



**Exercise Physiology Laboratory
School of Exercise Science, Physical & Health Education
University of Victoria**

**~ University of Victoria Firefighter Physical Abilities Test ~
Appointment Checklist**

This information package provides a detailed overview of the physical evaluation process.

You can book your appointment on our **online booking system** at www.firetest.ca. Spaces are extremely limited due to facility availability, so the sooner you book, the more options you have. There are not currently any additional times to book other than what is listed on the website.

You must **confirm your appointment** by sending in Page 9 of the Information Package AND a **cheque or money order payable to University of Victoria** for \$250.00. Your appointment is pending until your payment is received. We reserve the right to offer your testing time to another candidate without notice if your payment is not received within the required timeframe. When your payment is received in full, you will receive a confirmation email. NSF cheques are subject to an additional fee of \$25 and your appointment will be cancelled or your results will not be disclosed to yourself or the fire department until payment is made in full.

Complete the Checklist!

To do	Action	Done
<ul style="list-style-type: none">• Book your appointment	<ul style="list-style-type: none">• Visit www.firetest.ca	
<ul style="list-style-type: none">• Complete page 9 and attach payment of \$250 (payable to University of Victoria)	<ul style="list-style-type: none">• Mail to University to arrive 14 days before your appointment	
<ul style="list-style-type: none">• Arrange doctor's appointment to complete medical clearance form (page 10-11)	<ul style="list-style-type: none">• Bring the completed Medical Clearance Form with you on your test day (PLEASE DO NOT MAIL IN WITH YOUR PAYMENT)	
<ul style="list-style-type: none">• Read the Information Package carefully	<ul style="list-style-type: none">• Prepare as well as you can	
<ul style="list-style-type: none">• Questions? Problems?	<ul style="list-style-type: none">• Email us for help	



***School of Exercise Science, Physical & Health Education
University of Victoria***

***~ University of Victoria Firefighter Physical Abilities Test ~
Information Package***

The physical evaluation program is administered by the School of Exercise Science, Physical & Health Education at the University of Victoria. **Please read the following information carefully in order to prepare for the tests.**

GENERAL INFORMATION

The tests will be completed at the University of Victoria in Victoria, British Columbia. Schedule yourself to attend a testing time that corresponds to the currently available test times and dates. All current available dates and times are listed at www.firetest.ca

A copy of your personal results will be given to you as soon as you finish the tests, and when appropriate, a copy will be forwarded to the fire department or training centre with active competitions.

The testing program runs on a strict schedule, so you must be on time. If you are not familiar with the University of Victoria campus, please allow yourself a little extra time to acquaint yourself with the area.

You should expect to be at the University for approximately 3 hours on your test day. This amount of time permits adequate rest between tests so that you will be able to perform as well as possible.

NEW!!! TESTING LOCATION

The tests are conducted in the **McKinnon Building** at the University of Victoria. This complex is located off of McKenzie Avenue on Gabriola Road (see the enclosed campus map on page 8 or <http://www.uvic.ca/search/browse/maps.php>). Pay parking is required on most days and times, but check the dispensers upon arrival to determine whether or not this is applicable during your test time.

Upon arrival to the McKinnon Building, proceed to Room 166 to check-in for your test. There are male and female locker rooms available where you may change and shower. You should bring your own towel and a lock with you to put on a "day-use" locker, since we have no provision for securing your valuables.

COST OF TESTING

The fee for the testing service is \$250 (including taxes). This fee is **non-refundable** and must be paid in full to confirm your appointment.

- **You must pay by cheque or money order payable to the University of Victoria.**
- **NSF cheques are subject to a \$25 fee and will result in cancellation of your appointment and/or your results being held from yourself or the fire department to which you are applying.**
- **No refunds will be given for missed or cancelled appointments without a medical reason and accompanying medical documentation.**

Credit card payments cannot be accepted at this time.

CONFIRMING YOUR APPOINTMENT

You will receive an email acknowledging your pending appointment date and time after booking at www.firetest.ca. **Note that your appointment is not confirmed until your test has been paid for in full.** You must confirm your appointment by mailing the *Appointment Confirmation Form* (page 9 of this package) to the University of Victoria at the following address:

Melissa Clarke
School of Exercise Science, Physical & Health Education
University of Victoria
PO Box 1700 STN CSC
Victoria, BC
V8W 2Y2

You must include the \$250 non-refundable fee to secure your test appointment and should be received at the University at least **14 days before your test day**. We reserve the right to offer your testing time to another candidate without notice if your payment is not received within the required timeframe.

