

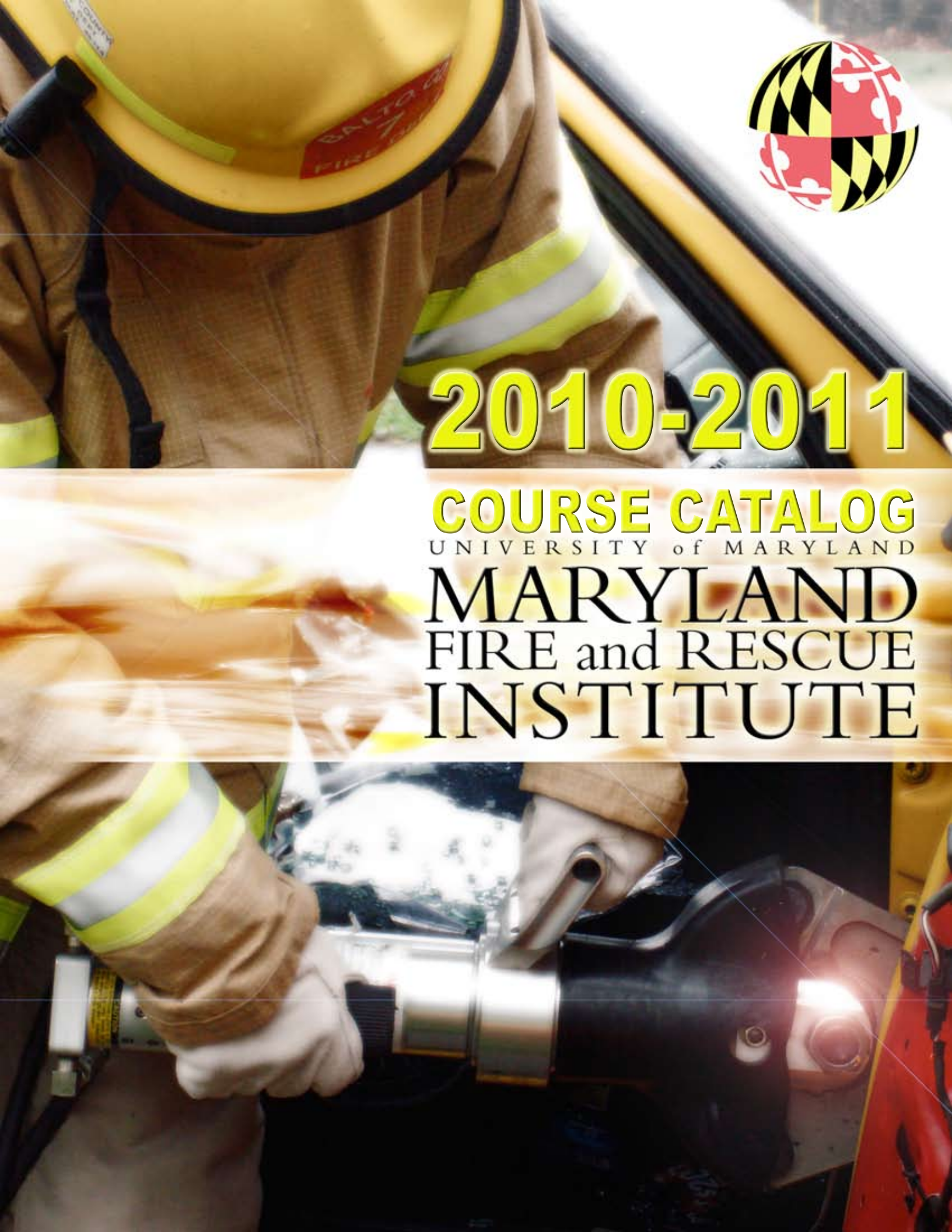


2010-2011

COURSE CATALOG

UNIVERSITY of MARYLAND

**MARYLAND
FIRE and RESCUE
INSTITUTE**





UNIVERSITY OF MARYLAND

MARYLAND FIRE AND RESCUE INSTITUTE

College Park, Maryland 20742-6811
301.226.9900 TEL 301.314.0686 FAX

The Maryland Fire and Rescue Institute (MFRI) has over seventy five years of experience in providing state-of-the-art fire, rescue, and emergency medical training programs to the emergency services providers in the State of Maryland. Through the dedication of more than 60 full-time faculty and staff members and support of over six hundred state-certified instructors serving as adjunct faculty, MFRI prides itself on its ability to present programs that meet our customers' needs through site-specific mobile training or at any one of MFRI's regional training centers. Many of MFRI's programs have received college-level recognition by the American Council on Education, enabling our students to apply training toward a college degree.

MFRI is an entity of the University of Maryland at College Park with headquarters facilities and an academy located on the College Park Campus, as well as six regional training centers located at Aberdeen, Cresaptown, Mt. Airy, Centreville, Princess Anne, and LaPlata.

The five MFRI organizational sections work collectively to deliver services to a wide variety of customers. Administrative Services renders a solid base of support services Institute-wide, while serving as the hub from which all administrative operations are conducted. Logistical Support is responsible for facilities management and operation, equipment utilization and inventory, fleet management, and regulatory compliance. Field Programs coordinates the scheduling and delivery of programs on a regional basis throughout the state. Under the direction of Field Programs, six regional training centers assist in coordination of local delivery while assessing the needs of the region. Field Programs is also responsible for the coordination and delivery of Terrorism Response and Advanced Life Support training. Institute Development is responsible for the development and revision of MFRI programs to reflect the current dynamics within the emergency services. Special Programs provides consulting and training services to private industry, government, and the emergency services, specializing in safety and health, regulatory compliance, and loss prevention and control.

It is the goal of the Maryland Fire and Rescue Institute to improve upon the past and remain the premier state emergency services training agency in the nation.

Sincerely,

Steven T. Edwards
Director

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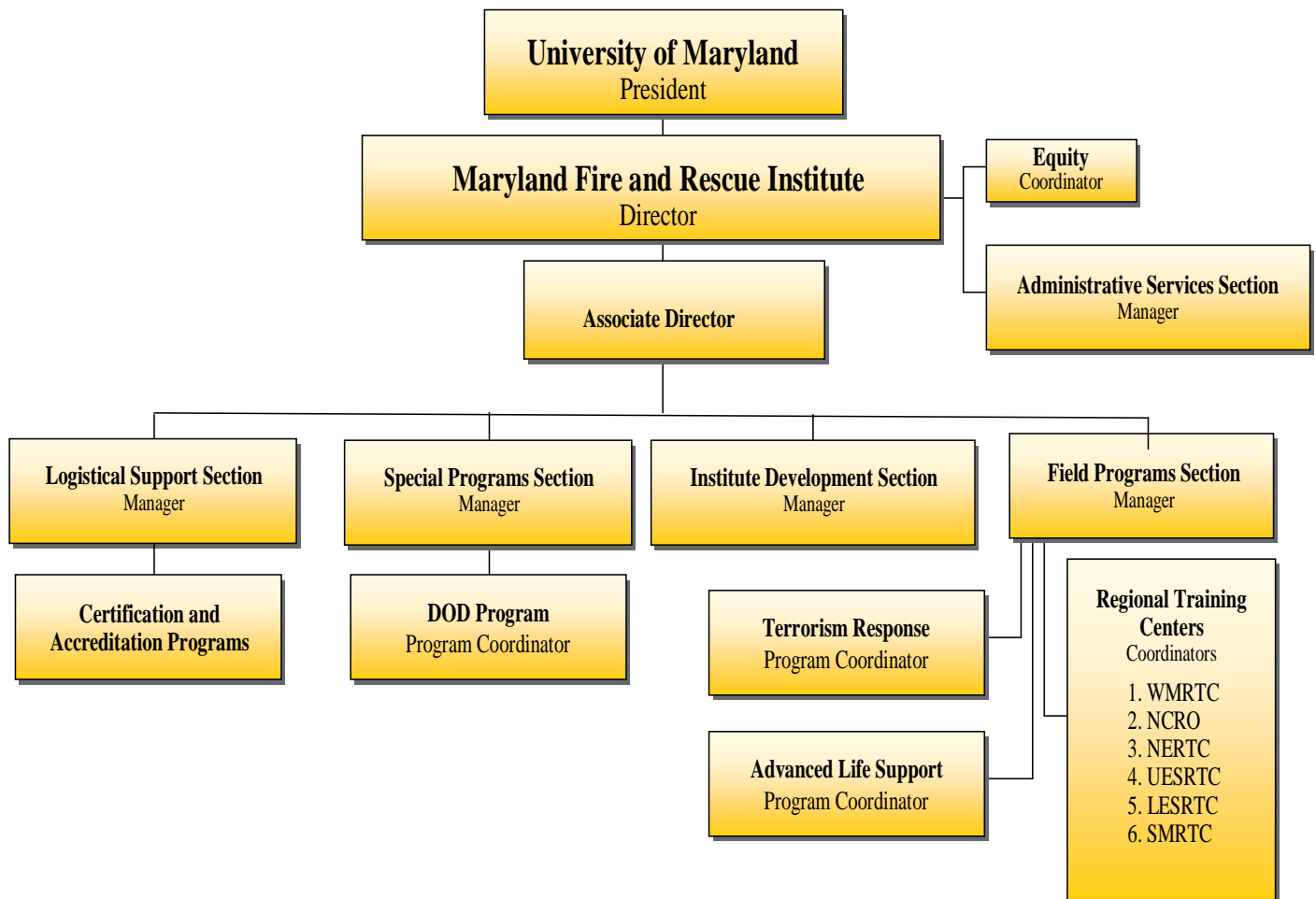
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ORGANIZATIONAL STRUCTURE



ORGANIZATION

Institute Development:

The Institute Development Section (IDS) is responsible for development and revision of all MFRI programs as well as publications production and graphic design. This section is also responsible for providing professional development opportunities to full- and part-time personnel. A manager supervises the program and instructional designers.

Field Programs:

The Field Programs Section (FPS) is responsible for implementing and delivering programs for the Maryland emergency services community. Regional centers are located throughout the state to coordinate this delivery. They include Western Maryland, North Central, North East, Upper Eastern Shore, Lower Eastern Shore, and Southern Maryland. In addition to the offices, training centers with facilities to perform evolutions in structural fire fighting and special fire fighting activities are located at Headquarters in College Park, Western Maryland, North East, Southern Maryland, Upper Eastern Shore, and Lower Eastern Shore. A manager supervises the faculty and staff in the delivery of field programs.

Advanced Life Support Program:

The Advanced Life Support (ALS) Program is responsible for the Institute's development and delivery of continuing education. Programs are presented addressing the continuing education needs of Maryland's advanced life support providers.

Terrorism Response Training:

Terrorism Response Training teaches first responders to respond to Terrorism and Weapons of Mass Destruction incidents. MFRI offers a variety of classes, from equipment training sessions to seminars such as *WMD Incident Management/Unified Command*. All levels of responders will benefit from these programs.

Certification:

MFRI serves as the administrative arm for the Maryland Fire Service Personnel Qualifications Board (MFSPQB). All certifications, as well as the data repository of the Maryland Voluntary Fire Service Certification System, are produced and maintained here.

Administrative Services:

The Administrative Services Section (ADS) is responsible for the administrative support of all MFRI sections including budget preparation, personnel, accounting and payroll records, purchasing, bookstore sales, information technology, and data management. A manager supervises the office staff and other support personnel.

Logistical Support:

The Logistical Support Section (LSS) coordinates the Institute's resources including facilities, vehicles, and operations of the Headquarters facility in College Park. Logistical Support also ensures the Institute's compliance with EPA and OSHA regulations. The section coordinates the maintenance and repair of the College Park training facility and the regional training centers, and includes fleet management for more than fifty vehicles supporting the Institute's activities. A manager supervises this section, which includes facility scheduling, vehicle mechanical maintenance, respiratory protection, facility and prop construction and maintenance, and student workers.

Special Programs:

The Special Programs Section (SPS) offers programs to business, industry, and government in safety and health, regulatory compliance, and loss prevention and control. The SPS is a self-supporting section of the Institute, responsible for consulting and training services offered to private industry, government, and the emergency services community.

Department of Defense Programs:

The Department of Defense (DOD) Program is part of the Special Programs Section. The Department of Defense Program contracts with various DOD facilities, including military fire departments, to provide emergency services training.

