



Fire Training Certification Program (FTC)

Program Outline

COURSE IMPLEMENTATION DATE: August 2005
OUTLINE EFFECTIVE DATE: September 2023
COURSE OUTLINE REVIEW DATE: April 2028

GENERAL COURSE DESCRIPTION:

The Fire Training Certificate program is a 23-week, full-time program designed to prepare students for entry level positions in Fire Fighting, Industrial Safety, and Medical First Responder positions. Through realistic case-based training, students develop the skills needed to meet the challenges and risks of these demanding occupations. Students may also pursue a multitude of employment opportunities, such as those in the oil and gas, forestry and mining industries.

Program components provide students with the opportunity to earn recognition for a number of essential fire services certifications. Courses which adhere to the standards of the National Fire Protection Association (NFPA) are accredited by the National Board of Fire Service Professional Qualifications (the Pro Board). Additional courses earn other, highly relevant Fire Services industry certifications.

Program Information: Upon successful completion of the program, students receive a College of the Rockies Fire Training Certificate, as well as Pro Board certification for all applicable NFPA-based courses. Industry certifications are provided for other related courses. Graduates may qualify for admission to the Fire Services Management Diploma program.

Delivery: This course is delivered face-to-face.

Time for this program: 23 weeks

Typical Structure of Instructional Hours:

Instructional Activity	Duration
Theory based training (*approximately hours)	463
Practical shop floor training (*approximately hours)	318
Total Contact Hours	781

Practicum Hours (if applicable):

Type of Practicum	Duration
On-the-job Experience	N/A
Formal Work Experience	N/A
Other	N/A
Total	

*Exact hour allotments may vary.

Course Outline Author or Contact:

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APPROVAL SIGNATURES:

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EDCO

Valid from: September 2023 – April 2028

Education Council Approval Date

COURSE PREREQUISITES AND TRANSFER CREDIT:

Prerequisites:

- Secondary school graduation or equivalent

Non Academic Requirements:

- 18 years of age or older
- BC Class 5 driver's license or equivalent, valid at time of application
- Completion and submission of Fire Training Certificate Program package
- Meet a minimum physical fitness standard in areas of strength, endurance, and mobility – the testing criteria are determined by the College in consultation with COTR's Fire Advisory Committee
- Complete a written aptitude exam
- Complete a comprehensive interview

Flexible Assessment (FA):

Credit can be awarded for this program through FA

Yes

No

Learners may request formal recognition for flexible assessment at the College of the Rockies through one or more of the following processes: External Evaluation, Worksite Assessment, Demonstration, Standardized Test, Self-assessment, Interview, Products/Portfolio, Challenge Exam. Contact an Education Advisor for more information.

Transfer Credit: For transfer information within British Columbia, Alberta and other institutions, please visit <http://www.cotr.bc.ca/Transfer>.

Student should also contact an academic advisor at the institution where they want transfer credit.

Prior Course Number: N/A

Textbooks and Required Resources:

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

Texts:

- All required texts are provided.

Other required Resources:

Participants must supply their own:

- Uniform, including station footwear, belt & socks (black)
- Binders, writing paper, pens, pencils etc.

The program will provide:

- The use of all turn-out gear and PPE (Personal Protection Equipment) for the duration of the program

Note: Textbooks are subject to change from year to year to maintain the most current standards Learning Outcomes.

SPECIAL NEEDS:

A high level of physical ability is required to work in a Fire Fighting or Medical First Responder position (see Program Pre-requisites for more information). Any student who feels that s/he may need accommodation for other types of disability (e.g. learning disabilities) is encouraged to contact Student Services.

PROGRAM DESIGN:

This program includes 3 kinds of courses:

- A. NFPA based courses: The NFPA (National Fire Protection Association) is the primary source of consensus codes and standards for the Fire Service in North America. The Pro Board is an internationally-recognized organization for accrediting NFPA standards. Successful completion of NFPA-based courses at COTR merits accreditation by the Pro Board and COTR academic credit.
- B. Other Fire Services-related Courses: These courses, though not Pro Board accredited, are recognized with other COTR and/or industry-standard certifications.

- C. Continuing Education courses: These courses add considerable value to the Firefighter’s resume and knowledge base. Although most of these courses result in industry-recognized certification, they do not earn COTR academic credit.

PROGRAM COMPONENT COURSES:

A. NFPA based courses

FIRE 111: Hazardous Materials Awareness

This course complies with the standards set by NFPA 1072 (Awareness) and 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.

