

# **PRE-SERVICE FIREFIGHTER EDUCATION AND TRAINING**

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## **Program Outline**

<b>Major:</b>	FIRE
<b>Length:</b>	1 Year
<b>Delivery:</b>	3 Semesters
<b>Credential:</b>	Ontario College Certificate
<b>Effective:</b>	2017-2018
<b>Location:</b>	Barrie
<b>Start:</b>	Fall (Barrie), Winter (Barrie)

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### **Description**

In this program, students gain the knowledge and skills of basic fire science, fire suppression principles and practice, first responder emergency care, and fire prevention and public education. This program also provides students with specialty knowledge in confined space and water and ice rescue.

This three semester program meets the following National Fire Protection Association (NFPA) Standards:

NFPA 1001, Standard for Firefighter Professional Qualifications: Firefighter I and Firefighter II,

NFPA 472, Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents,

NFPA 1006, Standard on Operations and Training for Technical Search and Rescue Incidents.

### **Career Opportunities**

Successful graduates may find employment opportunities in the following areas: professional firefighting, fire inspection, fire prevention and public education, private fire service, Ministry of Natural Resources, and as volunteer firefighters.

### **Program Learning Outcomes**

The graduate has reliably demonstrated the ability to:

- outline and perform the safe operation and wearing of personal protective equipment (PPE);
- describe and practice the proper use of firefighting and emergency response tools and equipment;
- define and apply safe operating principles and practices when responding to emergency situations;
- utilize effective communication skills, both verbally and in writing, using common fire service terminology;
- incorporate social entrepreneurship skills and volunteerism to foster positive social change in the community;
- practice environmental sustainability.

### **External Recognition:**

The Office of the Fire Marshal and Emergency Management (OFMEM) endorses the content of this curriculum.

### **The Program Progression:**

Fall Intake - Barrie

Sem 1	Sem 2	Sem 3
Fall 2017	Winter 2018	Summer 2018

Winter Intake - Barrie

Sem 1	Sem 2	Sem 3
Winter 2018	Summer 2018	Fall 2018

### **Admission Requirements:**

OSSD or equivalent with

- Grade 12 English (C or U)
- Grade 12 Mathematics (C or U)

Mature students, non-secondary school applicants (19 years or older), and home school applicants may also be considered for admission. Eligibility may be met by applicants who have taken equivalent courses, upgrading, completed their GED, and equivalency testing. For complete details refer to: [www.georgiancollege.ca/admissions/policies-procedures/](http://www.georgiancollege.ca/admissions/policies-procedures/)

Applicants who have taken courses from a recognized and accredited post-secondary institution and/or have relevant life/learning experience may also be considered for admission; refer to the Credit Transfer Centre website for details: [www.georgiancollege.ca/admissions/credit-transfer/](http://www.georgiancollege.ca/admissions/credit-transfer/)

**Criminal Reference/Vulnerable Sector Check:**

Placement agencies require an up-to-date clear criminal reference check and vulnerable sector check prior to going out on placement. Students should obtain their criminal reference three months prior to placement; checks conducted earlier may not be considered current. As some jurisdictions require longer lead-time for processing, please check with the program coordinator to ensure you allow for sufficient turn-around time. It is the student's responsibility to provide the completed document prior to placement start.

NOTE: A record of criminal offences, for which a pardon has not been granted, may prevent students from completing their placements, thereby affecting their ability to graduate.

**Additional Information:**

Applicants must have an up-to-date immunization record. Also, a CPR Basic Rescue Certificate (Level C or higher) and Standard First Aid certificate must be maintained throughout the program. Students are required to submit a copy of both certificates prior to program start.

Applicants are expected to attend a group orientation session prior to the beginning of the first semester in September or January semesters.

Physical Fitness: Students must be physically fit to participate. A waiver and informed consent indicating the ability to perform the physical fitness and physical duties is

required for firefighter training. During the orientation process students will be required to confirm that they are not affected by acrophobia (fear of heights) and claustrophobia (fear of confined space). If you are unsure of your health status or phobias, you should consult your doctor prior to entering the program as these may preclude you from gaining employment in firefighting. Students must successfully complete the requirements of the York Firefighter Fitness test or CPAT prior to graduation.