The Special Programs Section is dedicated to several important concepts within the MFRI mission:

- *Providing quality training and consulting in emergency services and safety to industry and government;*
- *Promoting understanding and cooperation between the professional emergency services community and safety professionals in both industry and government;*
- *Providing quality consulting and training services to the national and international emergency services community;*
- *Promoting excellence in the Institute's delivery of training programs to industry, government, and emergency services. SPS provides consulting and training services to industry and government in safety and health, regulatory compliance, emergency services management, and instructor development.*

The development of specialized training programs is essential to the daily operation of the Special Programs Section. The instructors utilized in the industrial program are faculty and adjunct faculty of MFRI. MFRI instructors are experienced in emergency services and industry safety concepts. In addition, there are legal requirements for certification and recertification for emergency service instructors.

The Special Programs Section offers many industrial and governmental safety-related services to clients. OSHA compliance audits based on the Industrial Emergency Response and Safety Needs Assessment developed by SPS are available in addition to life safety audits. Instructor training and course design services are available to clients developing in-house training programs.

The Special Programs Section currently offers many specialty programs for emergency services, government, and private industry, including

| | |
|--|--|
| <i>Aircraft Rescue Fire Fighting</i> | <i>Emergency Medical Technician</i> |
| <i>Automated External Defibrillator</i> | <i>Emergency Response Team</i> |
| <i>Automatic Sprinkler Systems</i> | <i>Emergency Response Team Leader</i> |
| <i>Bloodborne Pathogens</i> | <i>Emergency Services System Evaluation</i> |
| <i>Cardiopulmonary Resuscitation</i> | <i>Employee Evacuation Procedures</i> |
| <i>Chain Saw Safety</i> | <i>Fall Protection for General and Construction Industry</i> |
| <i>Chlorine Emergencies</i> | <i>Fire Behavior/Chemistry of Fire</i> |
| <i>Confined Space Awareness & Entry</i> | <i>Fire Codes and Inspection</i> |
| <i>Confined Space Entry & Rescue</i> | <i>Fire Extinguishers</i> |
| <i>Driver-Operator (NFPA 1002)</i> | <i>Fire Department Safety Officer</i> |
| <i>Domestic Preparedness-Response to Terrorism</i> | <i>Fire Inspector I, II, III (NFPA 1031)</i> |
| <i>Elevator Rescue</i> | <i>Fire Instructor I, II, III (NFPA 1041)</i> |
| <i>Emergency Action/Response Plan</i> | <i>Fire Investigator (NFPA 1033)</i> |
| <i>Emergency Medical First Responder</i> | <i>Fire Officer I, II, III, IV (NFPA 1021)</i> |

Firefighter I, II (NFPA 1001)
Flammable Gas Fire Fighting
Foam Applications and Systems
Forcible Entry Techniques
Gas Leak Emergencies
Hazard Communication
Hazardous Materials Awareness, Operations, Technician
(OSHA & NFPA 472)
Hazardous Materials On Scene Incident Commander
(NFPA 472)
Health and Wellness Programs
Home Fire Safety
Hospital Fire Safety
Industrial Fire Brigade (Incipient and Structural-NFPA 600,
1081)
Industrial Rescue Technician
Instructional Techniques
ISO Fire Suppression Rating Schedule
Laboratory Safety
Lock-Out/Tag-Out

Maritime Fire Safety
National Incident Management System (NIMS)
Nuclear Fire Brigade Training
Office Fire Safety and Evacuation
OSHA and EPA Regulatory Compliance
Personal Protective Equipment
Physical Fitness Programs
Plans Examiner I, II
Rescue Technician (NFPA 1006, 1670)
Respiratory Protection
Respiratory Fit Testing
Rope/High-Angle Rescue
Ropes and Knots
Self-Contained Breathing Apparatus
Standpipe Systems
Swift Water Rescue
Trench Construction and Safety
Trench Collapse and Rescue
Urban Search and Rescue

AMERICAN COUNCIL ON EDUCATION

ACE/CREDIT Recommendation Service

The Maryland Fire and Rescue Institute has provided quality education and training programs for over seven decades to the Maryland fire service. Periodically, the Institute completes an academic review by the American Council on Education College Credit Recommendation Service (CREDIT), thereby gaining college-level recognition for MFRI courses and hand-off National Fire Academy courses.

An independent, non-profit organization founded in 1918, the American Council on Education (ACE) is the umbrella organization for the nation's colleges and universities. ACE provides a forum for discussion and decision-making on higher education issues of national importance and seeks to coordinate the interests of all segments of the higher education community into a single voice.

The review process is the product of efforts to attain college-level equivalency resulting from recommendations by the Maryland Fire-Rescue Education and Training Commission and the MFRI Training and Education Plan. Director Steven T. Edwards places high priority on achieving ACE acceptance. Under this progressive action, both MFRI and fire service students benefit: MFRI enhances its academic status while the dedicated student gains the opportunity to obtain college credit for primary or elective courses.

ACE/CREDIT evaluates the MFRI courses according to established college-level criteria and recommends college credit for those that are up to standard. ACE/CREDIT's college credit recommendations:

- Enhance course participants' learning experience
- Facilitate decisions on the awarding of college credit
- Provide an ongoing record of MFRI students' accomplishments

The course evaluation process includes a site review and a review of MFRI curricula and programs by teams of national-level experts coordinated by ACE. As a result, the MFRI course work is listed in the *National Guide to Educational Credit for Training Programs*, which is available to academic advisors for reference while counseling students. It is available on-line at <https://www.acenet.edu/nationalguide>.

The listing of MFRI courses in the ACE guide provides another step toward "seamless education" wherein an individual may progress toward higher education without the resistance of systems boundaries. Although automatic recognition is not available at all institutions, students may receive credit for courses at the University of Maryland University College and many community colleges in the state. Numerous other colleges and universities recognize the ACE listings in the credit transfer process.

Educational credit is a concept used by post-secondary institutions to quantify and record a student's successful completion of a unit of study. Post-secondary education consists of courses and programs of instruction for persons who are high school graduates or the equivalent, or who are beyond compulsory school age. Evaluators utilize the following categories of educational credit in semester-hour equivalencies when formulating credit recommendation for CREDIT courses or programs:

Vocational Certificate: This category describes course work of the type normally found in certificate or diploma (non-degree) programs that are usually a year or less in length and designed to provide students with occupational skills. This course work can also be found in curricula leading to associate degrees in applied sciences. Course content is specialized and the accompanying shop, laboratory, or similar practical components emphasize procedural more than analytical skills. "Technical Certificate Credit" is included in this category.

Lower Division Baccalaureate/Associate Degree: This category describes course work of the type normally found in the first two years of a baccalaureate program and in programs leading to the Associate in Arts, the Associate in Science, or the Associate in Applied Science degrees. The instruction stresses development or analytical abilities at the introductory level. Verbal, mathematical, and scientific concepts associated with an academic discipline are introduced, as are basic principles. Occupationally oriented courses in this category are normally designed to prepare a student to function as a technician in a particular field.

Upper Division Baccalaureate Degree: This category describes courses of the type found in the last two years of a baccalaureate program. The courses involve specialization of a theoretical or analytical nature beyond the introductory level. Successful performance by students normally requires prior study in the area.

Graduate Degree: This category describes courses with content of the type found in graduate programs. These courses require one or more of the following: independent study, original research, critical analysis, and the scholarly and/or professional application of the specialized knowledge or discipline. Students enrolled in such a course normally have completed a baccalaureate program.

In order to utilize the ACE listing, the student must request that college/university academic counselors consult the guide for the specific course review and credit recommendations in terms of available transfer credit. This process should be accomplished early in the planning process to assure the credit value of each course at a specific institution. This ACE listing does not imply automatic credit.

ACE recommendations for college equivalent credit validate and emphasize MFRI's commitment to high-quality education. In addition, it provides a positive incentive for firefighters to take MFRI training courses and actively participate in the Maryland fire service. The value of significant financial savings to a family's educational opportunities must also be considered where MFRI course work can be credited toward a college program.

Upon successful completion of a MFRI or National Fire Academy (NFA) course offered through the Institute, a MFRI student should request an official transcript from the Institute. This is a simple procedure completed by contacting any MFRI regional office or Headquarters in College Park for a transcript request form. This form is also available online at www.mfri.org/certifications. Upon completion of the transcript request form, the Institute will provide the student an official transcript listing the student's MFRI courses. A transcript request form is also included in this catalog.

The student should contact his/her school, college, or university admissions office and request an appointment with an academic advisor. The student should present to the advisor the MFRI official transcript listing the course or courses for which the student is seeking college credit. Refer the advisor to the *National Guide to Educational Credit for Training Programs*, the standard reference tool used by U.S. colleges and universities to award credit for workplace education and training. At that time, the advisor will notify the student as to the acceptability of the MFRI course(s) and level of academic placement.

Please note, once again, that successful completion of an ACE/CREDIT-evaluated MFRI course does not imply automatic college credit. The individual school, college, or university must accept it.

In order to be able to qualify for the ACE equivalency, you must have taken the course after a specific date. Listed below are the earliest dates for the Maryland Fire and Rescue Institute and National Fire Academy classes that are acceptable.

| | | |
|---|----------------|------------------|
| Advanced Life Support Refresher..... | September 2004 | – Present |
| Advanced Medical Life Support..... | May 2003 | – Present |
| Aerial Apparatus Operator, Truck Company Operations (<i>formerly Truck Company Operations</i>)..... | July 1982 | – Present |
| Aircraft Rescue Fire Fighter..... | August 2003 | – Present |
| Aircraft Rescue Firefighting-Driver/Operator..... | August 2003 | – Present |
| Arson Awareness for the Company Officer..... | January 1998 | – October 2004 |
| Basic Life Support and Hazardous Materials Response..... | October 1994 | – Present |
| Building Construction: Noncombustible and Fire Resistive..... | July 1983 | – June 2002 |
| Building Construction: Principles, Wood and Ordinary Construction..... | July 1982 | – June 2002 |
| Commanding the Initial Response..... | June 1985 | – November 1989 |
| Emergency Care Basic (EMTA)..... | July 1989 | – July 1996 |
| Emergency Medical Services Officer I..... | September 1996 | – Present |
| Emergency Medical Technician Basic (EMTB)..... | July 1995 | – Present |
| Emergency Medical Technician Refresher..... | June 1998 | – Present |
| Emergency Response to Terrorism: Basic Concepts..... | August 1998 | – Present |
| Emergency Response to Terrorism: Incident Management..... | July 1999 | – Present |
| Emergency Response to Terrorism: Strategic Considerations for Company Officers..... | April 2000 | – Present |
| Emergency Response to Terrorism: Tactical Considerations: Company Officer..... | April 2000 | – Present |
| Emergency Response to Terrorism: Tactical Considerations: Emergency Medical Services..... | April 2000 | – Present |
| Emergency Response to Terrorism: Tactical Considerations: Hazardous Materials..... | April 2000 | – Present |
| Emergency Vehicle Operator..... | July 1996 | – Present |
| Engine Company Fireground Operations (<i>formerly Fireground Operations I: Engine Company Operations</i>)..... | July 1985 | – Present |
| Fire Arson Detection for First Responders..... | July 1996 | – Present |
| Fire Cause Determination for Company Officers..... | August 1994 | – Present |
| Fire Command I..... | April 1985 | – June 1997 |
| Fire Department Equal Opportunity Officer I..... | March 2004 | – Present |
| Fire Department Safety Officer..... | October 2004 | – Present |
| Fire Inspector I..... | July 1997 | – Present |
| Fire Inspector II..... | July 1997 | – Present |
| Fire Inspector III..... | April 2000 | – Present |
| Fire Officer I Version 2..... | January 2000 | – Present |
| Fire Officer II Version 2..... | January 2000 | – Present |
| Fire Officer III..... | October 1998 | – Present |
| Fire Officer IV..... | January 2000 | – Present |
| Fire Service Supervision: Personal Team Effectiveness..... (<i>formerly Personal Effectiveness and Fire Service Supervision; Personal Effectiveness</i>) | August 1983 | – January 1992 |
| Fire Service Supervision: Team Effectiveness (<i>formerly Team Effectiveness</i>)..... | November 1983 | – January 1992 |
| Firefighter I..... | July 1993 | – Present |
| Firefighter II..... | January 1994 | – Present |
| Firefighter Health & Safety Officer: Program Implementation and Management..... | May 1986 | – December 1999 |
| Firefighter Safety and Survival: Company Officer’s Responsibility..... | June 1985 | – December 1999 |
| Firefighter Survival and Rescue..... | August 2001 | – Present |
| First Responder Basic..... | July 1988 | – Present |
| Geriatric Education for Emergency Medical Services..... | September 2003 | – Present |
| Hazardous Materials Incident Analysis..... | June 1981 | – December 2001 |
| Hazardous Materials Operations..... | September 1995 | – Present |
| Hazardous Materials Technician..... | January 1999 | – Present |
| Health and Safety Officer..... | July 1994 | – Present |
| Identifying and Recognizing Hazardous Materials..... | March 1990 | – September 1999 |
| Incident: Basic Concepts Identifying and Recognizing Hazardous Materials: Incident: Concept Implementation..... | August 1992 | – September 1999 |
| Incident Command System..... | May 1988 | – December 1999 |
| Incident Command Systems for Emergency Medical Services..... | September 1999 | – Present |
| Incident Command for Highrise Operations..... | February 2000 | – Present |
| Incident Command for Structural Collapse Incidents..... | April 2000 | – Present |
| Incident Management System..... | January 1999 | – Present |
| Incident Safety Officer..... | February 1995 | – Present |
| Infection Control for Emergency Response Personnel: The Supervisor’s Role and Responsibilities..... | December 1990 | – December 1999 |
| Initial Company Tactical Operations..... | June 1986 | – January 1990 |
| Leadership and Supervision..... | July 1983 | – June 1997 |
| Leadership I: Strategies for Company Success..... | April 1989 | – Present |
| Leadership II: Strategies for Personal Success..... | April 1989 | – Present |
| Leadership III: Strategies for Supervisory Success..... | April 1987 | – Present |
| Managing Company Tactical Operations: Decisionmaking..... | May 1991 | – June 2010 |
| Managing Company Tactical Operations: Preparation..... | May 1991 | – December 2007 |
| Managing Company Tactical Operations: Tactics..... | May 1991 | – June 2004 |

