FIRE PROTECTION ENGINEERING SCIENCE GRADUATE CERTIFICATE

Offered at: San Luis Obispo Campus

https://fpe.calpoly.edu/

The courses offered in the Fire Protection Engineering Science graduate certificate program will prepare students for a specialized career in fire protection engineering. Students completing the certificate program will be prepared for careers in:

- Forensic Investigations;
- Nuclear Fire Safety;
- Fire Science Research (R&D facility, Testing Lab, etc.)
- Government
- Fire Departments

Requirements for Admission

Students apply via Cal State Apply (https://www.calstate.edu/apply/) and must submit a transcript. In addition, applicants must submit a personal statement describing their interest in fire protection engineering. They also need to submit a resume and request three letters of recommendation.

International Students must meet all the standard eligibility criteria and demonstrate proficiency in English (English Proficiency Exam Requirements (https://www.calpoly.edu/admissions/international-student/selection-criteria/english-exam-requirements/))

Prerequisites: An applicant should hold a bachelor's degree in engineering or a closely related field from a regionally accredited institution, college, or university. Non-engineering applicants must have completed calculus through differential equations, a general chemistry course, and a general physics course.

Minimum GPA: An undergraduate grade point average of 3.0 is required. On occasion, where other credentials are exceptionally strong, a GPA in the 2.5-3.0 range may be accepted.

Application due date: Applicants are accepted for Fall and Spring semester enrollment. Please see Graduate Student Dates and Deadlines (https://www.calpoly.edu/admissions/graduate-student/dates-and-deadlines/) for application deadlines.

Program Learning Objectives

1. Apply concepts associated with the thermal sciences, including thermodynamics, fluid mechanics, and heat transfer, to the analysis of fire protection engineering problems.
2. Analyze the flammability characteristics of different materials, interpret the results of standard and non-standard fire test methods and evaluate the fire hazards associated with different materials in a range of anticipated settings.
3. Analyze the dynamics of fires in and around buildings and other structures through the application of fundamental principles and the use of state-of-the-art computer-based fire simulation models.

Code	Title	Units
REQUIRED COURSES		
FPE 5501	Fundamental Thermal Sciences	3
FPE 5502	Fire Dynamics and Flammability	4
FPE 5504	Fire Modeling and Applications	4
Total Units		**11**