ASSOCIATE OF APPLIED SCIENCE IN FIRE SCIENCE

The Fire Science Program is designed to provide entry level and advanced education for those students seeking a career in fire and emergency services, as well as current practitioners seeking career advancement. Students completing the Fire Science Program will earn an Associate Degree. The program is delivered through an on-line modality, offering maximum flexibility and access, and explores topics such as, building construction, incident mitigation practices, fire behavior, fire prevention, incident command and control, and firefighter health and safety. The program provides additional areas of study such as written communications, sociology, and organizational behavior to ensure students are prepared for success in the contemporary fire and emergency services.

COURSE	TITLE	S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
MATH 2623	Quantitative Reasoning	3-5
or MATH 2623C	Quantitative Reasoning with Co-Requisite Support	
PSYC 1560	General Psychology	3
PHIL 2625	Introduction to Professional Ethics	3
SOC 1500	Introduction to Sociology	3
FIRE 1501	Introduction to Fire and Emergency Services	3
FIRE 1520	Public Sector Community Relations and Customer Service	3
FIRE 1511	Building Constructions for Fire and Life Safety	3
FIRE 1504	Fire Prevention	3
FIRE 1521	Combustion Processes and Fire Behavior	3
FIRE 1505	Occupational Safety and Health for Emergency Services	3
FIRE 1503	Fire Protection and Detection Systems	3
FIRE 2601	Fire Service Hydraulics	3
FIRE 2602	Legal Aspects of Emergency Services	3
FIRE 2603	Principles of Fire and Emergency Services Administration	3
FIRE 2640	Emergency Services Safety and Survival	3
FIRE 2620	Fire Ground Strategy and Tactics	3
FIRE 2630	Fire Investigation Methods	3
FIRE 2631	Hazardous Materials Operations and Command	3
Total Semester Hours		**64-68**

Upon successful completion of the program, the graduate will:

- Describe basic principles of fire protection and emergency services, including public fire protection, fire department resources, fire department structure, career opportunities, codes and standards, and professional development.
- Analyze the principles of fire behavior and combustion, including the elements of combustion, basic chemistry and measurements, and fuel type characteristics.
- Demonstrate knowledge of building construction types and the associated impact by incidents of unwanted fire; including fire growth, fire spread, and the influence on structural stability and collapse.
- Identify the principles of fire prevention and community risk reduction, including the influence of codes and standards, fire protection engineering technology, and enforcement methodologies.
- Describe the legal aspects of fire and emergency services, including the legal system, types of laws, contracts, civil rights, employee safety, and employment relationships.
- Comprehend the principles of occupational safety, survival, and health in fire and emergency services, including a culture of safety, risk management, wellness standards, and elements if incident safety.
- Demonstrate knowledge of firefighting tactics and strategy, including incident command and control, incident Management systems, firefighter safety, company operations in various occupancies, and post-incident analysis.
- Describe the principles of fire and emergency services leadership and management, including fire officer responsibilities, personnel management, physical resource management, fiscal management, employee relations, employee training, and employee safety.

The Fire Science Program is recognized by the United States Fire Administration (USAF) as a Fire and Emergency Services Higher Education Program (FESHE). All FESHE approved courses provide students with an opportunity to earn a Certificate of Course Completion from the USFA and the Federal Emergency Management Agency.