| | | |
|--|----------------|-----------------|
| Managing in a Changing Environment | September 1999 | – Present |
| Methods of Instruction: Instructor Training Course, Instructor I, Version 2..... | July 1998 | – Present |
| (Version 1: Methods of Instruction Level I: Teaching Techniques)..... | January 1992 | – June 1998 |
| Methods of Instruction: Instructor Training Course, Instructor II, Version 2..... | July 1999 | – Present |
| (Version 1: Methods of Instruction Level II: Teaching and Program Development Techniques)..... | January 1992 | – June 1999 |
| NIMS Incident Command System for Emergency Medical Services..... | January 2006 | – Present |
| NIMS Incident Command System for the Fire Service..... | March 2005 | – Present |
| Paramedic Refresher (<i>formerly Paramedic Update and Refresher Course II</i>)..... | September 2004 | – Present |
| Pediatric Education for Prehospital Providers..... | January 2003 | – Present |
| Prehospital Trauma Life Support..... | October 2004 | – Present |
| Personal Effectiveness | August 1983 | – December 1999 |
| Preparation for Initial Company Operations | July 2005 | – Present |
| Preparing for Incident Command..... | December 1984 | – November 1989 |
| Principles of Building Construction: Combustible..... | October 2001 | – Present |
| Principles of Building Construction: Noncombustible..... | October 2001 | – Present |
| Pump Operator (<i>formerly Pumps</i>)..... | July 1984 | – Present |
| Rescue Technician—Confined Space Rescue..... | April 2003 | – Present |
| Rescue Technician—R3I Swiftwater Rescue Technician Advanced Course | January 2000 | – Present |
| Rescue Technician—R3I Swiftwater Rescue Technician Unit I..... | January 2000 | – Present |
| Rescue Technician—Site Operations and Vehicle Machinery Rescue | October 2002 | – Present |
| Rescue Technician—Structural Collapse Technician | January 2003 | – Present |
| Rescue Technician—Technical Rope Rescue | January 2000 | – Present |
| Rescue Technician—Trench Rescue Operations | January 2000 | – Present |
| Shaping the Future..... | September 1999 | – Present |
| Shipboard Firefighting for Land Based Firefighters | January 1999 | – Present |
| Team Effectiveness..... | November 1983 | – December 1999 |
| Truck Company Fireground Operations | March 1989 | – Present |
| <i>(formerly Fireground Operations II: Truck Company Functions)</i> | | |

ACE/CREDIT SERVICE

The American Council on Education's College Credit Recommendation Service (ACE CREDIT) has evaluated and recommended college credit for 71 of MFRI's courses. The American Council on Education, the major coordinating body for all the nation's higher education institutions, seeks to provide leadership and a unifying voice on key higher education issues and to influence public policy through advocacy, research, and program initiatives.

ACE CREDIT connects workplace learning with colleges and universities by helping adults gain access to academic credit at colleges and universities for formal courses and examinations taken in the workplace or other settings outside traditional higher education.

For more than 30 years, colleges and universities have trusted ACE CREDIT to provide reliable course equivalency information to facilitate their decisions to award academic credit. For more information, visit the ACE CREDIT website <http://www.acenet.edu/acecredit>.

RULES AND REGULATIONS

Mission

The Maryland Fire and Rescue Institute of the University of Maryland is the State's comprehensive training and education system for emergency services. The Institute plans, researches, develops, and delivers quality programs to enhance the ability of emergency service providers to protect life, the environment, and property.

Program Offerings

The University of Maryland and the Maryland Fire and Rescue Institute do not discriminate on the basis of race, color, creed, sex, sexual orientation, marital status, personal appearance, age, national origin, political affiliation, physical or mental disability, or on the basis of the exercise of rights secured by the First Amendment of the United States Constitution.

The Maryland Fire and Rescue Institute will schedule training programs in the interest of all Maryland ambulance, fire, and rescue companies to the extent that Maryland Fire and Rescue Institute staff time and budget will permit.

The requirements outlined below are important factors in maintaining an effective emergency service-training program in the State of Maryland. The Maryland Fire and Rescue Institute of the University of Maryland establishes the conditions of student participation. The University of Maryland and the Maryland Fire and Rescue Institute are equal opportunity institutions with respect to both education and employment.

Maryland Fire and Rescue Institute classes are also governed by the University's Policy on Sexual Harassment found in the "Campus Policy and Procedures on Sexual Harassment."

Disruptive Behavior and Harassment

Inappropriate student conduct that disrupts a class or other Institute function, or threatens the safety of the student or others, is considered a serious offense. Harassment, making threats, or acting violently are all serious disciplinary offenses. The Maryland Fire and Rescue Institute strictly adheres to the guidelines on classroom disruption and academic integrity established by the University of Maryland's Office of Judicial Programs. Copies of these guidelines are available upon request from any MFRI office.

MFRI Instructors have full authority to discipline in the class sessions, and the Institute will uphold their valid decisions.

Tobacco products are not to be used in class. Smoking is prohibited in indoor locations.

Turn off pagers and cellular phones during class. Exceptions are at the discretion of the instructor.

Americans with Disabilities Act Accommodation Request

An individual seeking accommodation under American with Disabilities Act must make a formal request in writing, listing the specific accommodation(s) being requested and attach supporting documentation no more than three years old, to support the request. This request should be made at the beginning of the course. Forms are available upon request at the time of registration.

Information on reasonable accommodation under the American with Disabilities Act, questions or complaints concerning ADA, or any of the other applicable federal or state laws regarding discrimination, shall be referred to the

MFRI Headquarters or a regional center, which will institute the proper procedures.

MFRI classes may be physically challenging. Instructors should be notified of any condition that could affect the student's ability to perform evolutions or that could jeopardize safety. We request that any person with known problems make this information available to the Institute at the beginning of the class for a decision to be made regarding safe participation.

Admission to Programs is available to:

- Bona fide and insured members of Maryland state, county, and municipal departments providing ambulance, fire, and rescue services.
- Bona fide and insured members of out-of-state departments (one of the previous categories) that are considered part of a Maryland county or have first-due response in the State of Maryland.
- Federal fire service personnel assigned to installations that respond in Maryland may register on a space-available basis.
- Other students may register on a space-available basis upon payment of the registration fee for that program.
- Industrial, Department of Defense or other agencies requesting specific programs based on a fee for service agreement.

Each student may be asked to produce valid membership identification. No individual under the age of 16 will be enrolled as a participant. The student's parent or guardian must sign a form giving permission for that student, age 16 or 17, to enroll in the class. Those students must also have a responsible officer from their department sign the form verifying their membership in that department. The Verification of Membership form is available during the orientation session and must be completed and returned to the field instructor **no later than** the second meeting of the class. A copy of the Verification of Membership form is available at registration.

Non-members of an emergency service department must pay a non-refundable tuition fee at the time of registration. Persons in this category will be permitted to enroll in class as space permits.

In general, to begin a program, there must be a minimum enrollment of 15 persons with a maximum of 25 persons per class. For any course to continue, a minimum of 10 students, capable of meeting the attendance requirements is required. If the class size drops below 10 students capable of meeting the attendance requirements the class will be canceled and no credit will be recorded for the work completed. A minimum of 10 and a maximum of 15 students are required for the Instructor Training program. Students must complete the general requirements for all field programs.

Student Management and Registration System

Individuals wishing to apply for MFRI classes should use the system in place for each county or jurisdiction, or contact the appropriate MFRI registration center (Regional Training Centers, Special Programs, Field Programs at College Park, or designated local jurisdiction).

MFRI Program Application Process

- Classes will be advertised and the application process will begin 60 days prior to the class start.
- Applicants may apply either by telephone, mail, fax, or at www.mfri.org to the registration center handling that program.
- Application information consists of: the applicant's name, the last four digits of his or her social security number, telephone number, department affiliation, class log number, location, and EMS expiration date if applicable.

- Applicants may cancel their seating with the registration center at any time without penalty up to 3 business days prior to the class start date. Any cancellation received within 3 business days of the class start without just cause will be considered as a “no-show.”
- At the time of application, the registration center will take applicable student information for the class. The application process will close 20 days prior to the class start, at which time seats will be prioritized and confirmed and standby numbers assigned if needed. Students may contact the registration center at any time to check on their status.
- Lack of sufficient applicants 20 days prior to the class start may be cause for cancellation of the class (applicants will be notified of class cancellation).
- The registration center will pre-register applicants and check for any flags.
- The registration center will notify applicants when a change in status has occurred (applicants not accepted due to flag or change in status from standby to accepted).
- The departmental representative or applicant may check the application status between day 20 and start of class.
- The registration center will forward a list of applicants to any department having members on the list for their verification, and to notify applicants of their status (the list will be provided between day 20 and the start of class).

MFRI Registration Process

- The registrar uses the priority list to seat applicants for the class. In the event that confirmed applicants do not achieve maximum class size, seats will be filled using the prioritized standby list. If a person on the standby list is not at the class start, the standby number is forfeited and the first available person on the standby list will fill the seat. Walk-in applicants who can show proof of prerequisites and department membership may fill any additional open seats.
- No-shows (confirmed applicant) will be identified and names will be provided to the registration center for further processing. There is no penalty for any standby applicant not showing for class start.
- Course material will be distributed to seated applicants.

Class Management

- The registration center will flag any applicant’s record upon notification of a no-show.
- The appropriate department/agency will be notified of a confirmed applicant’s failure to appear for a class start.
- Upon receipt by the registration center of an acceptable written justification for the applicant’s failure to show at a given class start from the sponsoring department/agency, the flag will be removed from the applicant’s record.
- As a class progresses, the instructor will notify the registration if a student drops from the class.
- The sponsoring department/agency will be notified of a student’s dropping from the class.

Class Completion

- Student grade reports, pocket cards, and station certificates will be generated either manually or electronically. Grade reports, pocket cards, and station certificates will be mailed to the sponsoring department/agency. Each student’s individual grade report and pocket card will be sealed in a separate envelope for distribution by the sponsoring agency.

