

FIRE SCIENCE - ASSOCIATE OF APPLIED SCIENCE (AAS)

Description

The Fire Science Associate of Applied Science is designed for students seeking a career in the fire service industry and for those who want to upgrade their skills for current fire service employment.

The program is accredited by the International Fire Service Accreditation (IFSA), the Council for Higher Education Accreditation (CHEA), and the Department of Public Safety Standards and Training (DPSST). Wildland fire courses are certified by the National Wildfire Coordinating Group (NWCG).

Program Learning Outcomes

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

1. Use terminology, concepts, principles, and theories of the disciplines and professions that comprise fire protection agencies.
2. Demonstrate safe, standards-based, basic and essential firefighter skills.
3. Analyze and apply measures to safely resolve problems in areas of fire suppression, hazardous materials, rescue situations, fire prevention, and disaster management.
4. Evaluate various fire behavior components in the structure and wildland fire environment.
5. Model the principles of teamwork, professional conduct, ethics, and leadership as they relate to management, respect, relating to others, and unity of effort in the fire service.

Entrance Requirements

Academic Entrance Requirements

Recommended:

- Completion of WR 065 Rhetoric and Critical Thinking II or higher or minimum placement Wr/Comm Level 7
- Completion of MTH 060 Beginning Algebra or higher or minimum placement Math Level 14
- High school diploma or GED

Other Entrance Requirements

Required:

- Students must be 18 or older for state and national testing for EMT and affiliation with a fire agency. Students do not need to be 18 to begin taking structural fire courses.
- All students seeking enrollment in the EMT course and/or agency affiliation that requires practical experience will have to pass a criminal history check (CHC) as a condition of their acceptance into a medical, fire, or other facility for training. Students who do not pass the CHC may not be eligible to complete training at affiliated sites, to sit for licensure or certification exams, or to be hired for some professional positions. Students who believe their personal history may interfere with their ability to complete the program of study or to obtain licensure or certification in their chosen field should contact the appropriate state board or the program director.
- Complete a 10 panel urine drug screen with Verified Credentials, Inc. With the exception of certain prescribed medications, students with a positive drug screen, which prevents them from attending clinical, will

be disqualified from entering the program. Please see the [program page](#) and/or program handbook for more information.

Additional Program Costs (Beyond Standard Tuition/Fees and Textbooks)

Material Costs

Required:

- CPR for Healthcare Provider card (must remain current throughout EMT class): \$55
- Background check, immunization upload, and 10-panel drug screen: approximately \$110
- Immunizations: \$20 to \$200
- State certification testing and National Registry test: \$170 to \$350
- Materials (boots, ear protection, gloves, etc.): \$200 to \$350

Course Requirements

Course	Title	Credits
Core Courses		
EMT 151	Emergency Medical Technician Part A	6
EMT 152	Emergency Medical Technician Part B	6
FIRE 103	Fire and EMS College Success	1
FIRE 104	Introduction to Emergency Services	4
FIRE 105	Firefighter Safety & Survival	3
FIRE 110	Building Construction for Fire Personnel	3
FIRE 112	Public Education and Fire Prevention	3
FIRE 114	Fire Codes and Ordinances	3
FIRE 120	Fire Protection Systems	3
FIRE 123	HazMat Awareness & Operations	3
FIRE 125	Firefighter Type II Training	3
FIRE 130	Rescue Practices	3
FIRE 175	NFPA Firefighter 1 Academy	7
FIRE 205	Fire Behavior & Combustion	3
FIRE 210S	Structure Fire Investigation	2
FIRE 232	Fire Protection Hydraulics and Water Supply	4
FIRE 255	Wildland Interface & Tactical Decision Simulations	2
FIRE 265	Fire and Emergency Service Administration	3
FIRE 275	Tactics & Strategies	3
Fire Science Technical Electives:		9
AH 111	Medical Terminology I	
EMT 170	Emergency Response Communication/Documentation	
EMT 171	Emergency Response Patient Transport	
EMT 195	Crisis Intervention for the Emergency Medical Provider	
Any course with a FIRE prefix that is not part of the core curriculum		
Other Required Courses		
Choose one course from the following:		3-4
AH 115	Cultural Responsiveness in Allied Health	
BA 178	Customer Service	

BA 285	Business Human Relations	
COMM 218	Interpersonal Communication	
COMM 219	Small Group Communication	
HS 208	Multicultural Issues in Human Services	
COMM 111	Fundamentals of Public Speaking	4
HHP 242	Stress Management	3
or HHP 266	Nutrition for Health	
or HHP 295	Health and Fitness	
Elective (choose one course from below):		3-4
ANTH 103	Cultural Anthropology	
BI 234	Microbiology	
CJ 100	Survey of the Criminal Justice System	
OL 244	Psychology of Risk and Adventure	
PSY 201	Mind and Brain	
PSY 202	Mind and Society	
PSY 216	Social Psychology	
SOC 201	Introduction to Sociology	
MTH 105	Math in Society (or choose one course from the foundational requirements math list.)	4
WR 121	Academic Composition	4
I-100 FEMA		
1-200 FEMA		
1-700 FEMA		
1-800 FEMA		
EMT Basic Oregon Certification		
Total Credits		95-97

Advising Notes

The Fire Science AAS requires hands-on training in fire and emergency medical skills and NFPA Firefighter I certification, which requires a significant amount of on-the-job training by joining a fire agency that requires students to work with and around mechanical equipment, ropes, fire pumps, fire hose and appliances, ladders, various apparatus and hand tools (both manual and powered). Most local fire agencies have student and volunteer positions. Students must apply and compete for these positions. Passing a written and physical agility exam is required for acceptance into these positions. Students desiring to complete a degree in Fire Science and Paramedicine must follow a specific course of study. Please see the program director for more information.

