

DEGREES & CERTIFICATES

MECHANICAL ENGINEERING UC PATHWAY CERTIFICATE OF ACHIEVEMENT (CA)

About the Program

The Certificate of Achievement in Mechanical Engineering UC Pathway degree is offered to prepare students to transfer a school in the University of California system as a Mechanical Engineering major. This program will enable students to develop a strong foundational understanding in engineering, physics and mathematics that will be essential as they continue on the engineering pathway. In addition, students will benefit from hands-on laboratory experiences in their engineering and science courses allowing them to learn by doing. The LPC Mechanical Engineering certificate is intended for transfer to the University of California system. Students are encouraged to meet with a counselor early on and refer to the catalog of the prospective transfer institution to determine specific major requirements required for transfer since they can vary from university to university. Finally, because this program is a high-unit major, counselors can also assist in determining appropriate general education courses to complete the degree requirements. If interested in transferring to a CSU or other university not in the UC system as a Mechanical Engineering major, please see the Associates of Science or Certificate of Achievement in Civil/Mechanical Engineering.

Program Goals and Objectives

The goal of the Mechanical Engineering UC Pathway Certificate of Achievement is to prepare students to transfer to the University of California system in Electrical Engineering. This program provides a guided path of courses to take for students who aspire to be electrical engineers and are planning on transferring to a UC. The Mechanical Engineering UC Pathway Certificate of Achievement provides a strong foundation in engineering, physics and mathematics. Students also gain critical hands-on laboratory skills that will help them to succeed in their future educational and career endeavors.

Career Opportunities

This program provides a solid foundation for those who want to continue their education and earn a bachelors degree in mechanical engineering which is generally required for entry level mechanical engineering jobs. This program also prepares students for entry level jobs to design, develop, build and test mechanical tools, engines and a wide variety of other equipment. They can work in almost any industry using tools such as Computer Aided Design (CAD) to design everything from a robot used in automotive manufacturing to a more efficient jet engine.

Program Outcomes

- Upon completion of the Certificate of Achievement in Mechanical Engineering UC Pathway, students are able to apply fundamental principles from mathematics, science and engineering to solve a mechanical engineering-related problem.
- Upon completion of the Certificate of Achievement in Mechanical Engineering UC Pathway, students are able to set up appropriate laboratory equipment, collect and analyze mechanical engineering data, draw conclusions, and clearly communicate results.
- Upon completion of the Certificate of Achievement in Mechanical Engineering UC Pathway, students are able to use a variety of technological tools to solve mechanical engineering problems.

Required Core: (63 Units)

CHEM 1A General College Chemistry I.....	5
CHEM 1B General College Chemistry II.....	5
CS 1 Computing Fundamentals I.....	4
ENGR 1 Introduction to Engineering.....	2
ENGR 23 Engineering Graphics.....	3
ENGR 35 Statics.....	3
ENGR 44 Introduction to Circuit Analysis.....	4
MATH 1 Calculus I.....	5
MATH 2 Calculus II.....	5
MATH 3 Multivariable Calculus.....	5
MATH 5 Ordinary Differential Equations.....	3.5
MATH 7 Elementary Linear Algebra.....	3.5
PHYS 1A General Physics I.....	5
PHYS 1B General Physics II.....	5
PHYS 1C General Physics III.....	5