



FIRE-111 – Hazardous Materials Awareness

Fire Services

Effective Term & Year: Fall 2025

Course Outline Review Date: 2030-04-01

Program Area: Fire Services

Description:

This course complies with the standards set by Chapter 5 of the 2022 edition of the National Fire Protection Association's 470 Hazardous Materials/Weapons of Mass Destruction (WMD) Standard for Responders. The course prepares people who may, in the course of their duties, encounter an emergency involving hazardous materials or weapons of mass destruction (WMD). Students learn to recognize the presence of hazardous materials, protect themselves, call for trained personnel, and secure the area. The goal of this course is to enable those on the scene of a hazardous materials or WMD incident to apply essential knowledge in a safe and effective manner.

Program Information:

This course is a required course for the Fire Training Certification program. It is also delivered as a standalone course or as a part of a specialized contract training program.

Delivery Methods: Hybrid – On-campus (Face-to-Face) and Online, On-campus (Face-to-Face), Online

Credit Type: College of the Rockies Credits

Credits: 0.5

Instructional Activity and Hours:

Activity	Hours
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Classroom, Directed Studies or Online Instruction	8
Seminar/Tutorials	
Laboratory/Studio	
Practicum/Field Experience	
Co-op/Work Experience	
Other	
Total	8

Course Requisites:

None

Prior Learning and Recognition: Yes

Students are able to request formal recognition of their prior learning or experience outside the classroom. Challenge examination, portfolio-assisted assessment, work-based assessment or a combination of assessments that is appropriate to identify, assess, and recognize prior skills, competencies, and knowledge to achieve course credit. Tuition fees apply, refer to Policy [2.5.5 Prior Learning Assessment and Recognition \(PLAR\)](#) or contact an education advisor for more information.

Course Transfer Credit:

For information about receiving transfer credit for courses taken at either British Columbia or Alberta institutions, please see <https://www.bctransferguide.ca/> or <https://transferalberta.alberta.ca>. For more transfer credit information, please visit <https://www.cotr.bc.ca/Transfer>

All requests for course transfer credit from institutions in British Columbia or elsewhere should go to the College of the Rockies Enrolment Services office.

Textbook Resources:

Textbook selection varies by instructor and may change from year to year. At the Course Outline Effective Date, the following textbooks were in use:

Jones & Bartlett, *Hazardous Materials Awareness and Operations*, Third Edition

Please see the instructor's syllabus or check COTR's online text calculator <https://textbook.cotr.bc.ca/> for a complete list of the currently required textbooks.

Learning Outcomes:

Upon the successful completion of this course, students will be able to perform the duties of an Awareness Level Trained Emergency Responder according to the criteria set by the National Fire Protection Association, Standard NFPA 1072:

- analyse incidents to detect the presence of hazardous materials/weapons of mass destruction (WMD);
 - identify and collect basic hazard and response information from relevant sources; and
 - implement protective actions and notification processes consistent with the governing authority and sources.
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Course Topics:

The order in which course topics are delivered may vary in order to accommodate student interests, prior knowledge, and complementary or co-delivered training courses.

- Distinguish between hazardous materials incidents and other emergencies
- Describe the various types of hazardous materials hazards
- Explain how hazardous materials enter the body
- Describe North American hazardous materials regulations and definitions
- Identify seven clues to the presence of hazardous materials
- Understand the various types of monitoring and detection devices
- Interpret representative shipping papers and material safety data sheets
- Explain how to identify terrorist attacks and illicit laboratories
- Discuss predetermined procedures and emergency response plans
- Describe notification requirements
- Obtain information about a hazardous materials using the Transport Canada *Emergency Response Guidebook*
- Describe isolation and discuss denial of entry
- Discuss the reasons for, and the effects of, terrorist incidents

See instructor syllabus for the detailed outline of weekly readings, activities and assignments.

Evaluation and Assessments

Assessment Type: On-Campus (face-to-face) and Online, or Hybrid

Assessment Type	% of Total Grade
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Written Exam	50%
Skills Assessment	50%
Total	100%

Grade Scheme

COM	NCG
Completed to the defined standard – 70% and higher	No credit granted – less than 70%

Pass requirements: A passing grade must be achieved on all evaluation elements to receive a “COM” grade in this course.

Evaluation Notes: All evaluation components must be submitted to pass the course.

Evaluation Notes Comments:

A grade of COM is awarded for a minimum of 70% on all theory-based tests and a pass on all practical assessments.

The theory portion of the course is assessed with a written test. Students must achieve a minimum mark of 70%.

The practical skills portion of the course is assessed on a pass/fail basis. Students must earn a passing grade on each of the skills tests.

A passing grade is required in both theory and practical skills components in order to earn credit for the course.

All courses (whether credit-bearing or continuing education courses) must be passed or marked “complete” according to the criteria listed before the student can be awarded the Fire Services Training Certificate.

Exam Attendance:

Students must attend all scheduled exams at the appointed time and place. Instructors may approve an alternate exam to accommodate an illness or personal crisis. Department heads will consider other written requests. Any student who misses a scheduled exam without prior approval will receive a “0” on the exam.

Academic Policies:

College of the Rockies policies related to courses can be found at <https://cotr.bc.ca/about-us/college-policies/> and include the following:

- Policy 2.1.4 Course Audit
 - Policy 2.4.1 Credential Framework
 - Policy 2.4.3 Students with Documented Disabilities
 - Policy 2.4.4 Student Rights, Responsibilities and Conduct
 - Policy 2.4.8 Academic Performance
 - Policy 2.4.9 Student Feedback and Concerns
 - Policy 2.4.11 Storage of Academic Works
 - Policy 2.5.3 Student Appeal
 - Policy 2.5.5 Prior Learning Assessment and Recognition (PLAR)
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Course Changes:

The College of the Rockies updates course outlines regularly to meet changing educational, employment and marketing needs. The instructor will notify students in writing of any updates to this outline during the semester. The instructor reserves the right to revise, add or delete material while meeting the learning outcomes of this course outline.