Procedure for Dealing with No-Shows

First Offense

A letter is sent to the chief of the department stating that the student failed to appear at the class start. He/she will be flagged and given a low priority for a period of 6-months. The flag would remain until the end of the 6-month period unless (1) a letter from the department is received indicating the department has handled the problem and requesting the flag be removed, or (2) the student is able to successfully complete another MFRI class of more than 12 hours.

For open enrollment courses offered for a fee, students who fail to show for a class and do not call at least 3 business days in advance, will be billed a \$40.00 no-show fee. If the bill is not paid in 90 days, the University will automatically turn the outstanding account over to a collection agency, which could affect the student's credit. This can be avoided by notifying the registration department 3 or more business days prior to the start of class.

Second Offense

The student is restricted from registering in any MFRI class for a period of 1-year and a letter is sent to the chief of the department. During the second offense the student automatically goes to the end of the preregistration list, being seated only if space is available.

Third Offense

The student is suspended from registering in any MFRI class for a period of 1-year and a letter is sent to the chief of the department. During the third offense the student may not preregister or sit for any class without special permission of the Director of MFRI.

After an offense a student must subsequently enroll and satisfactorily complete a program of more than 12 hours to remove the flag.

Procedure for Dealing with Dropouts

First Offense

A letter is sent to the chief of the department. The student/department will be responsible to pay for the cost of materials if not properly returned. Failure to pay the costs will result in the student being flagged and given low priority to register for classes for 6 months.

Second Offense

A letter is sent to the chief of the department. The student/department will be responsible to pay for the cost of materials if not properly returned. Failure to comply with the above requirements will result in suspension of the student for 1-year from participating in any MFRI classes.

A student will be considered a drop-out when:

1. Three consecutive sessions have been missed and the student has not contacted the instructor or the regional center within a week after the third absence.
2. One mandatory session has been missed and the student has not contacted the instructor or the regional office within a week following the absence to make arrangements for the makeup.

3. Any identified extenuating circumstance which may cause an extended absence and no contact with the instructor or the regional office will be handled on an individual case-by-case basis in consultation with the section manager.

In any of the above instances, when a student makes contact, a counseling session must be held. It is not the responsibility of the instructor to contact a student who misses sessions of a course.

General Student Requirements

Mental and Physical Fitness

The responsibility for student physical and mental fitness to perform tasks within a training program rests with the sponsoring authority.

Instructors shall monitor conditions, which might impact the student's health and safety during the training activity and should take whatever action he or she might deem appropriate in the maintenance of health and safety.

Instructors shall maintain, in strict confidence, any temporary condition made known to them by the student, which could affect the student's health or physical well being. For any such condition, the student may be excused from further practical evolutions as necessary until such time as the condition is remedied. Students may make arrangements through their instructors, or the regional center, for making up any missed mandatory sessions.

Instructors noting any condition, which, in his or her opinion, warrant concern for the student's physical or mental well being, shall discreetly inquire as to the student's condition. In such cases, the student shall be excused from practical skills evolutions until a medical examination has been obtained attesting to the student's ability to perform the requirement. Should the student choose to rejoin the class, he/she must provide documentation on departmental letterhead, from either the chief or the training officer of their department, stating that the student is physically fit to resume participation. Once the student has been cleared to participate, if feasible, arrangements to makeup missed materials and continuation in the class should be made through the regional center.

Respiratory Protection Notice

Breathing apparatus training requires great physical effort. It can be hazardous to persons with heart or respiratory problems. You should **NOT** participate unless you are sure of your own physical capabilities. Students must be clean-shaven at all areas where the SCBA face piece meets the skin. Compliance with applicable respiratory protection standards, including OSHA 29 CFR 1910.134, is the responsibility of the student's employer or emergency services organization.

Dress

It is each student's responsibility to use good judgment in selecting attire that projects a professional image and is appropriate for both climate differences and class activities. Students will not wear clothing that may be considered offensive by another individual or may cause a hostile working environment among the students or instructors. The class instructor has the authority to make a determination that a student's attire may be inappropriate. Students wearing attire, which is determined to be inappropriate, will be required to change into more appropriate clothing before being allowed to continue class.

Appropriate attire for classroom purposes would be something similar to a standard station uniform consisting of golf or t-shirt, long trousers or slacks, belt, shoes and socks. Inappropriate attire would be shorts, sleeveless tops, and bare midriffs. Exceptions can be made by the instructor to meet the needs of practical sessions (e.g. bathing suits for EMT practical examinations, situational reviews, etc.).

The National Fire Academy’s dress code is offered as a model and is required for NFA classes:

- *Men: Shirts with collars (no T-shirts), slacks, including departmental uniforms, shoes and socks.*
- *Women: Dresses, blouses with slacks or skirts, including departmental uniforms (no T shirts), and shoes.*
- *Optional items include sweaters, sport coats, blazers, etc.*

Personal Protective Equipment

For your own protection, the Maryland Fire and Rescue Institute requires specific items of appropriate protective equipment to be used during practical evolutions.

The following protective clothing will be required during any MFRI class:

Aircraft Rescue Firefighters/Interior Structural Firefighting; Flammable Liquid and Gas Firefighting - Students are required to wear firefighter protective clothing consisting of bunker coat, bunker pants, boots, helmet, gloves, hood, positive-pressure SCBA and PASS device, all conforming to NFPA standards. Bunker gear with nylon liners is not acceptable due to the increased possibility of steam burns. (For those departments, which do not as yet have PASS devices, the Institute has a limited supply on hand which may be used during evolutions. Students may be required to provide their own SCBA.)

Incipient Brigade Firefighting - Students are required to wear long-sleeved work shirts made of a durable material that covers the upper torso; coveralls (preferably all material to be fire resistant or Nomex), cotton or leather work gloves, safety goggles or safety glasses with side shields, hard hat, and safety shoes or boots.

Other activities - Appropriate protective clothing and equipment as noted in course descriptions or as designated by the instructor. All above equipment must meet NFPA or other applicable standards.

Emergency Care program - Students can provide self-protection both in the classroom and in the field by acquiring their own set of basic emergency care tools. Having certain tools readily available enhances patient care. The following equipment is suggested: a pocket penlight, a stethoscope, a pocket facemask with one-way valve and HEPA filter, and a set of paramedic (heavy duty) scissors.

Requirements for Successful Completion

Attendance and Make-Up Sessions

Offerings shall consist of a specific number of class sessions required as presented on the respective discipline information sheet. Students are expected to attend all sessions. There are occasions where students may not be able to attend due to emergencies. Students may be absent from a course for a number of class sessions as outlined below:

| Class Length | Permitted Misses |
|---------------------|-------------------------|
| 3 - 12 hours | 0 |
| 13 - 30 hours | 1 |
| 31 - 60 hours | 2 |
| 61 hours or more | 3 |

Instructors will keep attendance records and may authorize make-up sessions. Instructors will use the Verification of Make-up form. It is the responsibility of the student to arrange for make-up sessions in a timely manner and to carry

the make-up form to the make-up site and return it to the authorizing field instructor.

Make-ups for missed practical sessions must be made-up in a regularly scheduled class.

Only those students who are officially enrolled in the course may attend class sessions.

MFRI will make reasonable efforts to accommodate those students with scheduling difficulties.

Students failing to meet all course requirements will be incomplete. The student will have until the end of the current calendar or fiscal year, whichever favors the student, to satisfy all incomplete grades.

The regional office must approve the student's attendance at any make-up session.

Student Evaluation by Instructor

Prior to the completion of any course, the field instructor is required to submit a written evaluation of each student. The student must receive a **SATISFACTORY** evaluation to be eligible to take the final exam. Evaluations will consider class participation, homework assignments, completion of skills check-off where applicable, and effort applied in all course activities, skills development, teamwork, cooperation and strict observance of the rules of safe practice in performing skills evolutions.

The instructor uses a Student Counseling Report to advise the student of performance. Refusal by the student to sign the counseling report may result in suspension from the course. Repeated counseling for performance may result in a student being dismissed from the course.

Testing Policy

Examinations may be administered at various points throughout the courses offered by the Maryland Fire and Rescue Institute. A final examination is administered for most courses. The EMTB written and practical examinations, and the First Responder written examination are administered by MIEMSS. The First Responder Refresher and the EMTB Skills and Refresher written and practical examinations are administered by MFRI.

Examinations will be based upon the objectives, job performance requirements (JPRs), of the course and will include materials presented during classroom sessions, practical sessions, and material found in the printed texts.

The Coordinator or delegate will verify the student has successfully completed the prerequisite course prior to registering for the class.

It is the responsibility of the instructor to consult with the students from time to time to advise students if performance is at the satisfactory level.

Each examination has a pass/fail point. A minimum score of 70% is required to pass any examination. Some Advanced Life Support Program offerings may require a higher minimum score to pass the examination.

If a student fails an examination, the student may initiate a request to re-test that examination with the appropriate MFRI office. Written and practical examinations in all courses offered by the Maryland Fire and Rescue Institute are eligible for re-testing.

Any retest approved and administered must meet the following criteria:

A student scoring between 60% and 69% may exercise the retest option after appropriate counseling and/or re-training. There is no retest opportunity if a student scores below 60% on an examination. In either instance, the student:

1. Must retake the module and pass the module written and practical exam.
2. The student may be required to drop the current class and join another EMT class.
3. The Regional Coordinator shall provide a list of available classes and locations for the student.
4. The student will join the class at the appropriate module to continue the training.
5. The student must complete his/her EMT training program by the end of the fiscal year or calendar year whichever is more advantageous to the student. If a student scores below 60% on a second module or practical examination, the student must drop the class. The student will need to register in and take another class.

The student may exercise the retest option one time for each examination. In the EMTB program, a student may fail and retest any TWO written module examinations AND any TWO module skills examinations; but a third fail in either, OR a fail in any re-test requires that the student be dismissed from the course.

The student must re-test within 30 days of the examination. Module or mid-term examinations must be re-tested prior to the next examination point within a course. All arrangements for retesting shall be made through the program Coordinator.

The student must score 70% on the retest to pass the course.

If a student is unable to take or misses the final examination, the student must contact the appropriate MFRI office within one week of the final to make up the examination. A student that has not completed all course requirements will have until the end of the current calendar year or fiscal year to do so, whichever is most beneficial to the student.

All examinations administered by MFRI are subject to the University of Maryland Policy on Academic Dishonesty.

Policy on Textbooks

The Maryland Fire and Rescue Institute will provide textbooks for use by students during MFRI classes. The students have the option of turning back a usable textbook to the Institute at the conclusion of a course, or reimbursing MFRI for that textbook at a reduced cost. Some contract classes will include the cost of textbooks. Textbooks that are turned back to the Institute may not be marked in, highlighted, or soiled in any fashion other than normal wear and tear. These books are then reissued to other students. Books may be either new or used textbooks. Bills for the books are sent from the Bursar's Office of the University of Maryland and payment is rendered to the University of Maryland. Should a student be more than 90 days delinquent in paying for a textbook, he/she will not be permitted to register for any MFRI class until proof of payment is made. **Books must be turned in at the end of a class or the student/department will be charged.**

Station Certificates

Effective January 1, 1996 MFRI resumed the policy of issuing certificates to the fire stations participating in MFRI classes, listing the names of the students completing the class. Station certificates will be issued for the following classes:

- Emergency Medical Technician
- Emergency Services Structural Collapse
- Emergency Vehicle Operator
- EMS Officer I
- Firefighter I
- Firefighter II
- Fire Officer I
- Fire Officer II
- Fire Officer III
- Fire Officer IV
- First Responder Basic
- Hazardous Materials Operations
- Hazardous Materials Technician
- Level II Instructor
- Rescue Technician—Confined Space Rescue
- Rescue Technician—R3I Swiftwater Rescue Technician Advanced
- Rescue Technician—R3I Swiftwater Rescue Technician Unit I
- Rescue Technician—Site Operations
- Rescue Technician—Technical Rope Rescue
- Rescue Technician—Trench Rescue Operations
- Rescue Technician—Vehicle Machinery Extrication

Information for Host Organization

The organization hosting training in its facility must agree to the class being held as the primary function on the class meeting nights/days. This will eliminate distractions and will allow the students the maximum opportunity to learn with a minimum of interruptions. If this cannot be done, the class will be moved to a better location.