The AAS degree is designed for students planning to enter their chosen career upon graduation. Often only selected credits are considered transferable to public or private baccalaureate institutions. The Fire Science AAS has an [articulation agreement](#) with Eastern Oregon University.

Prior to taking the emergency medical technician exam, students must answer background information questions concerning felony convictions, any regulatory discipline, ethical violations, and mental competence. For more information, contact the program director at 541-383-7404.

The following are required for graduation in the Fire Science AAS and are only obtainable through affiliation in a fire agency:

- NFPA Firefighter I
- NFPA Hazmat Awareness & Operations
- I-200 FEMA or NWCG certified course

Upon Completion of EMT 151 Emergency Medical Technician Part A and EMT 152 Emergency Medical Technician Part B, students must pass the National Registry of EMTs written and practical exams. Currently certified students do not need to retake the courses for the degree.

Students must hold a current EMT or higher Oregon certification for graduation with a Fire Science AAS degree.

Performance Standards

- Academic Requirements:
 - Students must have a 2.0 cumulative GPA to earn a COCC certificate or degree.
 - All courses must be completed with a grade of C or higher.
- Additional Requirements:
 - Many courses require students to undergo drug screening, background check and/or immunization verification with a vendor approved by Central Oregon Community College prior to enrollment; refer to individual classes in the schedule or the program director for more information.

Sample Plan

First Year

Fall		Credits
FIRE 103	Fire and EMS College Success	1
FIRE 104	Introduction to Emergency Services	4
FIRE 105	Firefighter Safety & Survival	3
FIRE 123	HazMat Awareness & Operations	3
FIRE 175	NFPA Firefighter 1 Academy	7
Credits		18

Winter

EMT 151	Emergency Medical Technician Part A	6
FIRE 110	Building Construction for Fire Personnel	3
FIRE 112	Public Education and Fire Prevention	3
FIRE 114	Fire Codes and Ordinances	3
FIRE 125	Firefighter Type II Training	3
Credits		18

Spring

EMT 152	Emergency Medical Technician Part B	6
FIRE 120	Fire Protection Systems	3
FIRE 130	Rescue Practices	3
MTH 105	Math in Society (or choose one course from the foundational requirements math list.)	4
Credits		16

Second Year

Fall		Credits
COMM 111	Fundamentals of Public Speaking	4
FIRE 205	Fire Behavior & Combustion	3
WR 121	Academic Composition	4
Fire Science Technical Elective:		3
AH 111	Medical Terminology I	
EMT 170	Emergency Response Communication/Documentation	
EMT 171	Emergency Response Patient Transport	

EMT 195	Crisis Intervention for the Emergency Medical Provider	
Any course with a FIRE prefix that is not part of the core curriculum		

Credits 14

Winter

FIRE 255	Wildland Interface & Tactical Decision Simulations	2
FIRE 265	Fire and Emergency Service Administration	3
Fire Science Technical Elective:		3

AH 111	Medical Terminology I	
EMT 170	Emergency Response Communication/Documentation	
EMT 171	Emergency Response Patient Transport	
EMT 195	Crisis Intervention for the Emergency Medical Provider	

Any course with a FIRE prefix that is not part of the core curriculum

Choose one course from the following: 3-4

AH 115	Cultural Responsiveness in Allied Health	
BA 178	Customer Service	
BA 285	Business Human Relations	
COMM 218	Interpersonal Communication	
COMM 219	Small Group Communication	
HS 208	Multicultural Issues in Human Services	

Choose one of the following: 3

HHP 242	Stress Management	
HHP 266	Nutrition for Health	
HHP 295	Health and Fitness	

Credits 14-15

Spring

FIRE 232	Fire Protection Hydraulics and Water Supply	4
FIRE 275	Tactics & Strategies	3
FIRE 210S	Structure Fire Investigation	2
Fire Science Technical Elective:		3

AH 111	Medical Terminology I	
EMT 170	Emergency Response Communication/Documentation	
EMT 171	Emergency Response Patient Transport	
EMT 195	Crisis Intervention for the Emergency Medical Provider	

Any course with a FIRE prefix that is not part of the core curriculum

Elective (choose one from the following): 3-4

ANTH 103	Cultural Anthropology	
BI 234	Microbiology	
CJ 100	Survey of the Criminal Justice System	
OL 244	Psychology of Risk and Adventure	
PSY 201	Mind and Brain	
PSY 202	Mind and Society	
PSY 216	Social Psychology	

SOC 201	Introduction to Sociology	
Credits		15-16
Total Credits		95-97