#### Special Considerations

Vision: Uncorrected Visual Acuity should be at least 6/12 (20/40) binocularly (both eyes). Corrected Visual Acuity should be at least 6/6 (20/20) binocularly. There are additional minimum requirements regarding refractive surgery farsightedness (hyperopia), colour vision, depth perception and peripheral vision. No marked degree of color blindness is permitted. Hearing requirements are normal unaided hearing at frequencies of 500 to 4000 Hz measured by audiometer.

A hiring municipality or fire department may have additional special requirements for those entering a career as a firefighter. Students wishing to pursue such careers should ensure that they will be able to meet the physical and educational requirements before enrolling. Potential students with a criminal record will need to discuss their personal situation with college counsellors before enrolling in the program.

#### **Graduation Requirements:**

32 Mandatory Courses

1 Communications Course

#### **Graduation Eligibility:**

To graduate from this program, a student must attain a minimum of 70% for each theoretical fire course and a letter grade of P (Pass) for each practical Fire course.

To graduate from non-fire courses in the program, the passing weighted average for promotion through each semester, and to graduate is 60%. Additionally, a student must attain a minimum of 50% or a letter grade of P (Pass) or S (Satisfactory) in each course in each semester unless otherwise stated on the course outline.

#### Mandatory Courses

FIRE1067 Career Preparation 1

FIRE1068 Introduction to Fire Service

FIRE1069 Firefighter Fitness 1

FIRE1070 Fire Protection Systems and Public Education

FIRE1071 Protective Equipment and Rescue Theory

FIRE1072 Protective Equipment and Rescue Practical

FIRE1073 Ladders, Ropes and Illumination Theory

FIRE1074 Ladders, Ropes and Illumination Practical

FIRE1075 Emergency First Responder 1 Theory  
FIRE1076 Emergency First Responder 1 Practical  
FIRE1077 Fire Grounds Practice and Testing 1  
FIRE1078 Firefighter Fitness 2  
FIRE1079 Fire Control Theory  
FIRE1080 Fire Control Practical  
FIRE1081 Hazardous Materials Awareness Theory  
FIRE1082 Hazardous Materials Awareness Practical  
FIRE1083 Emergency First Responder 2 Theory  
FIRE1084 Emergency First Responder 2 Practical  
FIRE1085 Fire Streams and Hoses Theory  
FIRE1086 Fire Streams and Hoses Practical  
FIRE1087 Loss Control and Fire Cause Determination Theory  
FIRE1088 Loss Control and Fire Cause Determination Practical  
FIRE1089 Technical Rescue Theory  
FIRE1090 Technical Rescue Practical  
FIRE1091 Fire Ground Practice and Testing 2 Practical  
FIRE1092 Hazardous Materials Operations Theory  
FIRE1093 Hazardous Materials Operations Practical  
FIRE1094 Vehicle Rescue and Extrication Theory  
FIRE1095 Vehicle Rescue and Extrication Practical  
FIRE1096 Career Preparation 2  
FIRE1097 Fire Safety Inspections for Firefighters  
FIRE1098 Fire Ground Practice and Testing 3

#### Communications Course

To be selected at time of registration from the College list, as determined by testing.

#### **Course Descriptions:**

FIRE1067 Career Preparation 1 42.0 Hours

This career preparation course provides an overview of the current fire service hiring practices, interviewing procedures, and testing. Learning from professionals with practical experience in the field, students discover how to effectively manage their time by identifying goals, creating semester plans, and recognizing obstacles. They are also given guidance that allows them to prepare and execute an effective plan for their career path and perform mathematical calculations for fire ground operations.

FIRE1068 Introduction to Fire Service 42.0 Hours

This course is the first step in the professionalization process for firefighters in Ontario, providing a general overview of the Ontario fire service. The mission and organization of fire and emergency services, as well as the roles and responsibilities of the employees are discussed. The course focuses on the knowledge, attitudes, and skills required of a

professional firefighter, and emphasizes incident management, communications, legislation, building construction, fire behavior, and firefighter health and safety practices.