FIRE 112: Hazardous Materials Core Operations Level: with Product Control and Personal Protective Equipment Mission Specific Competencies

This course complies with the standards set by NFPA 1072 – (Chapter 5 Operations and Chapter 6 Operations Mission Specific 6.2 and 6.6.) This course builds on the knowledge developed in *FIRE 111: Hazardous Materials Awareness*. At this (Responder) level, students learn the skills and additional knowledge necessary to respond to hazardous materials or weapons of mass destruction (WMD) incidents and protect nearby persons, the environment, and property from the effects of the release. Note: before being certified for Hazardous Materials (NFPA 1072) at the Operations level, candidates must meet all competencies at the NFPA 1072 (Chapter 4) HazMat Awareness level.

FIRE 118: Rope Rescue Technician Level I

This course complies with the standards set by NFPA 1006 (Ropes Level 1) and covers the fundamentals of rope rescue techniques, along with the skills required to participate in a rope rescue operation. Students learn to identify hazards, use equipment, and apply limited techniques to perform technical rescue operations. Students also learn about relevant safety standards which apply to rope rescues. This course emphasizes the inherently dangerous aspects of technical rescue and the rigorous activities which must be performed in adverse conditions.

FIRE 120: Vehicle Technical Rescuer Level I

This course complies with the standards set by NFPA 1006 (Vehicles Level 1). The curriculum addresses the rescue skills appropriate to vehicle or machinery events involving common passenger vehicles, simple small machinery, and environments where rescuer intervention does not constitute a high level of risk based upon the environment or other factors. Students learn how to establish scene safety zones, stabilize vehicles and machinery, isolate potentially harmful energy sources, and help to remove and transport a victim to a safe area. This course emphasizes the inherently dangerous aspects of technical rescue and the rigorous activities which must be performed in adverse conditions.

FIRE 123: Industrial Fire Brigade Member - Incipient

This course complies with the standards set by NFPA 1081 (Industrial Fire Brigade Member - Incipient), and covers the general knowledge necessary to understand basic fire behaviour and the skills necessary to function as a member of an Industrial Fire Brigade. Students learn how to operate within an incident management system and emergency response operations plan for a site. Topics include the standard operating and safety procedures for a site, including site-specific hazards. Learning activities include initiating communications, using facility communications equipment to effectively relay oral or written information, responding to alarms, returning equipment to service, and completing incident reports.

FIRE 127: Fire Fighting Practices Level I and II

This course complies with the standards set by NFPA 1001 and provides a foundation of theory and practical skill development for students pursuing a career in the fire services. Topics include the organization of the fire department, standard operating procedures, rules and regulations, safety initiatives, personal protective equipment, tools and equipment, ropes and knots, the chain of command and incident management, fire department communications, and teamwork. The course prepares students for entry-level positions as structural Firefighters, Wildland Fire Suppression Workers and Industrial Safety Officers/Firefighters. The course includes both theory and hands-on activities related to fire safety and emergency response-related skills. Note: before being certified at the Firefighter I level, candidates must have already passed HazMat (NFPA 1072) at the Awareness and Operations Core level: with Product Control and Personal Protective Equipment Mission Specific Competencies. To be certified at the Firefighter II level, candidates must be certified as Firefighter I.

FIRE 128: Confined Space Rescue Technician Level I

This course complies with the standards set by NFPA 1006 (Confined Space Level 1). Students learn to monitor the environment, recognize the hazards of a confined space and identify which hazards can be managed. Basic skills are developed so that students can safely and effectively manage the hazard. Students learn how to properly enter a confined space, clear others from the confined space, and prepare a victim for removal. This course emphasizes the inherently dangerous aspects of technical rescue and the rigorous activities which must be performed in adverse conditions.

Fire 130: Fire Driver Pumper Operator

Upon the successful completion of this course, students will have met the sections required for a Pumping Apparatus Driver/Operator in the NFPA 1002, 2014 and 2017 editions, Standard for Fire Apparatus Driver/Operator Professional Qualifications. Students who successfully complete the certification process will be certified as a Pumping Apparatus Driver/Operator. This is a one-week course. 40 hours of instruction will be delivered face-to-face or combined with online activities, quizzes, and other assessments. 8 hours of certification evaluation will be performed through face-to-face sessions scheduled for a 1-day period at the end of the course.