The organization hosting a training session must provide an officer as a liaison person between the instructor and the company. If the liaison is not enrolled in the class, he/she must be readily available during class sessions. This liaison person will assist the field instructor in the coordination of activities related to the operation of the class.

The host organization will provide to all enrolled students the use of apparatus, equipment, and appliances as may be required for the operation of the class. Tables and chairs for all students and a chalk/white board of sufficient size (4x8) will be mandatory. The host organization shall agree to maintain a comfortable and appropriate learning environment within the classroom.

Students who must respond to alarms during class should do so with minimum disturbance to the class. Students enrolled in the class should be taken only as a last resort.

All students are expected to assist the host organization in returning the station and equipment to order upon completion of each session.

Hydration Policy

The students shall follow these hydration recommendations for all practical evolutions.

Prehydration

- The goal of prehydrating is to start the training session euhydrated (properly hydrated) and with normal plasma electrolyte levels. Prehydrating should begin at least several hours before the training session to enable fluid absorption and allow urine output to maintain normal levels.
- Prior to the training session, students should slowly drink one ounce of water for every ten pounds of body weight at least four hours before the training session. If the student does not produce urine, or if the urine is dark or highly concentrated, the student should slowly drink an additional one ounce of water for every 20 pounds of body weight about two hours before the training session.
- Do not substitute beverages with alcohol or caffeine for water. Caffeine and alcohol act as diuretics and can exacerbate dehydration.
- Students should not attempt to hyperhydrate prior to a training session as it has been shown to provide no clear physiologic or performance advantage and can increase the risk of hyponatremia, a potentially lethal condition.

Preventing Dehydration

- The goal of drinking during the training session is to prevent excessive dehydration and excessive changes in electrolyte balance. The specific amount and rate of fluid replacement is highly variable depending on individual sweat rate, session intensity and duration, and environmental conditions.
- Ideally, students should create a customized fluid replacement plan based on pre and post training session weight with the goal to prevent loss of more than 2% of baseline body weight during activity.
- In the absence of an individualized fluid replacement plan, students should drink water slowly and continuously during the breaks provided during the training session. Electrolyte replacement beverages may be beneficial in the most extreme training conditions, but the primary goal should be volume replacement, which is best accomplished with water.
- Students should continue fluid replacement even if they do not feel thirsty. By the time thirst is detected, the student is already dehydrated which results in decreased performance and increased health and safety risk.

Rehydration

- The goal of rehydration is to fully replace any fluid and electrolyte deficit.
- Individuals should drink 20 ounces of fluid for every pound of body weight lost during the training session. If the total body weight lost during training is unknown, students should drink slowly and continuously until urine is no longer dark or highly concentrated.
- Consuming beverages and snacks with sodium will help expedite rapid and complete recovery by stimulating thirst and fluid retention.

EQUIVALENCY CHALLENGE PROGRAM

The Institute offers an opportunity for emergency services personnel to challenge identified courses. Established July 1, 1987, the Equivalency Challenge is for individuals who desire credit for MFRI courses and who have successfully completed similar courses.

The steps for equivalency challenge are as follows:

Address a letter to the Field Programs Section (FPS) of MFRI requesting equivalency challenge for a particular course. Include in the letter:

- Your full name
- Social Security number
- Home address
- Telephone numbers
- Department affiliation

Attach source documentation. This includes certificates or letters that attest to successful completion of the course, documentation of course length, and details of experience that would apply to equivalency challenge. Source documentation is the original or certified copies of the original material that may include:

- Certificates or letters of successful completion
- Course syllabus and hours
- Course objective and related experience

The source documentation should also include the objectives of the course. The course or experience in question must be equivalent to the objectives of the course for which equivalency is requested. It is the responsibility of the student to develop this comparison.

This letter should be sent to your respective MFRI regional center (see list). Through that center a final decision will be made. If approval is granted, you will be scheduled for the examination. This examination will be the current examination used in the MFRI course. A re-test option is available by request following the guidelines for re-testing examinations. Upon successful completion of the MFRI examination, you will receive full credit for the MFRI course. An individual who applies for equivalency challenge for a course with a prerequisite(s) must have completed any prerequisite(s) either by taking the course or through equivalency challenge prior to that application. Individuals applying for equivalency challenge are required to meet the Field Programs Section (FPS) regulations pertaining to the admission of the program(s) they are challenging.

MFRI will also recognize the following:

- Any previous edition of a MFRI course to the current edition of the course.
- Any corresponding level of certification to the current edition of the same name MFRI course.
- Any corresponding level of qualified but failed to apply for certification matched to the current edition of the same-name MFRI course.

COURSE OFFERINGS

ACUTE CORONARY SYNDROMES COURSE (EMS 311) (8 hours)

The prerequisites for this course are current certification as an ALS provider or current enrollment in a program leading to certification or licensure at the advanced life support level.

The objective of this course is to provide cardiac rescue technicians, paramedics, nurses and other health care professionals with the knowledge and skills required to acquire and interpret 12-lead ECGs for the development of a clinical treatment plan.

The Acute Coronary Syndromes course is an 8-hour course offered either as two 4-hour sessions or as a 1-day workshop. The first portion of the course focuses on the role of the 12-lead ECG in prehospital medicine, basic interpretation, acquisition and transmission. The second portion takes what was learned in the previous session and applies it to the assessment and management of the patient with an acute coronary syndrome.

Successful completion requires attendance for all modules and a minimum score of 75% on the final written examination.

The continuing education hours are approved by the Maryland Institute for Emergency Medical Services Systems (MIEMSS) www.miemss.org and the Continuing Education Coordinating Board for Emergency Medical Services (CECBEMS) www.cecbems.org and are recognized by the National Registry of Emergency Medical Technicians (NREMT) www.nremt.org.

ADVANCED BURN LIFE SUPPORT (EMS 315) (8 hours)

The prerequisite for this course is current certification as an Emergency Services Provider.

The objective of this course is to provide health care providers of all levels with the knowledge and skills to assess and manage the burn patient during the first 24 hours post-injury.

The Advanced Burn Life Support Provider Course is an 8-hour course for physicians, nurses, physician assistants, nurse practitioners, therapists and emergency service providers. This course provides guidelines in the assessment and management of the burn patient during the first 24 hours post-injury. Following a series of lectures, case studies are presented for group discussions. An opportunity to work with a simulated burn patient to reinforce the assessment, stabilization and the American Burn Association transfer to a Burn Center will be given.

Successful completion requires attendance for all modules, a minimum score of 75% on the written examination, and successful performance in the practical skills evaluation.

The continuing education hours are approved by the Maryland Institute for Emergency Medical Services Systems (MIEMSS) www.miemss.org and the Continuing Education Coordinating Board for Emergency Medical Services (CECBEMS) www.cecbems.org and are recognized by the National Registry of Emergency Medical Technicians (NREMT) www.nremt.org.

ADVANCED CARDIAC LIFE SUPPORT (EMS 314) (8 hours)

The prerequisite for this course is current Advanced Cardiac Life Support Provider certification.

The objective of this course is to provide healthcare providers with the knowledge and skills to assess and manage a patient with a cardiac emergency.

The Advanced Cardiac Life Support (eACLS) course is a customized course for prehospital and hospital professionals. The program provides a case-based approach to advanced cardiac life support training. It is a highly interactive online program including more than 200 live-action video clips and 500 photos, illustrations, and animations to reinforce the student's ability to assess and manage life-threatening cardiac and respiratory emergencies. The eACLS is comprised of ten interactive case studies focusing on serious respiratory and cardiac emergencies. A resources section is also available allowing the student to review ECGs, pharmacology and electrical therapy at any time.

Successful completion requires completion of all ten online case studies and an online written examination. The final written examination is comprised of 50 multiple-choice questions, five relating to each case study. The questions are based on the case studies in the eACLS course and include ECGs when appropriate. Each question is worth two points. Students will be given one hour to complete the written examination. Successful completion requires proficiency in the skills evaluation and a minimum score of 84% on the written examination.

The eACLS course has been developed by Jones and Bartlett Publishers in partnership with the American College of Emergency Physicians (ACEP) and the National Safety Council (NSC); the content covered in the eACLS course is consistent with the 2000 International Consensus Guidelines for CPR and ECC, and covered in other nationally recognized ACLS courses. This course has been approved for continuing education hours by the Maryland Institute for Emergency Medical Services Systems (MIEMSS) www.miemss.org and the Continuing Education Coordinating Board for Emergency Medical Services (CECBEMS) www.cecbems.org and recognized by the National Registry of Emergency Medical Technicians (NREMT) www.nremt.org.

ADVANCED DISASTER LIFE SUPPORT (EMS 321) (16 hours)

The prerequisite for this course is successful completion of Basic Disaster Life Support (BDLS).

The objective of this course is to provide health care providers with the knowledge and skills required to recognize and manage "all-hazards" threats (nuclear, biological, chemical, explosive and natural disasters).

The Advanced Disaster Life Support Course is an advanced practicum of the principles introduced in Basic Disaster Life Support. The instructor-led presentation of ADLS is a sixteen-credit-hour course: eight hours of classroom lectures and eight hours of hands-on practicum exercises.

ADLS includes lectures on the following: MASS Triage, community and hospital disaster planning; media and communications during disasters; and mass fatality management. In addition, small group interactive sessions allow students to work through a series of difficult questions of disaster management in a tabletop format. During the "hands on" day of training four skills stations reinforce the previous day's learning. These skills stations are as follows:

- **MASS Triage™** - This challenging station allows the students to practice the concepts of the disaster paradigm with an emphasis on patient triage. Students must practice triage on simulated disaster victims while attempting to manage a chaotic scene and request appropriate resources.
- **PPE and Decontamination** - This station teaches important concepts about the use of personal protective equipment and decontamination techniques. Students are given the opportunity to wear PPE and participate in a simulated decontamination while attempting to render medical care.
- **Disaster Skills** - This station teaching important information about vital skills necessary for medical disaster management. Students are taught vital information on the Strategic National Stockpile and proper Mark-I kit use. Students are also allowed to practice smallpox immunization.
- **Human Patient Simulator** - Recognition of victims of a chemical and biological disaster is paramount. This station is designed to reinforce the detection and proper treatment of conditions that may occur during disasters

that we do not normally treat. Treatment of chemical, biological, and traumatic patients is covered. The use of these high-fidelity simulators provides a more realistic experience than normal manikins would allow.

Successful completion requires attendance for all modules and successful performance in the practical skills evaluation. In order to maintain credentials, a renewal course is required every three years.

The continuing education hours are approved by the Maryland Institute for Emergency Medical Services Systems (MIEMSS) www.miemss.org and the Continuing Education Coordinating Board for Emergency Medical Services (CECBEMS) www.cecbems.org and are recognized by the National Registry of Emergency Medical Technicians (NREMT) www.nremt.org. Continuing education for nurses, physicians and other allied health professionals is also available.

ADVANCED HAZMAT LIFE SUPPORT (EMS 320) (16 hours)

The course presentation is designed for EMS and other health professions including paramedics, nurses, toxicologists, physicians and pharmacists. The prerequisites for this course are current certification as a paramedic and Hazardous Materials Technician.

EMTb's, CRTs and EMT-Is may attend the course but due to the advanced level of the course material they will not be verified in the course but will receive a certificate of completion and continuing education credits provided solely by AHLS and MIEMSS.

The objective of this course is to train the participant to demonstrate rapid assessment of hazmat patients, recognize toxic syndromes (toxidromes), demonstrate ability to medically manage hazmat patients, apply the poisoning treatment paradigm and identify and administer specific antidotes.

Successful completion requires attendance for all modules and a minimum score of 80% on the written evaluation.

The continuing education hours are approved by the Maryland Institute for Emergency Medical Services Systems (MIEMSS) www.miemss.org and the Continuing Education Coordinating Board for Emergency Medical Services (CECBEMS) www.cecbems.org and are recognized by the National Registry of Emergency Medical Technicians (NREMT) www.nremt.org. Continuing education credit is granted through the American Medical Association (AMA), American College of Emergency Physicians (ACEP), and American Council on Pharmaceutical Education (ACPE).

ADVANCED LIFE SUPPORT REFRESHER COURSE (EMS 312) (32 hours)

The prerequisite for this course is current certification as an ALS provider.

