



# Application Form for the 2009-2010 High School Fire Science Program



## Program Description

- The Montgomery County High School Fire Science program is a national award-winning one- or two-year program for high school juniors and seniors. This program educates and trains students to become firefighters and/or Emergency Medical Service (EMS) providers in Montgomery County, Maryland.
- The firefighting pathway and the EMS pathway are separate one-year programs, allowing students to choose either or both courses of study.
- Both programs are available to juniors and seniors. It is recommended, but not required, that juniors take firefighting their junior year and EMS their senior year.
- All classes are held from 11:00 AM to 1:30 PM, at the Montgomery County Fire Rescue Training Academy, 9710 Great Seneca Highway, Rockville, Maryland 20850.
- Montgomery County Public Schools will provide bus transportation to and from each student's home school, or students may drive to class in their personal vehicles with appropriate permission (MCPS Form 560-31).

## Benefits/Credits/Certifications

- Students meet graduation requirements by completing the career pathway program.
- Students may receive up to eleven (11) college credits at the discretion of Montgomery College.
- Funds for college tuition costs are available as established by the Maryland Commission on Higher Education, State Scholarship Administration.
- Students will have the opportunity to earn and submit Student Service Learning hours during the school year.
- EMS cadets can earn certification as a Maryland Emergency Medical Technician/Basic (EMT/B) from the Maryland Institute for Emergency Medical Services Systems (MIEMSS).
- Cadet firefighters can earn Firefighter Level II certification by the Maryland Fire and Rescue Institute (MFRI), National Board on Fire Service Professional Qualifications (NBFSPQ) and International Fire Service Accreditation Congress (IFSAC).

## Entrance Requirements

- Students must be 16 years of age on the day classes begin and have a 2.5 Grade Point Average (GPA) for the previous school year.
- Students must pass a National Fire Protection Association (NFPA) 1001 physical examination provided by the Montgomery County Fire Rescue Occupational Medical Services (FROMS) prior to the start of the school year. Also note that firefighting skills, lifting, and moving patients require appropriate physical fitness and strength. Students with respiratory disorders, such as asthma, may not be able to pass the NFPA 1001 physical examination.
- Students must fully complete the application by the April 15, 2009 deadline to be considered for acceptance into the Fire Science program. Completing the application by the deadline does not guarantee acceptance into the program.

## Uniform Requirements

- Cadets are required to purchase midnight blue trousers, black oxford shoes, and 1 ½" black belt.
- The Academy furnishes one (1) long-sleeved and one (1) short-sleeved shirt.

## Program Requirements

- Students must have a 2.5 GPA from the previous school year and maintain a 2.5 GPA while enrolled in the program.
- Students enrolled in either program of study must take modular-based written and practical skills examinations. **Failure to score 70% on any exam will result in dismissal from the program. Please see modules that follow. According to the Maryland Fire and Rescue Institute (MFRI), students scoring between 60-69 percent may have the opportunity to reassess after appropriate counseling or retraining.**
- Class work requires reading and comprehension of rigorous technical material, completion of daily homework assignments, and several research papers. Please see the list of required modules on the next page.
- **EMT/B students are required to pass all modules in their selected program before taking the state examination.**

- Any absence, whether excused or unexcused, beyond ten percent (10%) of the scheduled classes may lead to dismissal from the program.
- Practical training in the firefighter classes demand rigorous physical exertion, performing at extreme heights, functioning in confined spaces, and fighting fires under controlled conditions with direct supervision.
- Students participating in the program must provide written proof of private health insurance coverage.
- An internship program, including an assignment to a fire department or rescue squad, during class time is included with each course.

Students may choose to join a community volunteer fire/rescue department as a way to enrich the experience in the Fire Science program. **This volunteer experience is not required to complete the MCPS program. An affiliation with a department is required to maintain the EMT/B license. This volunteer experience is not supervised by the MCPS High School Fire Science program; students join these organizations at their own discretion.** If students choose to volunteer, it is recommended that all volunteer standbys be completed during daytime hours and in accordance with work guidelines set by the Fair Labor Standards Act. **Overnight stand-bys are not recommended and are highly discouraged.**

### EMS Pathway

#### Module 1

- Blood Borne Pathogens
- Equal Employment Opportunity/ Affirmative Action (EEO/AA)
- Cultural Diversity
- Personal Protective Equipment (PPE)/FIT Testing
- Cardio-Pulmonary Resuscitation (CPR)
- HazMat
- Voice Radio
- Well Being of the EMT/B
- Infection Control
- Medical Legal Aspects
- Anatomy
- Vital Signs
- Lifting and Moving Patients

#### Module 2

- Airway/Oxygen Therapy

#### Module 3

- Scene and Initial Assessment
- Trauma and Detailed Physical Exam

- Trauma Assessment Skills
- Geriatric and Pediatric Assessment
- Triage and Multiple Casualty Incidents (MCI's)
- Communication and Documentation

#### Module 4A

- Pharmacology, IV Maintenance
- Respiratory Emergencies and Allergic Reactions
- Cardiac Emergencies and Automated External Defibrillator (AED) Introduction and Practice

#### Module 4B

- Diabetic Emergency and Acute Abdomen
- Neurological Disorders, Strokes, and Seizures
- Substance Abuse and Poisonings
- Environmental Emergencies
- Behavioral Emergencies

- Medical Emergency Skills Practice

#### Module 5

- Kinematics of Trauma
- Injuries (soft tissue, chest, abdomen, genitals, musculo-skeletal, head, and spinal)
- Splinting
- Spinal Immobilization
- Trauma Skills