MEDICAL CLEARANCE FOR TESTING

The tests are very demanding and are designed to assess the physical capabilities of healthy individuals. In order to be tested, you must have a physician certify that you are medically fit to undertake the tests.

The ***Medical Clearance for Testing*** form (pages 10 and 11 of this package) **must be signed by your physician and you must bring it with you when you come to the University for testing. You will not be permitted to complete the tests unless this form has been completed by your physician.**

DESCRIPTION OF THE PHYSICAL FITNESS TESTS

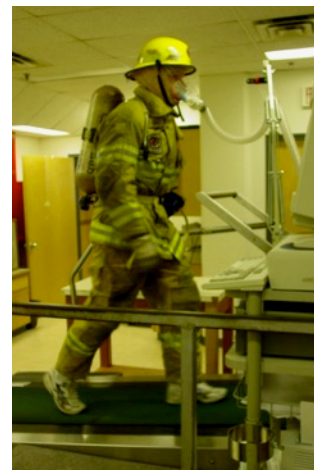
This program is designed to evaluate the physical work capacities of healthy, physically active individuals. Each test requires a maximal effort. All of the tests are completed while wearing firefighting personal protective equipment (PPE) that weighs approximately 22 kg (50 lb). This ensemble includes: helmet, flash-hood, gloves, pants, boots, jacket and self-contained breathing apparatus (SCBA). You will not breathe from the SCBA, but you must carry it. If you have your own PPE, you are encouraged to bring it to complete your test. For safety during the treadmill test, running shoes are substituted for firefighting boots.

After completing the treadmill test, you will rest for 60 minutes before starting an orientation to the job-related performance tests. The orientation to the job-related tests consists of a “walk-through” session to practice each of the tasks. This will take approximately 30 minutes and will familiarize you with testing procedures and provides a suitable warm-up for the demanding tests that follow.

Each test is followed by a rest period of 3 minutes for recovery and hydration. You are not permitted to leave the testing area or remove any parts of the PPE during the rest periods. The tests are described briefly in the following sections:

1. Aerobic Endurance

Aerobic fitness will be predicted during a progressive exercise test to exhaustion on a treadmill. After a standardized 5-minute warm-up using an increasing incline, you will walk at 3.5 mph and 10% grade for 8 minutes. If you can continue to exercise, the grade (and if necessary, speed) will be increased every minute until you reach exhaustion. Depending on your fitness level and motivation, this test may last up to about 20 minutes. In order to pass the aerobic fitness standard, you must complete the 5-minute warm-up and the 8-minute stage at 3.5 mph and 10% grade (13-minutes total).



2. Charged Hose Advance Test

You will drag a charged (full of water) 38 mm (1.5 inch) hose a distance of 45 m (125'). Three 15 m (50') lengths of hose are "snaked" behind the starting line. The nozzle is held over the shoulder and you advance to the finish line as quickly as possible (*running is not permitted*). This test assesses lower body strength and power and must be completed safely in less than 32 sec.



3. High Volume Hose Pull Test

You will pull a bundle of hose weighing approximately 56 kg (123 lb) a distance of 15 m (50') over a smooth concrete floor using a rope. This task is repeated 3 times. During this test, you must stand still and pull the hose bundle towards you using 16 mm (5/8") rope. This test assesses upper body strength, power, and endurance and must be completed safely in less than 102 sec.



4. Forcible Entry Simulation Test

You will use a 3.6 kg (8 lb) "dead blow" sledge hammer to move a weighted truck tire (102 kg or 225 lb) a distance of 30.5 cm (12") as rapidly as possible. This test assesses muscle strength, power and endurance, particularly in the upper body and must be completed safely in less than 45 sec.



5. Victim Drag Test

You will drag a mannequin weighing 68.2 kg (150 lb) a total distance of 30 m (100'). The test starts with the mannequin lying "face-up" on the floor. You will lift the mannequin and walk backwards for 15 m, turn around a traffic cone and return to the start line as quickly as possible. This test assesses muscle strength and endurance and must be completed safely in less than 49 sec.



6. Ladder Climb Test

You will climb a 7.3 m (24') ladder to the 10th rung and return to the floor as quickly as possible. This task will be repeated five times. This test assesses muscle strength, endurance, and anaerobic capacity and must be completed safely in less than 108 sec.