#### FIRE1069 Firefighter Fitness 1 42.0 Hours

This practical course provides an overview of the physical training required to be a successful firefighter. Students are introduced to various training regimens that incorporate components of specific Bona Fide Occupational Requirements (BFOR). The fitness tests include simulated job-related assessments, exposing students to techniques that assist them in developing the necessary physical skills to successfully complete the firefighter entrance test.

#### FIRE1070 Fire Protection Systems and Public Education 42.0 Hours

This course introduces students to the equipment that is used in fire detection and protection systems. The leadership and legislative roles of the firefighter as they pertain to performing public education, public relations, public fire prevention, and lifesaving activities are also addressed.

#### FIRE1071 Protective Equipment and Rescue Theory 14.0 Hours

This course covers the purpose and importance of protective clothing used in firefighting, including types, uses, and limitations. Students learn the proper donning of protective clothing and equipment by examining the maintenance, operation, storing, cleaning, inspection, and safety considerations involved. Information gathering, pre-planning, search patterns, victim stabilization and removal, firefighter survival, hazard recognition, and inter-agency co-operation are stressed. Respiratory hazards, limitations of breathing apparatus, and emergency procedures are also covered.

Co-FIRE1072 Protective Equipment and Rescue Practical

#### FIRE1072 Protective Equipment and Rescue Practical 28.0 Hours

This practical course involves the assessment of knowledge and skills concerning protective clothing and equipment, breathing apparatus, and simulated search and rescue techniques to meet the NFPA standards. Students perform operational and emergency procedures for Self Contained Breathing Apparatus (SCBA) usage as well as the care and maintenance of their Personal Protective Equipment (PPE). Students also carry out search patterns and perform patient stabilization and removal.

Co-FIRE1071 Protective Equipment and Rescue Theory

#### FIRE1073 Ladders, Ropes and Illumination Theory 14.0 Hours

This course provides an overview of the basic components of fire ground operations within the structure of an incident management system. Content focuses on firefighter ropes and knots, raising and lowering firefighting equipment, firefighting ladders, and emergency scene illumination.

Co-FIRE1074 Ladders, Ropes and Illumination Practical

**FIRE1074 Ladders, Ropes and Illumination Practical 28.0 Hours**

This practical course explores the basic components of fire ground operations within the structure of an incident management system. Content focuses on fire ground communications using protective clothing, self-contained breathing apparatuses (SCBA), the raising and lowering of firefighting equipment, ladders, and illumination. Students participate in fire ground related operations.

Co-FIRE1073 Ladders, Ropes and Illumination Theory

**FIRE1075 Emergency First Responder 1 Theory 28.0 Hours**

This course introduces emergency patient care in a pre-hospital setting and meets the Paramedic Association of Canada National Occupational Competency Profile for the practitioner level of Emergency Medical Responder (EMR).

Co-FIRE1076 Emergency First Responder 1 Practical

**FIRE1076 Emergency First Responder 1 Practical 14.0 Hours**

This practical course introduces the skills necessary to help sustain life, reduce pain, and minimize the consequences of injury or sudden illness in a pre-hospital setting. This course meets the Paramedic Association of Canada National Occupational Competency Profile for the practitioner level of Emergency Medical Responder (EMR).

Co-FIRE1075 Emergency First Responder 1 Theory

**FIRE1077 Fire Grounds Practice and Testing 1 14.0 Hours**

This course explores the basic components of fire ground operations within the structure of an incident management system. Students focus on fire ground communications, protective clothing, self-contained breathing apparatuses, the raising and lowering of firefighting equipment, ladders, and illumination. Students practice fire grounds-related operations including search and rescue.

**FIRE1078 Firefighter Fitness 2 42.0 Hours**

In this course students are exposed to additional training techniques that further develop the physical skills needed to meet Bona Fide Occupational Requirements (BFOR) for entrance into the fire service.