B. Other Fire Services-related Courses

FIRE 102: Rapid Intervention Awareness

This course prepares students to participate as a member of a rapid intervention crew (RIC), with the goal of rescuing fire fighters who become lost, injured, trapped, incapacitated, or disoriented in the course of an emergency scene or training operation. Course curriculum is based on the objectives as set by NFPA 1407 (Standard for Training Fire Service Rapid Intervention Crews): topics include appropriate search techniques; rescue access; air supply and air management; use of ropes, slings and harnesses for rescue operations; methods to protect and move endangered firefighters; and self-rescue techniques.

FIRE 103: Emergency Scene Traffic Control

This course is designed for emergency service workers who are required to direct traffic at unplanned emergency events, such as crashes, spills, police events or natural disasters that occur on or adjacent to roads. Successful completion of this course earns a certificate from the BC Municipal Safety Association (BCMSA).

FIRE 106: Emergency Vehicle Operation

This course develops driver skills through knowledge of both physics and vehicle dynamics in relation to vehicle operations. Through a progressive series of driving exercises, students experience conditions often experienced while driving at higher speeds and under emergency conditions and learn to respond safely and efficiently to a variety of driving conditions while avoiding potential collision situations. Both mental and physical driving skills are emphasized. Successful completion of this course earns a certificate from the International Association of Professional Drivers (IAPD).

FIRE 113: ICS 100 (Incident Command Systems)

This course introduces the incident Command System and provides the foundation for higher level ICS training. Students learn about the history, features and principles, and organizational structure of the Incident Command System.

FIRE 114: ICS 200 (Incident Command Systems)

ICS 200 builds on the knowledge acquired in ICS 100 (COTR FIRE 113), and defines the unique qualities of ICS as an event or incident management system. This course provides an introduction to leadership and management, delegation of authority and management by objectives, functional areas and positions, briefings, organizational flexibility, and transfer of command within an Incident Command System. The focus is on the management of single resources, and the training needs of personnel who are likely to assume a supervisory position within the ICS.

FIRE 116: First Responder

Comprehensive first aid and CPR skills for professional first responders or those training to become first responders. Course teaches the patient assessment model, cardiopulmonary resuscitation, hemorrhage control, and care for a variety of acute and chronic conditions. Participants will be engaged in dynamic training techniques including video, media presentations, skills demonstrations, practice sessions, discussions and scenarios based on real-life situations. Basic Life Support, Airway Management and Oxygen Therapy course modules are also provided. Successful completion of this course earns a Canadian Red Cross First Responder Certificate valid for 3 years and a Canadian Red Cross Basic Life Support (BLS) Certificate valid for 1 year

FIRE 117: Emergency Services Workplace Preparation

Landing a first job in the Emergency Services sector requires specialized skills and knowledge. This short course helps Fire Services students understand the job application process, write a convincing cover letter and resume, present him/herself favourably during the interview process, and approach aptitude testing with confidence. Students review job ads, identify desirable traits for this vocation, participate in mock interviews, and discuss typical aptitude test questions.

C. Continuing Education courses

PVHE 315: Emergency Medical Responder

The Emergency Medical Responder course is for those already holding either a First Responder or a BC Occupational First Aid Level 3 certificate, and provides the knowledge and skills necessary in an emergency to help sustain life, reduce pain, and minimize the consequences of injury or sudden illness in a pre-hospital setting. It is intended for those providing emergency response: firefighters, law-enforcement officers, paramedics, and workplace responders.

This course meets the Paramedic Association of Canada National Occupational Competency Profile for the practitioner level of emergency medical responder (EMR).

Completion of this course allows students to apply for licensing with the Emergency Medical Assistants Licensing Board (EMALB) and can be used to help gain employment with fire departments throughout British Columbia or on-ambulance as an EMR with the BC Ambulance Service. **Please note** – licensing is a separate process conducted directly by the EMALB.

Prerequisites: Candidates must be 19 years of age and hold a First Responder certificate or a WorkSafe BC Occupational First Aid Level 3 certificate (or equivalent) preferably issued within the previous 6 months;

Pre-course work: Online component, approximately 13 hours, to be completed before the first day of class. The in-person training component is completed over 5 training days plus one day for exam.

PVHE 700: Workplace Hazardous Material Information System (WHMIS)

WHMIS training is required to meet the Federal Hazardous Products Act requirements for handling hazardous materials in the workplace. This is a half-day course.

PVHE 701: Transportation of Dangerous Goods (TDG)

TDG certification is required by Transport Canada for anybody transporting dangerous goods. The course helps students understand shipping documentation, labels and packaging; complete driver documentation and information regarding an accident or emergency. This is a half-day course.