7. Equipment Carry/Vehicle Extrication Test

You will carry small (18 kg or 40 lb) and large (36 kg or 80 lb) vehicle extrication tools (the “Jaws of Life”) a total distance of 30 m (100’). In addition, you will lift and hold the 18 kg tool in specific positions that simulate the work required to remove a vehicle door. This test is designed to evaluate the strength and endurance required to lift, carry and use heavy tools in rescue situations. This test must be completed safely in less than 270 sec.



EFFECTIVE PREPARATION FOR THE TESTS

In order to do your best, you should come to the laboratory on your testing day well nourished and well rested. You should not do strenuous exercise on the days immediately before your tests. Sleep well the night before and try to be as relaxed as possible.

Avoid alcoholic beverages the day before and definitely on the day of your test. Do not smoke or drink beverages with caffeine (tea, coffee, hot chocolate, cola, energy drinks, etc.) for at least two hours prior to your test. Excessive caffeine consumption can significantly increase your heart rate and blood pressure, and if elevated beyond normal values, may prohibit you from completing the test at your booked time.

Do not eat for at least two hours before your test appointment. However, it is important to be well nourished and well hydrated. The tests are very demanding and most individuals are extremely tired at the end of each test.

If your appointment is first thing in the morning, do not skip breakfast. You should eat a light meal (e.g., fruit, toast or cereal, and juice) about three hours before your test.

WHAT DO I NEED TO BRING?

Clothing

Bring the following items of clothing with you: **shorts, two T-shirts, running shoes, extra socks, and sweats**. Your T-shirt will be wet from sweat after the treadmill test. You should change into a dry shirt and then put on sweats to keep warm during the 60-minute rest period.

If you have your own turnout gear, it is recommended that you bring it so that you have a set that is your size. We have a number of pieces of gear in standard sizes that have been handed down from various departments, but cannot guarantee your size will be available at the time of your test. Please note that the only article you may not be able to wear from your own equipment is your boots. To standardize the test so it is fair for

all applicants, everyone must wear the same type of boots. We have the older style rubber boots available. If you have your own rubber boots, feel free to bring them and we will inspect them at the time of your test to determine whether or not they are acceptable. We have a good selection of sizes; however getting an exact fit may not always be possible. In order to get the best fit, bring several pairs of socks (thin and thick sport socks).

Nutrition

You should bring a water bottle or sports drink (e.g., Gatorade). You may want to eat a **small** snack (e.g., banana or energy bar) during the rest period between the treadmill test and the job-related tests.

Be careful to practice in advance so that you know how much to eat and drink during 3+ hours of intermittent, extremely strenuous exercise. If you eat or drink too much you may feel sick and do poorly. If you eat and drink too little, you may get dehydrated and do poorly.

Optimal nutrition and hydration strategies tend to vary between individuals. Work this out for yourself. Don't follow someone else's advice unless you have had the chance to make sure it works for you under the kind of conditions you will experience during these tests.