P- FIRE1069 Firefighter Fitness 1

**FIRE1079 Fire Control Theory 14.0 Hours**

This course focuses on fire control and fire suppression techniques such as fire streams, foam, and the use of portable extinguishers involving the following fire classes - Class A (wood), Class B (flammable liquids), Class C (electrical), and Class D (flammable metals).

Co-FIRE1080 Fire Control Practical

**FIRE1080 Fire Control Practical 28.0 Hours**

In this course students practise fire control and fire suppression techniques involving fires in the following classes - Class A (wood), Class B (flammable liquids), Class C (electrical), and Class D (flammable metals).

Co-FIRE1079 Fire Control Theory

FIRE1081 Hazardous Materials Awareness Theory 14.0 Hours

This course provides an overview of hazardous materials which includes particularly dangerous goods such as chemical, biological, radiological, nuclear, or explosive (CBRNE) materials. Students examine the role and responsibilities of the firefighting team regarding environmental hazards and rescue operations at the Awareness level according to NFPA Standard 472.

C- FIRE1082 Hazardous Materials Awareness Practical

FIRE1082 Hazardous Materials Awareness Practical 14.0 Hours

Students enhance their understanding of hazardous materials and develop skills regarding environmental hazards and associated rescue operations at the Awareness level according to NFPA Standard 472.

Co-FIRE1081 Hazardous Materials Awareness Theory

FIRE1083 Emergency First Responder 2 Theory 14.0 Hours

Students further examine emergency patient care in a pre-hospital setting. This course meets the Paramedic Association of Canada National Occupational Competency Profile for the practitioner level of emergency medical responder (EMR).

P- FIRE1075 Emergency First Responder 1 Theory and C- FIRE1084 Emergency First Responder 2 Practical, Co-FIRE1084 Emergency First Responder 2 Practical

FIRE1084 Emergency First Responder 2 Practical 28.0 Hours

Students further develop the skills necessary to help sustain life, reduce pain, and minimize the consequences of injury or sudden illness in a pre-hospital setting. This course meets the Paramedic Association of Canada National Occupational Competency Profile for the Practitioner level of emergency medical responder (EMR).

P- FIRE1076 Emergency First Responder 1 Practical, Co-FIRE1083 Emergency First Responder 2 Theory

FIRE1085 Fire Streams and Hoses Theory 14.0 Hours

This course provides an overview of the design and components of municipal water supply systems and rural water supplies, as well as the types and operation of hydrants and methods of determining flow. Topics discussed in this course include hose construction, hose appliances, hose loads/ rolls, deployment of hose lines including advancing various sizes of hose, and the care and maintenance of the different types of hose. Ventilation is also examined.

Co-FIRE1086 Fire Streams and Hoses Practical

FIRE1086 Fire Streams and Hoses Practical 28.0 Hours



Students apply their knowledge of hose lines, fire streams and ventilation and acquire practical skills in loading, deploying, and advancing hose lines. Proper application of hose streams, including foam and the operation of nozzles and appliances, are practiced.

Co-FIRE1085 Fire Streams and Hoses Theory

FIRE1087 Loss Control and Fire Cause Determination Theory 14.0 Hours

This course focuses on the importance of property conservation in firefighting. The practices and protocols of overhauling a fire scene, as well as the significance and guidelines governing fire cause investigation are examined in detail. The purpose and benefits of salvage and overhaul are also discussed.

Co-FIRE1088 Loss Control and Fire Cause Determination Practical

FIRE1088 Loss Control and Fire Cause Determination Practical 28.0 Hours

This practical course involves students performing salvage and overhaul scenarios using proper equipment and techniques. The experience obtained in this course helps to internalize students' knowledge of overhauling and property conservation.

Co-FIRE1087 Loss Control and Fire Cause Determination Theory

FIRE1089 Technical Rescue Theory 14.0 Hours

This course examines environmental hazards and rescue operations at the Awareness level. The role and responsibilities of the firefighting team and co-operating agencies are highlighted, as well as safety practices and emergency management within the Incident Management System. The importance of environmental protection, the impact of hazardous incidents on the community, and the health and safety of firefighters are also stressed.

