It is expected that all partners in the grant will bring a proposal forward. Cerritos College and El Camino are the first ones to do so. The notice of intent was filed in 2016.

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 proposed certificate has several corresponding classifications in the Department of Labor’s US bureau of Labor Statistics. They are to be found under category 17-3XXX. Under that code 3021 is Aerospace Eng. and Operations Technicians, 3023 is Electrical and Electronics Eng. Tech., 3024 is Electro-Mechanical Eng. Tech, 3025 is Environmental Eng. Tech, 3026 is Industrial Eng. Tech., 3027 is Mechanical Eng. Tech., and 3029 is all other. EDD (www.labormarketinfo.edd.ca.gov) provides us with the following data: There is an average annual 204 total jobs in the Los Angeles-Long Beach-Glendale metropolitan division of LA county and an average annual of 116 jobs in the Anaheim-Santa Ana-Irvine metropolitan division of Orange county. An exploration of EMSI indicated an average hire of 521 with the same SOC codes. The largest 10 employers in order represented by Teledyne, Remx, Northrop Grumman, Kelly, Evoqua, Johnson, Hawker, Butler, Newport, Randstad. Both the Cerritos and El Camino Colleges advisory committees concurred with this data and approved unanimously these proposals. Representatives from Siemens, Verisurf, Northrop, Arrowhead, Airwolf, Contech, API, and others were present.

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
El Camino	Engineering Technology	Virginia Rapp	Support
Harbor	Engineering Technology	Sandra Sanchez	Emailed – No response
LAVC	Engineering Technology	Nalepa Laurie	Emailed – No response
Long Beach	Engineering Technology	Mollie Smith	Emailed – No response
Pasadena	Engineering Technology	Salomon Davila	Emailed – No response
Glendale	Engineering Technology	Jan Swinton	Emailed – No response
Cypress	Engineering Technology	Steve Donley	Support
Irvine	Engineering Technology	Corine Doughty	Emailed – No response
Rio Hondo	Engineering Technology	Bruce Noble	Emailed – No response
Saddleback	Engineering Technology	Anthony Teng	Emailed – No response

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)

Mechanical Engineering Design Technician - Certificate of Achievement

		<u>Units</u>
ET 101	Principles of Engineering Technology	3.0
ENGT 103	Introduction to Engineering Design Using Inventor	3.0
MTT 180	Robotics for Computer Numerically Controlled Machines	3.0
Plus one course from the following:		
ET 102	Electronics for Engineering Technologists	3.0
ENGT 104	Principles of Aerospace Design Technology	4.0
ENGT 131	Design Fundamentals Including Solid Modeling	3.0
MTT 51	MasterCAM Milling	3.5
WELD 120	Beginning Arc Welding	<u>5.0</u>
		12.0-14.0

<p>6. Include any other information you would like to share.</p>