PVIN 131: Airbrakes

This course is a comprehensive study of commercial vehicle air brake systems and a presentation of pre-trip inspection and brake adjustment to prepare for the Motor Vehicle Branch Air Endorsement exam. This 20 hour course requires a valid BC Drivers' License. (Can be taken with a learner's license).

PVNR 107: SPP-WFF 1 Wildland Firefighter Level 1

This course develops sound wildland firefighting observations, suppression techniques, and avoidance of fire entrapment. It is designed for firefighters with structural firefighting experience to apply their learning to the special circumstances of wildland firefighting. The SPP-WFF 1 curriculum is designed by the Office of the Fire Commissioner as part of the Structure Protection Program, and replaces F1-110 (Wildland Fire Observation & Origin Science Protection) and S-215 (Fire Operations in the Wildland Urban Interface). SPP-WFF 1 is a required component in British Columbia intended for Structure Firefighters only, as per the Fire Fighter Playbook. It does NOT replace S-100 for those intending to qualify for employment with Wildland Fire Fighting agencies.

PVNR 125: Basic Chainsaw Operations and Safety

This course, designed for entry-level chainsaw operators, focusses on proper saw maintenance and safe use of chainsaws. The course begins with approximately 4 hours of instructor-led presentation, discussion with group and individual assignments, review of relevant OH&S regulations, hands-on work assignments including essential saw maintenance and correct chain filing, proper use of PPE gear, and procedures and techniques for safe chainsaw operation. Following the classroom session, students spend approximately 4 hours in the field reviewing and implementing procedures learned in the classroom. Fieldwork includes recognition of bucking hazards, discussions of saw binds, and practice using proper bucking techniques. Student learning is assessed by a field examination of each student for basic chainsaw operating competency.

PVNR 170: S100 Basic Fire Suppression & Safety

This course, offered by the British Columbia Forest Service, provides participants with a basic knowledge of the wildland fire suppression organizational structure, the wildland fire environment, suppression and safety procedures and equipment used in British Columbia to effectively and safely respond as a basic wildland firefighter. The two-day training session includes one day of classroom work and one day of field work. *Basic Fire Suppression & Safety* is the minimum training standard required for any person to participate as a wildland fire fighter in the province of British Columbia.

PVNR 174: S185 Fire Entrapment Avoidance & Safety

Fire Entrapment Avoidance & Safety, offered by the British Columbia Forest Service, provides participants with a basic knowledge of fire entrapment avoidance and fire entrapment survival techniques. This 2-3 hour classroom training session is recognized by the BC Ministry of Forests as required training for any person to participate as a wildland firefighter in the province of BC.

COURSES:

Course Section	FIRE Courses (Technical)	Certificate Type	Credit Values
FIRE 127	Fire Fighting Practices Level I and II / NFPA 1001	Pro Board	14
FIRE 111	Hazardous Materials Awareness / NFPA 1072	Pro Board	0.5
FIRE 112	Hazardous Materials at the Core Operations Level: with Product Control & PPE Mission Specific Competencies/NFPA 1072	Pro Board	2
FIRE 118	Rope Rescue Technician Level I / NFPA 1006	Pro Board	2
FIRE 120	Vehicle Technical Rescuer Level I/ NFPA 1006	Pro Board	2
FIRE 128	Confined Space Rescue Technician Level I/NFPA 1006	Pro Board	2
FIRE 123	Industrial Fire Brigade Member - Incipient / NFPA 1081	Pro Board	2
FIRE 130	Fire Driver Pumper Operator	Pro Board	2
FIRE 106	Emergency Vehicle Operation	IAPD	1
FIRE 102	Rapid Intervention (NFPA 1407)	COTR	1
FIRE 103	Emergency Scene Traffic Control	BC Municipal Safety Assn.	0.5
FIRE 113	ICS 100 (Incident Command Systems)	COTR	0.5
FIRE 114	ICS 200 (Incident Command Systems)	COTR	0.5
FIRE 116	First Responder	Canadian Red Cross	2
FIRE 117	Emergency Services Workplace Preparation	COTR	0
			32

Course Section	Skills Competencies/Value Added (ConEd)		Grade Scheme
PVIN 131	Airbrakes	COTR / ICBC	Com/NCG
PVNR 170	S100 Basic Fire Suppression & Safety	COTR	70%
PVNR 174	S185 Fire Entrapment Avoidance & Safety	COTR	70%
PVNR 107	SPP-WFF 1 Wildland Firefighter 1	BC (OFC)	70%
PVHE 701	TDG	COTR	Com/NCG
PVHE 700	WHMIS	COTR	Com/NCG
PVNR 125	Basic Chainsaw Operations and Safety	COTR	Com/NCG
PVHE 315	Emergency Medical Responder	COTR / BC EMA Licensing	Com/NCG

EVALUATION AND ASSESSMENT:

Students must maintain an acceptable level of attendance (as described in the College Policies and Procedures), complete all assigned projects, and pass all exams to successfully complete the program. Assessment processes for courses varies; i.e.