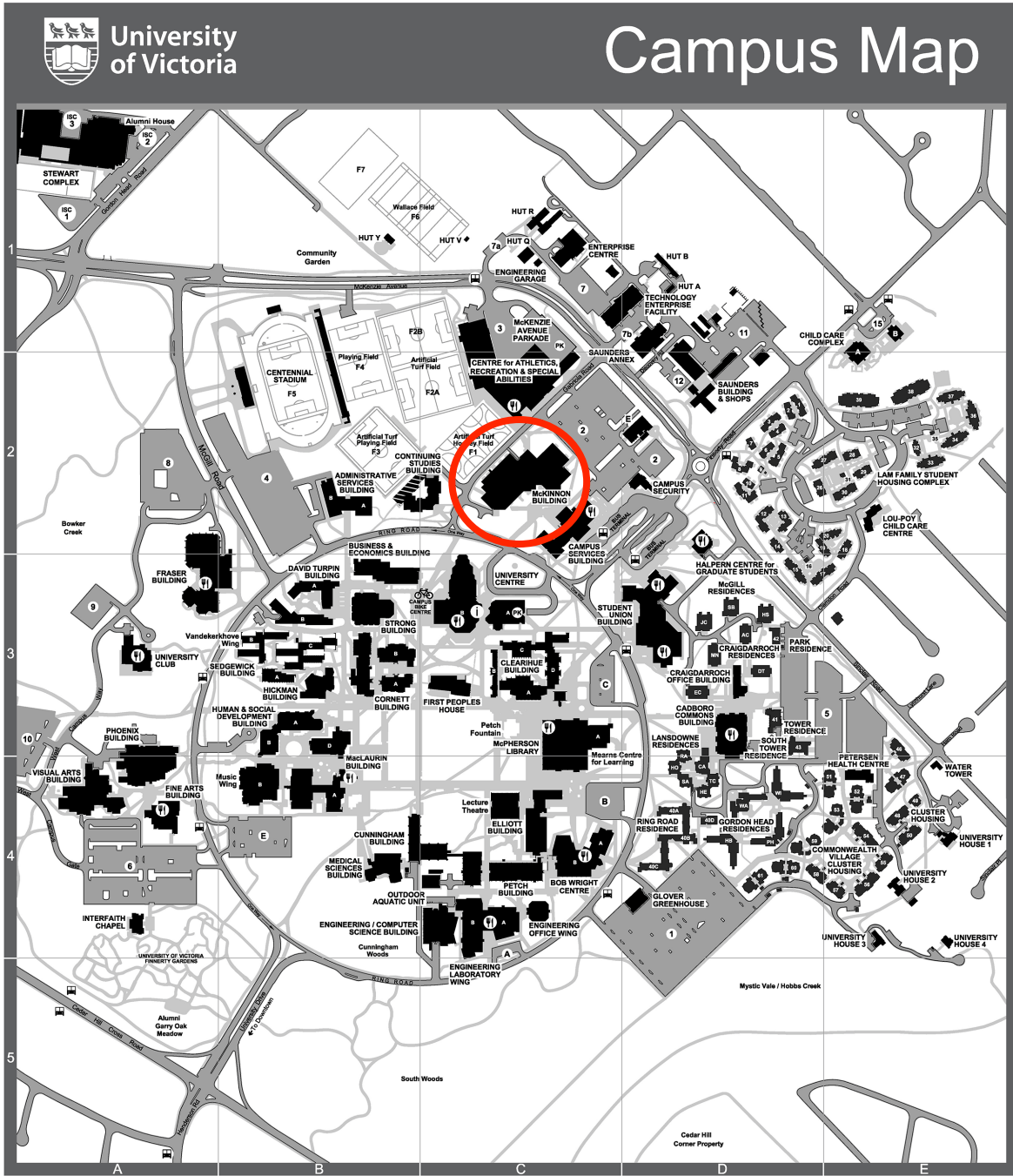
Identification

Government issued photo ID is required in order to register for the test and verify your identity on test day.

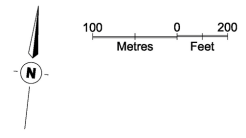
Medical Clearance

You must bring the **Medical Clearance for Testing** document that has been completed by your physician. This document provides medical clearance for you to undertake the specific tests in this program. You will not be permitted to do any of the tests until the Medical Clearance for Testing document has been signed by your physician. Please do not mail the paperwork in with your payment; bring the medical clearance with you on your test day.

UNIVERSITY OF VICTORIA – CAMPUS MAP
<http://www.uvic.ca/search/browse/maps.php>



- | | | |
|------------------------------|---------------------|---------------------|
| Buildings | General Pay Parking | Bus Stop |
| Residences | Reserved Parking | Parkade |
| Buildings Under Construction | | Food Service Outlet |
| | | Welcome Centre |





**~ University of Victoria Firefighter Physical Abilities Test ~
Confirmation of Appointment**

WHEN YOU RECEIVE YOUR APPOINTMENT TIME, COMPLETE THE FOLLOWING INFORMATION AND MAIL TO:

Melissa Clarke
School of Exercise Science, Physical & Health Education
University of Victoria
PO Box 1700 STN CSC
Victoria, BC
V8W 2Y2

Cheques and money orders should be made payable to the UNIVERSITY OF VICTORIA.