Co-FIRE1090 Technical Rescue Practical

FIRE1090 Technical Rescue Practical 28.0 Hours

This course aids and assesses students' understanding of environmental hazards and rescue operations. An awareness of the role and responsibilities of the firefighting team and co-operating agencies are emphasized, along with safety practices and risk management and Incident Report preparation. Students obtain a practical understanding of the importance of environmental protection, the impact of hazardous incidents on the community and the health and safety of firefighters.

Co-FIRE1089 Technical Rescue Theory

FIRE1091 Fire Ground Practice and Testing 2 Practical 42.0 Hours

This course further addresses fire ground operations within the structure of an incident management system. Students develop skills pertaining to incident management, ventilation, forcible entry, search and rescue, salvage and scene assessment, overhaul, water supply and hydraulics, and hoses and appliances. Common techniques, practices and procedures, and tools and equipment are also part of this course. Students' knowledge and skills regarding basic fire ground operations is evaluated.

P- FIRE1077 Fire Grounds Practice and Testing 1

FIRE1092 Hazardous Materials Operations Theory 14.0 Hours

Students examine the role and responsibilities of the firefighting team regarding environmental hazards and associated rescue operations at the Operations level.

P- FIRE1081 Hazardous Materials Awareness Theory, Co-FIRE1093 Hazardous Materials Operations Practical

FIRE1093 Hazardous Materials Operations Practical 28.0 Hours

This course serves as an evaluation of students' knowledge and skills regarding environmental hazards and associated rescue operations. Students gain a firm understanding of safety practices and risk management, as well as the role and responsibilities of the firefighting team and co-operating agencies. Students develop an appreciation of the importance of environmental protection and the impact of hazardous incidents on the community.

P- FIRE1082 Hazardous Materials Awareness Practical, Co-FIRE1092 Hazardous Materials Operations Theory

FIRE1094 Vehicle Rescue and Extrication Theory 28.0 Hours

Students focus on the generic rescue skills and basic vehicle extrication skills necessary for a firefighter to safely and effectively extricate a victim from a vehicle. Topics include scene assessment, incident management systems, principles, techniques and protocols. Specialized equipment and resources such as manual, hydraulic and pneumatic tools, and ancillary equipment are also covered.

Co-FIRE1095 Vehicle Rescue and Extrication Practical

FIRE1095 Vehicle Rescue and Extrication Practical 14.0 Hours

Students enhance their understanding and develop skills related to scene assessment, incident management systems, and the principles, techniques, and protocols necessary to effectively extricate a victim from a vehicle.

Co-FIRE1094 Vehicle Rescue and Extrication Theory

FIRE1096 Career Preparation 2 42.0 Hours

This course emphasizes the skills required to gain employment in the fire service, such as the preparation of portfolios, interviewing skills and completing aptitude testing. A portion of this course includes volunteering in the community. Students are also given the opportunity to prepare and execute an effective plan for their career path and explore social entrepreneurship.

FIRE1097 Fire Safety Inspections for Firefighters 28.0 Hours

This course provides an overview of fire prevention activities and the principles, practices, and procedures involved in conducting fire prevention inspections.

FIRE1098 Fire Ground Practice and Testing 3 70.0 Hours

Students practice skills and solidify their knowledge of fire ground operations including incident management, ventilation, forcible entry, search and rescue, salvage and scene assessment, overhaul, water supply and hydraulics, and hoses and appliances. This course also includes practical assessment of previous learning related to fire ground operations. Students undergo skills testing as required under Firefighter I and II as well as NFPA 472.

P- FIRE1091 Fire Ground Practice and Testing 2 Practical

### **Course Description Legend**

P = Prerequisite; C = Concurrent prerequisite; CO= Corequisite

*Information contained in College documents respecting programs is correct at the time of publication. Academic content of programs and courses is revised on an ongoing basis to ensure relevance to changing educational objectives and employment market needs. The college reserves the right to add or delete programs, options, courses, timetables or campus locations subject to sufficient enrolment, and the availability of courses.*