Versions 1 and 2: The objective of this course is to provide the student with the knowledge and skills required to integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the sick or injured adult or pediatric patient in a prehospital setting while satisfying the re-registration requirements of the National Registry of Emergency Medical Technicians (NREMT) www.nremt.org.

Versions 1 and 2: Upon successful completion of this course, the student will be able to integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the sick or injured adult or pediatric patient in a prehospital setting.

Version 1: Major topics covered in the course are sudden death in the young athlete, pediatric advanced life support, drugs of abuse, the Federal Response Plan, emergency preparedness, burn management, extremity trauma, spinal trauma, head trauma, obstetrics, child abuse and neglect, domestic violence and pediatric emergencies.

Methods of instruction include interactive lectures, audio/visual materials, hands-on skills stations, small group scenario exercises, and written examinations. *Version 2:* Major topics covered in the course include fundamentals of trauma care, therapeutic hypothermia, pediatric trauma, altered mental status, febrile illness, GI emergencies, emergency childbirth and newborn stabilization, burn management, hand trauma and reattachment technology, cerebrovascular disease, ventricular assist devices, pediatric toxicology, polypharmacy, hypertension and peripheral vascular disease. Methods of instruction include interactive lectures, hands-on skills and simulation sessions, small group scenarios, and written examinations.

Successful completion of the course requires attendance for all eight modules, proficiency in the evaluation stations and a minimum score of 75% on the written examination. Students with current PEPP certification will receive a renewed PEPP card with successful completion of this course.

The continuing education hours are approved by the Maryland Institute for Emergency Medical Services Systems (MIEMSS) www.miemss.org and the Continuing Education Coordinating Board for Emergency Medical Services (CECBEMS) www.cecbems.org and are recognized by the National Registry of Emergency Medical Technicians (NREMT) www.nremt.org.

ACE/CREDIT recommendation for this course is *Version 1:* in the lower division baccalaureate/associate degree category or in the upper division baccalaureate degree category, 2 semester hours in Emergency Medical Services Administration, Community Health Care or Allied Health Care (10/04). *Version 2:* In the lower division baccalaureate/associate degree category, 2 semester hours in Emergency Medical Services Administration, Community Health Care or Allied Health Care (2/09).

ADVANCED MEDICAL LIFE SUPPORT (EMS 313) (16 hours)

The prerequisite for this course is current certification as an ALS provider or current enrollment in an ALS initial certification program. Course participants encompass all levels of EMS professionals, nurses, nurse practitioners, physician assistants, certified nurse anesthetists and physicians. This diversity enhances the team approach to patient care.

The objective of this course is to provide the student with the knowledge and skills required to successfully assess and manage a patient in a medical crisis. This course addresses the most common medical complaints and offers a pragmatic method of patient assessment and management utilizing scene size-up, history and physical examination to systematically rule-out and rule-in possibilities and probabilities in the medical patient.

Upon successful completion of this course, the student will be able to apply critical thinking skills to integrate pathophysiology with assessment and history findings to determine actual and potential patient problems, and apply appropriate emergency medical treatment.

Major topics covered in the course are assessment of the medical patient, airway management, ventilation and oxygen therapy, Hypoperfusion, dyspnea, chest pain, altered mental status, seizure and seizure disorders, acute abdominal pain, and gastrointestinal bleeding. Methods of instruction include interactive lecture, teaching, and evaluation stations. Methods of evaluation include lecture, discussion, case study, practical exam and a final examination.

Successful completion of the course requires attendance both days, proficiency in the four evaluation stations, and a minimum score of 70% on the written examination. Successful completion of the course provides certification in AMLS.

The continuing education hours are approved by the Maryland Institute for Emergency Medical Services Systems (MIEMSS) www.miemss.org, the Continuing Education Coordinating Board for Emergency Medical Services (CECBEMS) www.cecbems.org and are recognized by the National Registry of Emergency Medical Technicians (NREMT) www.nremt.org.

ACE/CREDIT recommendation for this course is in the vocational certificate or lower division baccalaureate/associate degree category, 1 semester hour in Emergency Medical Services Technology or Emergency Health Services (2/09).

AERIAL APPARATUS OPERATOR TRUCK COMPANY OPERATIONS (FIRE 114) (24 hours)

There are no prerequisites for this course. Students may miss one 3-hour session, excluding those listed as required attendance in the Student Manual Session Guide. The final written and practical examination must be completed with a score of 70% or better.

Versions 1 and 2: The objective of this course is to provide the knowledge and skills to operate a fire department aerial ladder truck and associated equipment.

Versions 1 and 2: Upon successful completion of this course, the student will be able to safely and effectively operate an aerial ladder at a fire or emergency scene. (NFPA 1002, *Standard for Fire Department Vehicle Driver/Operator.*)

Versions 1 and 2: Major topics covered in the course are truck company operations, tool requirements, terminology, techniques of spotting, stabilizing, working angles, loading, extreme operating conditions, raising and lowering, controls and valves, hydraulic systems, water tower operations, standpipe operations, ladders, safety rules, maintenance, and testing. Methods of instruction include lecture, discussion, classroom exercises, audio/visual material, practical exercises, graded practical exercises, and final examination.

ACE/CREDIT recommendation for this course is *Version 1:* in the vocational certificate category, 1 semester hour in Fire Service Technology (11/94) (12/99). *Version 2:* in the vocational certificate or lower division baccalaureate/associate degree category, 1 semester hour in Fire Science Technology (2/09).

AIRCRAFT RESCUE FIRE FIGHTER (FIRE 230) (40 hours)

The prerequisite for this course is MFRI Firefighter II, or MFSPQB, NPQS, or IFSAC certification as a Firefighter II. Students must attend all sessions. There is a final written exam for this course as well as a skills check off list. A score of 70% or better on the final examination is required to pass this course.

The objective of this course is to provide the student with an in-depth review of the skills attendant to the duties of the Airport Firefighter job performance requirements (JPRs) of the NFPA 1003, *Standard for Airport Fire Fighter Professional Qualifications.*

Upon successful completion of the class, the student will be able to apply skills and knowledge to safely respond at the scene of emergency incidents involving aircraft.

Major topics covered in this course are airport familiarization, aircraft familiarization, military aircraft, ARFF tactics and strategies, ARFF communications, ARFF agents and application methods, ARFF ladders, forcible entry, ventilation, salvage and overhaul, aircraft dangers, haz-mat, and PPE, ARFF IMS, planning and mass casualty. Methods of instruction include lecture, discussion, classroom exercises, and audio/visual material. Methods of evaluation include instructor evaluation, practical skills evaluation, and final written examination.

ACE/CREDIT recommendation for this course is in the vocational certificate category or in the lower division baccalaureate/associate degree category, 3 semester hours in Fire Science, Fire Technology, or Fire Service (2/09).

AIRCRAFT RESCUE FIREFIGHTING – DRIVER/OPERATOR (FIRE 232) (40 hours)

The prerequisite for this course is MFRI Aircraft Rescue Fire Fighter or MFSPQB, NPQS, or IFSAC certification as an Aircraft Rescue Firefighter. Students must attend all sessions. There is a final written examination for this course as well as a skills check-off list. A score of 70% or better on the final exam is required to pass this course.

The objective of this course is to provide the student with an in-depth review of the skills and duties of an Aircraft Rescue and Fire Fighting Driver/Operator as listed in the job performance requirements (JPRs) of the NFPA 1002, *Standard for Fire Apparatus Driver/Operator Professional Qualifications*.

Upon successful completion of the class, the student will be able to apply skills and knowledge to safely respond and operate ARFF apparatus at the scene of emergency incidents.

Major topics covered in the course are ARFF apparatus, fluid movement, fire pump operations, duties and responsibilities of the pump operator, response routes, vehicle safety, daily operator checks, airport signage, safe driving procedures, vehicle safety inspections, vehicle systems, and day and night-time operations. Methods of instruction include lecture, discussion, classroom exercises, and audio/visual material. Methods of evaluation include instructor evaluation, practical skills evaluation, and final written examination.

ACE/CREDIT recommendation for this course is in the vocational certificate or the lower division baccalaureate/associate degree category, 2 semester hours in Driver Operator (2/09).

ARSON DETECTION FOR FIRST RESPONDERS (FIRE 122) (13 hours)

There are no prerequisites for this course. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

Versions 1 and 2: The objective of this course is to provide a clear definition of the role of the initial responder organizations; to provide essential knowledge to enable them to recognize the potential of an intentionally-set fire; to preserve evidence; and to properly report the information to appropriate officials.

Versions 1 and 2: Upon successful completion of this course, the student will be able to recognize the indicators of an intentionally-set fire; how to preserve evidence; and report information to an appropriate official.

Versions 1 and 2: Major topics covered in the course are fire behavior, critical observations of the first responder, fire cause, scene security and evidence preservation, legal considerations, and reporting of findings. Methods of instruction include lecture, discussion, classroom exercises and case studies.

ACE/CREDIT recommendation for this course is *Version 1:* in the vocational certificate category or lower division baccalaureate/associate degree category, 1 semester hour in Fire Science (7/97). *Version 2:* in the vocational certificate or lower division baccalaureate/associate degree category, 1 semester hour in Fire Science or Fire Investigations (2/09).

BASIC DISASTER LIFE SUPPORT (EMS 226) (8 hours)

The prerequisite for this course is current certification or licensure as an emergency medical services provider, health care professional, public health professional or law enforcement officer.

The objective of this course is to provide health care providers with the knowledge and skills required to recognize and manage "all-hazards" threats (nuclear, biological, chemical, explosive and natural disasters).

BDLS® is the didactic component of the national disaster life support training. The BDLS® curriculum is developed with an all-hazards approach (recognition and management) to disaster response. Individual chapters remain

cohesive by the incorporation of a unifying algorithm called the DISASTER Paradigm™. The curricula includes: overview and disaster paradigm; natural and manmade disasters; traumatic and explosive events; nuclear and radiological weapon attacks; biological events; chemical events; the public health system and the psychosocial aspects of disasters.

Certification in BDLS® requires full course completion and achievement of at least 70% on the competency exam. To maintain these credentials, renewal training is required every three years.

The continuing education hours are approved by the Maryland Institute for Emergency Medical Services Systems (MIEMSS) www.miemss.org and the Continuing Education Coordinating Board for Emergency Medical Services (CECBEMS) www.cecbems.org and are recognized by the National Registry of Emergency Medical Technicians (NREMT) www.nremt.org. Continuing education for nurses, physicians and other allied health professionals is also available.

BASIC LIFE SUPPORT AND HAZARDOUS MATERIALS RESPONSE (EMS 103) (16 hours)

There are no prerequisites for this course. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

The objective of this course is to provide an overview of critical concerns for emergency medical responders at hazardous materials incidents, including toxicological aspects associated with hazardous material incident response.

Upon successful completion of this course, the student will be able to successfully identify potential problems and safety concerns (responders and victims) from videotaped incidents; define hazardous materials and indications of their presence including respiratory, dermal, and systemic toxicology and ingestion injuries; describe decontamination processes and equipment; describe level of protective clothing and protective equipment and its use; define standard of care; understand federal laws relating to hazardous material response; and identify the process and techniques for assessing responder's condition.

Major topics covered in the course are safety issues for EMS-hazardous materials response teams, managing contaminated victims, decontaminating and treatment procedures at basic life support level, transportation and receiving facilities, and compliance/understanding of federal regulations regarding hazardous materials response. Methods of instruction include lecture, discussion, classroom exercises, audio/visual material, graded participation and projects, and a final examination.

ACE/CREDIT recommendation for this course is in the lower division baccalaureate/associate degree category or in the upper division baccalaureate degree category, 1 semester hour in Fire Science, Public Administration, Emergency Medical Services, or Community Health (2/95) (8/98) (9/03).

DECISION MAKING FOR INITIAL COMPANY OPERATIONS (FIRE 137) (14 hours)

There are no prerequisites for this course. Students must attend all sessions.

The objective of this course is to develop the decision-making skills needed by Company Officers to accomplish assigned tactics at structure fires.

Upon successful completion of this course, the student will be able to make good management decisions that have a favorable impact on the eventual outcome of an incident.

Major topics covered in the course are the NIMS, fireground management, fireground decision-making, size-up, building construction types, and burn time considerations. Methods of instruction include lecture, discussion, audio/visual material, individual activities, small group activities, demonstration, and simulations.

