

# FIRE PROTECTION ENGINEERING

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## A. James Clark School of Engineering

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<http://fpe.umd.edu>

Students interested in protecting people, property, buildings, communities and the environment, designing fire detection, mitigation and suppression systems, developing fire-safe products and materials, conducting hazard analysis and performing computer simulations, can all pursue their interests by earning a B.S. degree and working in fire protection engineering.

Our students begin their undergraduate career with a strong engineering education grounded in the fundamental concepts of physics, mechanics, dynamics, fluid mechanics, thermodynamics and heat transfer. Combining these skills with the design of engineering systems, the fire protection engineer will learn how to develop solutions to protect from the devastating effects of fires. In their junior and senior years, students will focus on:

- Detection and suppression
- Fire-resistant materials
- Fire dynamics
- Emission of smoke, soot and gases
- Human behavior and life safety
- Computer modeling of fire, smoke, suppression and evacuation

## PROGRAMS

### Major

- Fire Protection Engineering Major (<https://academiccatalog.umd.edu/undergraduate/colleges-schools/engineering/fire-protection-engineering/fire-protection-engineering-major/>)

## ADVISING

Advising is required for all undergraduate students each semester prior to registering for classes. Please refer to the academic advising section of our website for more information, available at: <http://fpe.umd.edu/undergraduate/current-students/advising-support/>.

## OPPORTUNITIES

### Undergraduate Research Experiences

Many FPE undergraduates perform original research under the direction of a faculty member. These include analytical, experimental, and computational studies. The topics are chosen in discussions between the student and a faculty member. Students can perform research as a volunteer, for pay, or for credit (e.g., ENFP429 or ENFP489).

### Fieldwork Opportunities

Information about fieldwork and summer employment is available in the department office, or visit <http://fpe.umd.edu/careers/>.

## Internships

Information about internships is available in the department office, or visit <http://fpe.umd.edu/careers/>.

## Co-op Programs

Information about co-op employment is available in the department office, or visit <http://fpe.umd.edu/careers/>.

## Honors Program

Qualified students in the department are eligible for participation in the Clark School's Engineering Honors Program (<https://eng.umd.edu/engineering-honors-program/>) and may be invited to the Salamander Honorary Society of the Department of Fire Protection Engineering.

## Student Societies and Professional Organizations

The University of Maryland student chapter of the Society of Fire Protection Engineers is an active professional society open to all interested FPE students. The department honor society, Salamander, is open to academically eligible juniors and seniors. Student membership in the National Fire Protection Association is also available. Information on these organizations may be obtained from the department office or at <http://fpe.umd.edu/undergraduate/current-students/student-groups/>.

## Scholarships and Financial Assistance

Numerous scholarships and grants are available to students in the department from organizational and corporate sponsors. Information is available on eligibility, financial terms, and retention criteria in the department office. The majority of the scholarships are for junior and senior students, but some scholarships are available for first- and second-year students. Additional information is available at <https://fpe.umd.edu/undergraduate/prospective-students/scholarships> (<https://fpe.umd.edu/undergraduate/prospective-students/scholarships/>).

In addition, the Office of Student Financial Aid (OSFA) administers all types of federal, state, and institutional financial assistance programs and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. For more information, visit: <http://financialaid.umd.edu>.

## Awards and Recognition

Academic achievement awards are sponsored by the department, student and professional societies along with the honor society. These awards are presented at various department events and also at the annual A. James Clark School of Engineering Honors and Awards ceremony. Eligibility criteria for these awards are available in the department office.

## Academic Programs and Departmental Facilities

Our laboratories provide hands-on experience with standardized ASTM test procedures, more fundamental experiments, and large scale burn tests. Our computer laboratory has workstations enabled with the latest software for modeling fires, structures, and human behavior. Our student lounge is frequently used for student meetings and study sessions.