

# Eastern Kentucky University's Program of Distinction: Highlighting Research within the College of Justice and Safety



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Eastern Kentucky University's College of Justice and Safety was chosen in 1998 to become the Program of Distinction- a legacy that has continued to 2017. The awards have allowed the College of Justice and Safety to expand with new technology, more faculty and students, provided scholarships for faculty fellowship and student research, and has allowed ECU to include more majors in the college of Justice and Safety. Three of these programs, listed below, provide a unique Bachelor's of Science degree within the fire field. Not only can students earn their B.S., they can research original ideas pertaining to each of their majors. They have the ability to present and publish their research, which follows them after college, further adding to their unique expertise in the fire field. All three are IFSAC accredited, and the engineering program is ABET accredited as well. All of this due to the resources provided by the Program of Distinction- an award for exceptional colleges.



## Fire, Arson, and Explosion Investigation



The Fire, Arson, and Explosion Investigation program provides a wide range of hands-on knowledge to become an expert on investigating the causes of fires and explosions. Students learn about the entire fire, arson and explosion investigation process from the dynamics of how fire behaves and how to process the crime scene, to the principles of criminal investigations and case preparation. Students learn fire/explosion scene reconstruction, chemistry, forensic photography, report writing, and testifying in a court of law. An internship/co-op provides students a way to decide whether they want to go into the Federal sector, public sector, or private sector upon completion of the program.

Students are encouraged to do original research on a topic of their choosing with the assistance of a fire professor. Research currently being covered includes:

- Wildland Fire Investigation
- Scent Detection Animals
- Post-Fire Analysis of Electrical Receptacles
- Heat and Flame Vector Analysis



## Fire Protection & Safety Engineering Technology

The Fire Protection and Safety Engineering Technology program provides students with the knowledge to investigate fire damage, research why protective measures failed, and identify how more effective fire prevention methods can be developed and designed. This program places an emphasis on building protection including sprinkler systems, water hydraulics, fire alarm control panels, and smoke detector placement, all of which are associated with fire protection design and management. System safety analysis is conducted in residential, commercial, and industrial buildings. There is a wide array of internships and co-ops available to students within the major.

Research currently covered in this field of study include:

- Backdraft



Eastern Kentucky University provides students with various opportunities to conduct research. Other topics researched by students in the fire program include:

- Ignition potential of common fuels by residential electric cooktops
- Recoverable percentage of improvised explosive devices
- Analysis of ignition potential of radiant heaters
- Analysis of recoverable arcs in the field
- Effective use of portable fire extinguishers
- Recoverable evidence of high resistant connections in receptacles



## Fire Protection Administration



The Fire Administration program is one of only a few programs in the country dedicated to the fire science field. The Fire Administration program is designed to provide students with a background in fire science, fire prevention, fire protection principles, as well as the administrative knowledge they'll need to be a leader in the fire services profession. This degree primes students to work in all aspects of the fire prevention field, from firefighter to Chief. Students are prepared to handle critical fire related incidents through education, training, community outreach, and prevention.

Students in this field have researched:

- Firefighter Fit Training



References: <http://fireandsafety.eku.edu>  
<http://justice.eku.edu/program-distinction>