#### Module 6

- Obstetrics/Gynecological Emergencies
- Pediatric Trauma

#### Module 7

- Ambulance Operations

#### Module 8

- Maryland Institute for Emergency Medical Services System (MIEMSS) State Practical Exam
- Advanced EMS Classes

### Firefighter Pathway

#### Module 1

- Blood Borne Pathogens
- Equal Employment Opportunity/ Affirmative Action (EEO/AA)
- Cultural Diversity
- Personal Protective Equipment (PPE)/FIT Testing
- Cardio-Pulmonary Resuscitation (CPR)
- HazMat
- Voice Radio
- Fire Department Organization
- Hose and Rope
- Fire Behavior
- Ladders/Ventilation
- Fire Streams

#### Module 2

- Forcible Entry
- Water Supply
- Fire Extinguishers
- Wilderness Firefighting
- Search and Rescue
- Salvage and Overhaul

#### Module 3

- Building Construction
- Sprinklers/Elevators
- Fire Control
- Liquefied Propane Gas (LPG)/Foam
- Incident Command

#### Module 4

- Electrical Emergencies/Utilities
- Fire Investigation
- Fire Education
- Auto Fire/Containers
- Metro
- Auto Extrication

#### Module 5

- Firefighter II
- Flashover
- Survival and Rescue
- Truck company OPS
- Arson detection



# Application Form for the 2009-2010 High School Fire Science Program



## APPLICATION DEADLINE IS APRIL 15, 2009

Please **print** all information requested on this application. The student, parent or guardian, and school counselor must sign and date this application. Forward the completed application form to Damascus High School at the address listed on the reverse side.

Name: \_\_\_\_\_ High School: \_\_\_\_\_  
*Last First MI*

Student ID Number: \_\_\_\_\_ Current Grade: *Circle one* 10 11

Social Security Number: \_\_\_\_\_ Date of Birth: \_\_\_\_\_  
*(Must be 16 years old by the start of class)*

Street Address: \_\_\_\_\_  
 \_\_\_\_\_  
*City State Zip*

Home Telephone: \_\_\_\_\_ Student's Cell Phone: \_\_\_\_\_

Student's E-Mail Address: \_\_\_\_\_

Parent/Guardian's Name: \_\_\_\_\_

Parent's Work Phone: \_\_\_\_\_ Parent/Guardian Email \_\_\_\_\_

Have you ever applied to the Fire Science Program? *Circle one* Yes No  
 Will you need transportation to and from the Academy? *Circle one* Yes No

After conferring with your school counselor, select the program in which you plan to enroll during the 2009-2010 school year. Please check only one of the boxes below.

	<input type="checkbox"/> <b>Fire Fighting-Pathway</b>			<input type="checkbox"/> <b>Emergency Medical Service-Pathway</b>		
<i>Semester</i>	<i>Title</i>	<i>Code</i>	<i>Credits</i>	<i>Title</i>	<i>Code</i>	<i>Credits</i>
1	Essentials of Fire Fighting A	5423	1.0	Emergency Medical Technician/Basic	5453	0.5
				Emergency Medical Technician/Basic (Science)	3993	0.5
	Essentials of Fire Fighting Internship A	5421	0.5	Emergency Medical Technician/Basic Internship A	5458	0.5
2	Advanced Fire and Rescue Techniques B** ♦	5424	1.0	Emergency Medical Technician/Basic Internship B** ♦	5459	1.0
	Advanced Fire and Rescue Techniques Internship B	5422	0.5	Emergency Medical Technician/Basic (Science)	3994	0.5

\*\*Certificate of Merit

♦ Student Service Learning Hours

An internship program, including an assignment to a fire department or rescue squad, is included with each of the courses listed above. This internship occurs during the 11:00 a.m.–1:30 p.m. class time.



# Application Form for the 2009-2010 High School Fire Science Program



**APPLICATION DEADLINE IS APRIL 15, 2009**

I have read and understand the program description, entrance requirements, and program requirements as listed on pages 1 and 2.

I understand that my son/daughter will be receiving the same type of training as Montgomery County career and volunteer firefighters. **I also understand that the risk of injury or burn is a possibility due to the nature of the training my son/daughter is about to receive.** My son/daughter has my permission to participate in this program including the station internship component. To the best of my knowledge, my son/daughter has no physical condition that would impair his/her performance in the Fire Science program.

Student's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Parent's/Guardian's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Guidance Counselor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Guidance Counselor's Name: (Print) \_\_\_\_\_

(Email) \_\_\_\_\_

**Two MCPS references are required:**

Teacher Reference	Administrator Reference
Name (Print)	Name (Print)
Email	Email

Forward this application by **April 15, 2009**, along with an unofficial *school transcript* and completed *work permit* to:

**Mr. Vic Mollet  
MCPS Fire Science Liaison  
Damascus High School  
25921 Ridge Road  
Damascus, Maryland 20872**

Any questions should be addressed to **Vic Mollet** at **301-253-7059** or e-mail...

**Vic\_K\_Mollet@mcpsmd.org**

**For more information visit: [www.mcfrcs.org/psta/fire-science](http://www.mcfrcs.org/psta/fire-science)**

***You will be contacted on or before June 5, 2009, concerning the status of your application. You will be scheduled during June or July for a complete NFPA 1001 physical. Students who fail to show up for the appointment may not be accepted into the program.***

The Montgomery County Public Schools prohibits illegal discrimination on the basis of race, color, national origin, religion, gender, age, marital status, socioeconomic status, sexual orientation, physical characteristics, or disability. Inquiries or complaints regarding discrimination or Title IX issues such as gender equity and sexual harassment should be directed to the MCPS Compliance Officer, Office of the Deputy Superintendent, 850 Hungerford Drive, Room 129, Rockville, MD 20850, at 301-279-3126.