DOMESTIC PREPAREDNESS TRAINING - INCIDENT COMMAND COURSE (MGMT 139) (6 hours)

There are no prerequisites for this course. Students must attend all sessions.

The objective of this course is to identify and describe the differences between a typical hazmat incident and a nuclear, biological, or chemical incident (NBC), the importance of incident preparation, the decision and policies required by an NBC incident, and the role of the federal government in an NBC terrorist incident.

Upon successful completion of this course, the student will be able to describe the difference between what might be called a "typical" hazmat incident and an incident involving NBC agents, be able to understand the importance of adequate preparation for an NBC incident, make proper decisions and develop policies required by an NBC incident, understand the role of the federal government in any NBC incident, and be able to test processes by conducting a terrorism incident exercise.

Major topics covered in the course include the challenges and consequences of management of an NBC incident; tactical considerations; the federal response; capabilities of federal, state, and local agencies in an NBC incident; quick response capabilities; procedures for requesting assistance; and how to access and use various resources. Methods of instruction include lecture, discussion, class activities, use of varied audio/visual materials, and a practical exercise.

DOMESTIC PREPAREDNESS TRAINING RESPONDER - AWARENESS COURSE (HM 120) (3 hours)

There are no prerequisites for this course. Students must attend all sessions.

The objective of this course is to recognize the signs and symptoms of nuclear, biological, or chemical (NBC) poisoning and describe the proper initial response actions for emergency responders.

Upon successful completion of this course, the student will be able to review the recent history of NBC weapons use, recall the signs and symptoms of NBC poisoning and the first indicators of an attack, understand and recognize the potential types of dissemination devices in order to recognize the potential threat situation, and describe initial response actions to a real or suspected NBC incident.

Major topics covered in the course include an awareness of the NBC terrorist threat, reasons for using NBC, sources and hazards, likely targets, self-protection, indicators, NBC agent dissemination devices, appropriate initial response actions, and application of a correct response. Methods of instruction include lecture, small group activities, use of audio/visual materials, and classroom activity.

DOMESTIC PREPAREDNESS TRAINING RESPONDER - OPERATIONS COURSE (HM 220) (3 hours)

The prerequisite for this course is Domestic Preparedness Training Program - Awareness Course.

The objective of this course is to identify correct operations level defensive response actions in the event of a nuclear, biological, or chemical incident (NBC), correct protective equipment, relevant detection and identification equipment, and to understand emergency decontamination procedures.

Upon successful completion of this course, the student will be able to correctly identify the correct operations level responder actions, utilize a quick method to predict the boundaries of the downwind vapor hazard associated with the release of any agents, utilize the proper protective equipment and understand the limitations of various self-protection methods, and know what types of identification and detection equipment are available.

Major topics covered in the course include appropriate responder actions, conducting a downwind hazard analysis, limitation of the prediction, levels of personal protection, detection and identification equipment and its capabili-

ties, emergency decontamination, levels of decontamination, and decontamination delta presented by various agents. Methods of instruction include lecture, demonstration, classroom activities, the use of varied audio/visual materials, and a class practical exercise.

DOMESTIC PREPAREDNESS TRAINING TECHNICIAN - EMERGENCY MEDICAL SERVICES COURSE (EMS 212) (9 hours)

The prerequisite for this course is Domestic Preparedness Training Responder Operations Course. Students must attend all sessions.

The objective of this course is to describe the unique challenges of nuclear, biological, or chemical (NBC) terrorism for EMS personnel.

Upon successful completion of this course, the student will be able to recognize the NBC threat; know the differences in NBC terrorism; understand the properties and characteristics of NBC agents; know the properties of NBC weapons; utilize proper emergency response actions; and know the characteristics of the incident site.

Major topics covered in this course include EMS management of NBC casualties, types of radiological hazards, acute health effects of radiation contamination and exposure, signs and symptoms of exposure to biological agents, secondary contamination, symptoms of chemical exposure, cross-contamination, proper protective equipment, bomb blasts, crush injuries, and the management of a mixed NBC incident. Methods of instruction include lecture and discussion, the use of varied audio/visual materials, class activities, and a student practical exercise.

DOMESTIC PREPAREDNESS TRAINING TECHNICIAN - HAZMAT COURSE (HM 222) (12 hours)

The prerequisite for this course is Domestic Preparedness Training Responder. Students must attend all sessions.

The objective of this course is to train responders to initiate the correct technician level response actions in the event of a nuclear, biological, or chemical incident (NBC).

Upon completion of this course, the student will be able to use proper procedures to detect and identify nuclear, biological, or chemical agents (NBC); utilize correct decontamination procedures; select and utilize the proper personal protective equipment; and prepare simplified downwind hazard prediction.

Major topics covered in the course include the nuclear, biological, or chemical (NBC) terrorism threat, types of biological agents; radiological materials; chemical agents; dissemination devices; detection and identification equipment; personal protective equipment; decontamination procedures; downwind hazard prediction; and responder actions. Methods of instruction include lecture, utilization of videos and other audio/visual materials, discussion, classroom activities, and a practical exercise.

EMERGENCY MEDICAL SERVICES OFFICER I (MGMT 203) (48 hours)

The prerequisite for this course is EMTA, EMTB or higher level of field provider. A minimum of 3 years' experience as an EMTA, EMTB or higher field provider is strongly suggested. Students must attend all class sessions. Students must successfully complete the Preceptorship Program prior to session 16. Many sessions in this course have required homework assignments. Students must successfully complete the mid-term and final examination with a score of 70% or better.

Versions 1 and 2: The objective of this course is to provide students with entry-level training in company/departmental emergency medical services operations and administration at the first-line supervisory level.

Versions 1 and 2: Upon successful completion of this course, the student will be able to effectively manage human resources, community/public relations, and EMS company/departmental organization and administration, including budgets, reports, incident pre-planning, public EMS education, safety, and emergency services delivery.

Versions 1 and 2: Major topics covered in this course are the role of the EMS officer facing compliance and accountability issues of the 21st century, recognizing and managing cultural diversity, safety/wellness, TQM, interfacing with the community and media at large, functional leadership, supervising EMS company/departmental operations, effective communications, introduction to EMS operations, incident management system(s) and managing multiple casualty incidents. Methods of instruction include lecture, discussions, classroom exercises, case studies, audio/visual material, preceptorship program, observations, tests, examinations and completion of required skills.

ACE/CREDIT recommendation for this course is *Version 1:* in the lower division baccalaureate/associate or upper division baccalaureate degree category, 3 semester hours in Emergency Medical Services Administration, Management, Fire Science, Emergency Management, or Public Administration (9/96). *Version 2:* in the vocational certificate or lower division baccalaureate/associate degree category, 3 semester hours in Emergency Medical Services Administration, Management, Fire Science, Emergency Management, or Public Administration (12/99) (10/04).

EMERGENCY MEDICAL TECHNICIAN BASIC (EMS 102) (131 hours)

There are no prerequisites for this course. This is a 131-hour course comprised of 116 hours in classroom, 10 hours internship and 5 hours of testing. Students may miss three 3-hour sessions, excluding those listed as required attendance in the Student Manual Session Guide. MFRI will deliver 116 hours of the MIEMSS Certified EMTB course in seven modules. Each module contains a written and a practical examination. Each written module examination must be passed with a minimum score of 70%. The practical evaluation must be passed according to a checklist based on U.S. DOT requirements. A limited re-test option based on the testing policy is permitted in each module for the written and/or practical examination. A student may fail and re-test any TWO module written examinations and any TWO module skills examinations, but a third fail in either OR a fail in any re-test requires that the student drop the course. The student must complete the 10 hours of internship in the local department prior to session 39 to be eligible to take the MIEMSS written and practical examinations. If the internship is not complete, the student will receive an incomplete evaluation and will not be permitted to test until the internship is complete. At the conclusion of the MFRI portion of the program a written and practical certification examination will be administered by MIEMSS.

Versions 1 and 2: The objective of this course is to provide students with the necessary knowledge and skills to perform emergency medical care in a pre-hospital environment at the basic life support level.

Versions 1 and 2: Upon successful completion of this course, the student will be able to recognize, assess, and manage medical and trauma signs and symptoms in patients in emergency situations; determine and use appropriate equipment for patient management and care; communicate and work with other emergency service personnel in the care, transport, and transfer of patients; and maintain patient and department records.

Versions 1 and 2: Major topics covered in the course include legal aspects of emergency care, infection control, patient assessment, respiratory system, oxygen adjuncts and delivery, CPR, AED, bleeding control and management of soft tissue injuries, musculoskeletal injuries and management, spinal immobilization, pediatric and obstetric emergencies, crisis intervention, multiple casualty and triage management, ambulance operations, and EMS systems. Methods of instruction include lecture, discussion, classroom exercises, case studies, audio/visual material, skills practical scenarios, and modular written and practical exams.

ACE/CREDIT recommendation for this course is *Version 1:* in the vocational certificate or lower division baccalaureate/associate degree category, 6 semester hours in Emergency Medical Technology, Fire Science or Public Administration (9/96). *Version 2:* in the vocational certificate or lower division baccalaureate/associate

degree category, 6 semester hours in Emergency Medical Technology, Emergency Health Services, Fire Science or Public Administration (2/09).

EMERGENCY MEDICAL TECHNICIAN REFRESHER (EMS 203) (24 hours)

The prerequisite for this course is current EMTB certification. Students must attend all class sessions. Students must successfully complete a practical skills check list and a written protocol examination with a score of 70% or better.

The objective of this course is to prepare a certified Emergency Medical Technician Basic (EMTB) to demonstrate through an examination process the proficiency of his/her knowledge and application of emergency medical basic skills. This course provides the 24 hours of continuing education requirement for Emergency Medical Technician Basic certification.

Upon successful completion of this course, the student will be able to perform all the roles and responsibilities of the EMTB required for the emergency care of medical and trauma patients, including assessing the patient, managing the airway, recognizing signs and symptoms, providing care for adults and children with medical conditions and trauma injuries, and for conditions of emergency childbirth.

Major topics covered in the course are Maryland medical protocols for EMS providers, preparatory, airway, patient assessment, medical and behavioral situations, trauma situations, and emergency obstetrics: childbirth and infants and children. Methods of instruction include student interactive and participatory activities including instructor review, discussions, demonstration of skills, supervision and coaching of student skills practice, observation of student skills an objective checklist with a 100 percent cut point required to pass. A final written examination prepared by the Maryland Institute for Emergency Medical Systems (MIEMSS) on medical protocols for EMS providers is also required to be recertified.

ACE/CREDIT recommendation for this course is in the lower division baccalaureate degree category, 2 semester hours in Emergency Medical Care or Community Health (12/99) (10/04). NOTE: Credit should be awarded one time only; course must be taken periodically for recertification.

EMERGENCY MEDICAL TECHNICIAN SKILLS (EMS 202) (12 hours)

The prerequisite for this course is current EMTB certification. Students must attend all class sessions. Students must successfully complete a practical skills check list and a written protocol examination with a score of 70% or better. In order to complete the requirements for recertification as an EMTB the student must take an additional 12 hours of required continuing education, which may be acquired through seminars or other continuing education methods approved by MIEMSS.

The objective of this course is to provide the necessary review and practice of skill to fulfill the skills requirements toward EMTB recertification.

Upon successful completion of this course, the student will be able to assess, recognize, and manage medical and trauma signs and symptoms in patients in emergency situations and to determine and use appropriate equipment for patient management and care.

Major topics covered in the course include infection control, patient assessment, oxygen adjuncts and delivery, CPR, AED, bleeding control and management of soft tissue injuries, musculo-skeletal injuries, and spinal immobilization. Methods of instruction include review by discussion, classroom exercises, audio/visual material, protocol testing, and practical skills check off.

EMERGENCY RESPONSE TO A CRIMINAL/TERRORIST INCIDENT (HM 123) (6 hours)

There are no prerequisites for this course. Students must attend all sessions.

The objective of this course is to increase local responders' ability to preserve evidence while performing rescue and fire suppression activities and to foster a cooperative working relationship among agencies.