A. NFPA courses:

Assessment of learning for all NFPA courses follows standard testing procedures as defined by the Pro Board Fire Service Professional Qualifications System; i.e.:

NFPA courses	Credits (hours)	Assessment (for all Pro Board certified courses)
FIRE 111 (NFPA 1072): Awareness	0.5 (8)	The theory portion of the course is assessed with a Pro Board-approved 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 achieve mastery on each of the skills as defined by the Pro Board (maximum of 2 attempts). Students must achieve a passing grade for the theory component and demonstrate mastery of all practical components in order to earn credit and be awarded certification.
FIRE 112 (NFPA 1072): Operations	2 (32)	
FIRE 118 (NFPA 1006): Ropes	2 (40)	
FIRE 120 (NFPA 1006): Vehicle	2 (40)	
FIRE 123 (NFPA 1081): Industrial	2 (32)	
FIRE 127 (NFPA 1001) Firefighter 1 & 2	14 (280)	
FIRE 128 (NFPA 1006): Confined Space	2 (40)	
FIRE 130 (NFPA 1001): Fire Driver Pumper Operator	2 (40)	
Total credits/hours:	26.5/512	

B. Other Fire Service-related courses:

Courses	Credits (hours)	Certification	Assessment
FIRE 102 (NFPA 1407): Rapid Intervention Awareness	1 (16)	COTR	COM/NCG: A grade of COM is awarded for: Instructor evaluation of achievement of competency
FIRE 103: Emergency Scene Traffic Control	0.5 (8)	BC Municipal Safety Assn.	A grade of COM is awarded for: Written competency exam (min. score 75%) and practical competency evaluation (100% required)
FIRE 106: Emergency Vehicle Operation	1 (16)	IAPD	COM/NCG: A grade of COM is awarded for: Written test with min. score 80% and practical evaluation assessed on a pass/fail basis
FIRE 113 (ICS 100): Incident Command Systems Level 1	0.5 (8)	ICS/COTR	COM/NCG: A grade of COM is awarded for: Written test with min. score 70%
FIRE 114 (ICS 200): Incident Command Systems Level 2	0.5 (8)	ICS/COTR	COM/NCG: A grade of COM is awarded for: Written test with min. score 70%
FIRE 116: First Responder	2 (46)	Canadian Red Cross	COM/NCG: A grade of COM is awarded for: Written test with min. score 75% and demonstrated competency in practical evaluation

FIRE 117: Emergency Services Workplace Preparation	0 (24)	COTR	COM/NCG: A grade of COM is awarded for: Instructor evaluation of achievement of competency
Total credits/hours:	5.5 /122		

C. Continuing Education courses

Courses	Approx. hours	Assessment
PVHE 315: Emergency Medical Responder	48	COM/NCG A grade of COM is awarded for: minimum score of 80% on written exam; demonstrated competency in practical exam.
PVHE 701: TDG	4	Com/NCG
PVHE 700: WHMIS	4	Com/NCG
PVIN 131: Airbrakes	20	COM/NCG
PVNR 107: SPP WFF 1: Wildland Firefighter 1	7	COM/NCG A grade of COM is awarded for: Minimum combined score of 70% on both written exam (70% of final mark) and successful completion of Practical Field test (30% of final mark).
PVNR 125: Basic Chainsaw Operations and Safety	8	Com/NCG
PVNR 170: S100 Basic Fire Suppression & Safety	16	COM/NCG A grade of COM is awarded for: Minimum combined score of 70% on both written exam (70% of final mark) and successful completion of Practical Field test (30% of final mark).
PVNR 174: S185 Fire Entrapment Avoidance & Safety	3	COM/NCG A grade of COM is awarded for: minimum score of 70% on written test
Total hours:	187	

COM	Completed to defined standard
NCG	No Credit Granted

Completion (COM) is assessed in some courses by a minimum mark on a written test alone or by a combination of written and practical test scores. In other courses, completion is assessed by a holistic estimate by the instructor of the student's mastery of learning outcomes.

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 COTR Fire Services Training Certificate.