Name: _____

Address: _____
(Street Address)

(City) (Province) (Postal Code)

Telephone: _____

E-mail: _____

I will attend the Firefighter Physical Fitness Evaluation at the following time:

Date _____ Time _____

If you have questions about your appointment, email firetest@uvic.ca or visit www.firetest.ca. **Enclose a CHEQUE OR MONEY ORDER (payable to the *University of Victoria*). Full payment is required to confirm your appointment. This page and your payment must be received 14 days BEFORE your appointment.**



**School of Exercise Science, Physical & Health Education
University of Victoria**

~ University of Victoria Firefighter Physical Abilities Test ~

Medical Clearance for Testing

Applicant name _____

This program is designed to **evaluate the physical work capacities of healthy, physically active individuals**. Each test requires a maximal effort. All of the tests are completed while wearing firefighting personal protective equipment (PPE) that weighs approximately 22 kg (50 lb). This ensemble includes: helmet, flash-hood, gloves, pants, boots, jacket, and self-contained breathing apparatus (SCBA). The applicant is not required to breathe from the SCBA, but must carry it. For safety during the treadmill test, running shoes are substituted for firefighting boots. The tests are administered by the School of Exercise Science, Physical & Health Education at the University of Victoria, and are **not medically supervised**. The test procedures are described briefly below:

Aerobic Endurance

Maximum oxygen uptake (VO_{2max}) will be predicted during a progressive, incremental exercise test to exhaustion on a treadmill. During the test heart rate is monitored continuously with a telemetry system. Depending on fitness level and motivation, this test normally requires the individual to walk on the treadmill for between 10 – 20 minutes. Regardless of the fitness level of the individual, the test normally involves a maximal effort and is terminated when the person is too fatigued to continue exercise. Combined with the exercise stress, the weight and heat retention properties of the PPE result in a significant level of fatigue. After completing the treadmill test, the applicant will rest for 60 minutes before moving on to the job-related performance tests.

JOB-RELATED PERFORMANCE TESTS

Prior to completing the job-related tests, the applicant will complete a “walk-through” session where they are allowed to practice each of the tasks. This takes approximately 30 minutes and serves to familiarize the applicant with testing procedures and provides a suitable warm-up for the demanding tests that follow. Each test is followed by a rest period of 3 minutes for recovery and hydration. Applicants are not permitted to leave the testing area or remove the PPE during the rest periods.

Charged Hose Advance Test

Applicants drag a charged (full of water) 38 mm (1.5 inch) hose a distance of 45 m (125'). Three 15 m (50') lengths of hose are “snaked” behind the starting line. The nozzle is held over the shoulder and applicant advances to the finish line as quickly as possible. This test assesses lower body strength and anaerobic power.

High Volume Hose Pull Test

Applicants pull a bundle of hose weighing approximately 56 kg (123 lb) a distance of 15 m (50') over a smooth concrete floor using a rope. This task is repeated 3 times. During this test, the applicant is stationary and must pull the hose bundle towards them using 16 mm (5/8") rope. This test assesses upper body strength, power, and endurance.

Forcible Entry Simulation Test

Using a 3.6 kg (8 lb) "dead blow" sledge hammer, the applicant moves a weighted truck tire (102 kg or 200 lb) a distance of 30.5 cm (12") as rapidly as possible. This test assesses muscle strength, power and endurance, particularly in the upper body.

Victim Drag Test

The applicant drags a mannequin weighing 68.2 kg (150 lb) a total distance of 30 m (100'). The test starts with the mannequin lying "face-up" on the floor and the applicant standing. The applicant lifts the mannequin and walks backwards for 15 m, turns around a traffic cone and returns to the start line as quickly as possible. This test assesses strength, power, and agility.

Ladder Climb Test

The applicant climbs a 7.3 m (24') ladder to the 10th rung and returns to the floor as quickly as possible. This task will be repeated five times. This test assesses muscle strength, endurance, and anaerobic capacity.

Equipment Carry/Vehicle Extrication Test

The applicant carries small (18 kg or 40 lb) and large (36 kg or 80 lb) vehicle extrication tools (the "Jaws of Life") a total distance of 30 m (100'). In addition, the applicant will lift and hold the 18 kg tool in specific positions that simulate the work required to remove a vehicle door. The tools will then be returned to the storage cabinet. This test is designed to evaluate the strength required to lift, carry and use heavy tools in rescue situations.

Is this individual taking any medication that could affect normal physiological responses to exercise? No _____ Yes _____ If yes, please explain.

Resting heart rate: _____ bpm **Resting BP:** _____ mmHg

If heart rate is greater than 100 bpm and/or blood pressure is greater than 144/94 mmHg, is this individual in sufficient health to undertake maximal exercise?

No _____ Yes _____ If yes, please explain.

Is there any medical reason that this individual should not undertake maximal exercise?

No _____ Yes _____ If yes, please explain.

I certify that this applicant has been given a medical examination and is medically fit to undertake the Physical Fitness Evaluation described above.

Physician's Name _____ **Date** _____

Address _____

_____ **Telephone** _____

Signature _____