

FIRE SCIENCE ASSOCIATE OF SCIENCE PROGRAM OF STUDY

Program Statement

The mission of the Fire Science program is to provide safe, progressive, and standards-based firefighting education and training to future and current fire and emergency services personnel.

The Fire Science program values diversity, including diversity of thought, understanding that populations are best served when fire and emergency services organizations reflect the diversity of the community.

The Fire Science program is concerned with developing leadership and followership skill and ability, providing students with principles to lead positive change in fire and emergency services.

Nationally, fire and emergency service organizations are facing unprecedented challenges. As such, Fire Science students will be encouraged to think critically and creatively about solving problems. Students will be challenged to think from divergent and contrarian perspectives.

Healthy fire and emergency services personnel are essential to community safety. A strong emphasis on firefighter resilience and community resilience are benchmarks of the Fire Science program.

Ultimately, students in the Fire Science program will gain a broad educational background in fire and emergency services, preparing them for several points of entry in the fire and emergency services fields. Current fire and emergency services personnel will enhance their knowledge, skill, and ability and will be prepared for promotional opportunities and leading crews safely.

Student Expectations

- Honest with themselves, their team, and the public
- Compassionate and kind in caring for those they serve
- Mentally, emotionally, and physically healthy and balanced
- Strong team players who enjoying working as members of a crew
- Hands-on doers who are comfortable and happy being outdoors
- Stress tolerant and able to work in dangerous and changing situations
- Willing to risk their lives, in a highly calculated manner, to save "savable" lives

See our website at www.msubillings.edu/citycollege/programs/ProgFireScience.htm (<http://www.msubillings.edu/citycollege/programs/ProgFireScience.htm>)

Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate safe, standards-based, entry-level firefighting skills.
- Demonstrate leadership and influence to promote the mission of fire and emergency services and lead change in the fire service.
- Create a personal firefighter resilience portfolio for fire and emergency services work.
- Demonstrate application of National Incident Management System (NIMS) and Blue Card Incident Command to various emergency incidents.
- Analyze modern, research-based fire behavior studies in structural firefighting operations.
- Apply principles of firefighter safety, air management and crew-resource management to fire and emergency services.

- Apply risk assessment techniques to hazardous materials incidents and safely control, contain, and confine hazardous materials while wearing chemical protective equipment.
- Apply human factors principles and National standards to Wildland firefighting incidents.
- Develop a proactive and mission-based fire prevention, inspection, and public education mindset.
- Apply instructional technique and learning theory to training environments in fire and emergency services.

Required Courses

Code	Title	Credits
General Education Requirements (https://catalog.msubillings.edu/cc/general-education-requirements/)		31
Students should consult with an academic advisor before registering for General Education courses.		
Required Technical Courses		
FIRE 106	Wildland Firefighting	3
FIRE 115	Firefighter I Foundations	3
FIRE 119	Fire Service Ethics	2
FIRE 130	Firefighter Ldrshp & Influence	3
FIRE 131	Fire Apparatus and Hydraulics	3
FIRE 180	Incident Command	3
FIRE 201	Firefighter Resilience	3
FIRE 270	Fire Prevention	3
FIRE 275	Fire Service Instructor	3
TRID 160	Hazrdz Mtrl Tech Gen Trng	3
Subtotal		29
Total Minimum Credits		60

It is highly recommended that all students take Emergency Medical Technician (EMT) training before graduation.

Suggested Plan of Study

Code	Title	Credits
First Semester		
FIRE 115	Firefighter I Foundations	3
FIRE 130	Firefighter Ldrshp & Influence	3
Gen Ed Courses		9
Total		15
Second Semester		
FIRE 275	Fire Service Instructor	3
FIRE 106	Wildland Firefighting	3
FIRE 119	Fire Service Ethics	2
Gen Ed Courses		7
Total		15
Third Semester		
FIRE 131	Fire Apparatus and Hydraulics	3
FIRE 270	Fire Prevention	3
Gen Ed Courses		9
Total		15
Fourth Semester		
FIRE 201	Firefighter Resilience	3
FIRE 180	Incident Command	3

TRID 160	Hazrdz Mtrl Tech Gen Trng	3
Gen Ed Courses		6
Total		15