Upon completion of the course, the student will be able to recognize when incidents may also be crime scenes; identify potential criminal activities; perform safe operations; stabilize crime scenes; preserve evidence; and identify appropriate and inappropriate actions and the roles, needs, and responsibilities of law enforcement and non-law enforcement responders at a criminal site.

Major topics covered in this course are the importance of treating incident sites as potential crime scenes; need for good working relationships; awareness of the needs, roles, and responsibilities of law enforcement and non-law enforcement responders; unified command with multiple agencies; and the role of the federal government in a terrorist situation. Methods of instruction include lecture, discussion, student exercise, and examination.

EMERGENCY RESPONSE TO TERRORISM: BASIC CONCEPTS (HM 121) (16 hours)

There are no prerequisites for this course. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

Versions 1 and 2: The objective of this course is to provide training for first responders to acts of terrorism. This is an introductory course providing awareness of the growing problem and safety considerations for first responders at terrorism responses.

Versions 1 and 2: Upon successful completion of this course, the student will be able to recognize the potential dangers of the first responder to acts of terrorism; demonstrate basic understanding of circumstances that indicate an act of terrorism; define self-protective measures; define scene control principles; recommend basic tactics and responses to acts of terrorism; and recognize the elements of command and control to acts of terrorism.

Versions 1 and 2: Major topics covered in the course are understanding and recognizing terrorism, implementing self-protective measures, scene control, tactics and consideration, and incident command. Methods of instruction include lecture, discussion, individual group activities, scenarios, case studies, classroom exercises, audio/visual material, and final examination.

ACE/CREDIT recommendation for this course is *Version 1:* in the vocational certificate or lower division baccalaureate/associate degree category, 1 semester hour in AAS-Fire Science, or Emergency Medical Services Technologies (8/98). *Version 2:* in the vocational certificate or lower division baccalaureate/associate degree category, 1 semester hour in AAS-Fire Science, or Emergency Medical Services, Criminal Justice, Emergency Management, or Public Health (9/03).

EMERGENCY RESPONSE TO TERRORISM: INCIDENT MANAGEMENT (HM 223) (48 HOURS)

The prerequisite for this course is Emergency Response to Terrorism: Basic Concepts. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

The objective of this course is to provide incident commanders with the necessary skills for recognizing a terrorist incident, preserving evidence, planning and intelligence, federal response and unified command, hazardous materials and emergency medical services response and related command issues.

Upon successful completion of this course, the student will be able to apply skills and knowledge that will assist him in preparing his own community for emergency response to a terrorist action.

Major topics covered in the course are characteristics of terrorism and weapons; recognizing and identifying a terrorist incident; hazmat and EMS response; operational considerations; command issues; intelligence and planning; federal response; evidence issues; recovery and termination; and perspectives on the future of terrorism.

ACE/CREDIT recommendation for this course is in the lower division baccalaureate/associate degree or upper division baccalaureate degree category, 3 semester hours in Criminal Justice, Fire Science, Political Science, Public Administration, Emergency Management, or Public Health (9/03).

EMERGENCY RESPONSE TO TERRORISM: STRATEGIC CONSIDERATIONS FOR COMMAND OFFICERS (MGMT 142) (16 hours)

The prerequisite for this course is Emergency Response to Terrorism: Basic Concepts. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

The objective of this course is to increase a command officer's ability to anticipate potential terrorist incident targets and to respond effectively to a terrorist incident through coordinated planning, training, and exercising; to increase a command officer's skills level to work in a team setting; to address terrorist incidents; and to increase an emergency response department's ability to integrate local, state and federal resources to address a terrorist incident.

Upon successful completion of this course, the student will be able to identify the fundamental nature and attributes of the terrorist's motivation and methods of achieving their objectives, identify and use appropriate recognition and identification tools needed by initial arriving command officers at terrorist incidents, and be able to explain the importance of planning and intelligence gathering for terrorist incidents. Students will also be able to explain response strategies for terrorist incidents, apply the components of the Incident Command System (ICS) and integrate them into an overall management plan for terrorist events, understand the importance of incident documentation and evidence preservation, and identify the components of the Federal Response Plan (FRP) and explain methods of its activation.

Major topics covered in this course are defining terrorism and weapons of mass destruction, characteristics of terrorist incidents, planning and intelligence gathering, factors influencing strategic decisions, integrated response to terrorist events, incident documentation and evidence preservation, and the federal response. Methods of instruction include lecture, audio/visual material, computer-assisted instruction, learner presentations/reports, tests, quizzes, projects, and a final examination.

ACE/CREDIT recommendation for this course is in the vocational certificate or lower division baccalaureate/associate degree category, 1 semester hour in Fire Science, Emergency Medical Services, or Hazardous Materials (9/03).

EMERGENCY RESPONSE TO TERRORISM: TACTICAL CONSIDERATIONS: COMPANY OFFICER (MGMT 143) (12 hours)

The prerequisite for this course is Emergency Response to Terrorism: Basic Concepts. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

The objective of this course is to supply the responding officer with the strategic and tactical knowledge and skills to recognize a hostile act, minimize losses, communicate the information necessary to other arriving units, establish command, manage the incident, and direct operations until relieved by a senior ranking officer.

Upon successful completion of this course, the student will be able to explain terrorist event response operational concepts and planning criteria; describe the common considerations for response actions for a terrorist attack; identify and evaluate information and explain how it relates to establishing protection measures at a suspected terrorist event; explain how a specific response strategy for a given scenario and proposed tactical options will increase responder survivability and response effectiveness; and list and explain incident command transition consideration.

Major topics covered in the course are common considerations for response actions, recognition and survival, terrorism response strategies and tactical options, and transition of command. Methods of instruction include lecture, discussion, small group activity, and a final examination.

ACE/CREDIT recommendation for this course is in the vocational certificate or the lower division baccalaureate/associate degree category, 1 semester hour in Emergency Medical Services or Fire Science (9/03).

EMERGENCY RESPONSE TO TERRORISM: TACTICAL CONSIDERATIONS: EMERGENCY MEDICAL SERVICES (EMS 213) (16 hours)

The prerequisites for this course are Emergency Response to Terrorism: Basic Concepts and Emergency Medical Technician Basic or higher certification. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

This course is designed for first-on-the-scene responding EMS personnel responsible for caring for victims of terrorist incidents. The students will be trained in security considerations, identifying signs of terrorism, anticipating unusual response circumstances, assessing information, and initiating self-protection actions. Students will learn to apply their knowledge about responding to a terrorist event, providing patient care, identifying and preserving evidence, managing site safety, documenting the event, and debriefing personnel.

Students will be able to distinguish strategies and tactics, identify strategic goals regarding terrorism response, define terrorism and several categories of terrorist targets, list cues for recognizing a terrorist event, and identify potential field medical resource needs. During a B-NICE incident students will be able to develop a safety plan addressing the potential for secondary contamination and patient treatment plan involving casualties, personal protective equipment, and decontamination and monitoring considerations for personnel operating in the multi-casualty branch. In a simulated terrorist event, the student will be able to identify security concerns regarding responses, on-site operations, and standard response equipment and specialized detection equipment along with its application.

Major topics include terrorism concepts, patient care, decontamination, and responder safety. Methods of evaluation include lectures, discussions, group activities, and a final exam.

ACE/CREDIT recommendation for this course is in the vocational certificate or the lower division baccalaureate/associate degree category, 1 semester hour in Emergency Medical Services or Fire Science (9/03).

EMERGENCY RESPONSE TO TERRORISM: TACTICAL CONSIDERATIONS: HAZARDOUS MATERIALS (HM 224) (16 hours)

The prerequisites for this course are Emergency Response to Terrorism: Basic Concepts and Hazardous Materials Technician. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

The objective of this course is to increase the emergency provider's skill level to work in a team setting for a safe and effective response to terrorist events that involve hazardous materials.

Upon successful completion of this course, the student will be able to identify and apply basic security tactics; estimate risk and determine appropriate response precautions; identify equipment likely to be useful in a response to terrorist events; select appropriate personnel protective equipment; identify appropriate product control methods; identify decontamination; plan components for decontamination of victims and equipment during a terrorist incident involving hazardous materials.

Major topics covered in the course are security, chemical and physical properties, monitoring, protection, product control and decontamination. Methods of instruction include lecture, discussion, classroom exercise, audio/visual material, and a final examination.

ACE/CREDIT recommendation for this course is in the lower division baccalaureate/associate or upper division degree category, 1 semester hour in Emergency Medical Services, Environmental Studies or Fire Science (9/03).

EMERGENCY SERVICES STRUCTURAL COLLAPSE - Basic (RES 207) (44 hours)

The prerequisites for this course are Firefighter I or Rescue Technician. Students must attend all course sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course. It is the host company's responsibility to provide all necessary training equipment and resources for this course.

The objective of this course is to provide emergency responders with an introduction to the tactical considerations and techniques for rescue in collapsed structures and similar situations.

Upon successful completion of this course, the student will understand the recommendations of the Federal Emergency Management Agency (FEMA) for the operations of technical rescue teams.

Major topics covered in the course include FEMA responsibilities, OSHA compliance, incident command systems, confined space search and rescue, emergency medical services, hazardous materials, specialized equipment and tools, logistical support, and state-of-the-art techniques for search and rescue. Methods of instruction include lecture, discussion, classroom activities, use of audio/visual materials, and an 8-hour simulated building collapse exercise with class members functioning as the technical rescue team with local support.

EMERGENCY SERVICES STRUCTURAL COLLAPSE - Advanced (RES 208) (44 hours)

The prerequisite for the course is the completion of Emergency Services Structural Collapse Basic (RES 207). There is a final written exam. A score of 70 % or better is required to pass the course.

The objective of this course is to expand on the operations portion of the Structural Collapse program and provide the emergency responder with the practical/tactical skills for rescue in collapsed structures and similar situations.

Upon successful completion of this course, the student will understand the recommendations of the Federal Emergency Management Agency (FEMA) for the operation of technical rescue teams.

Major topics in this course include breaching and breaking, lifting and moving, the "O" course (a team-building effort), large-scale shoring and crane operations and a final scenario in the rubble pile. Methods of instruction include classroom lecture and discussion and practical exercises (about 90% of the program).

The combination of RES 207 and RES 208 will be the equivalent of completing the 84-hour Rescue Technician Structural Collapse course RES 209.

EMERGENCY VEHICLE OPERATOR (FIRE 130) (39 hours)

The prerequisites for this course are a current valid Maryland Driver's License and a letter from the Chief of the department giving you permission to drive the department's apparatus in the course. Students may miss one 3-hour

session, excluding those listed as required attendance in the Student Manual Session Guide. Successful completion of the course requires a score of 70% or better on the written examination and completion of the practical evolutions according to an established checklist.

The objective of this course is to provide students with information on sensible and safe emergency vehicle driving procedures and collision avoidance and to develop basic skills in the operation of fire and rescue service apparatus.

Upon successful completion of this course, the student will be able to describe the major concepts of emergency vehicle driving including safety, legal issues, communications, vehicle inspection and preparation, physical forces affecting driving and the operation of an emergency vehicle; and demonstrate basic competency as a driver of an emergency vehicle.

Major topics covered in the course are safe driving and collision avoidance, Maryland motor vehicle statutes, route selection and communications, vehicle inspection and driving preparation, physical forces affecting driving, lights and sirens, basic control tasks, urban driving, negotiating intersections and turnarounds, following and passing vehicles, high-speed driving, dealing with adverse conditions and contingencies, and emergency parking. Methods of instruction include lecture, discussion, classroom exercises, audio/visual material, instructor evaluation, completion of exercises, homework, final written examination, and skills performance check off.

ACE/CREDIT recommendation for the course is in the lower division baccalaureate/associate degree category, 2 semester hours in Fire Science Technology (12/99) (10/04).

EMERGENCY VEHICLE OPERATOR REFRESHER (FIRE 131) (12 hours)

The prerequisites for this course are a current valid Maryland Driver's License and a letter from the Chief of the department giving you permission to drive the department's apparatus in the course. Students must attend all sessions. Successful completion of the course requires the completion of the practical evolutions according to an established checklist.

The objective of this course is to provide the necessary knowledge and skills to enhance the ability of current drivers of emergency services vehicles.

Upon successful completion of this course, the student will be able to perform vehicle readiness inspections, discuss driver qualifications, vehicle dynamics, basic vehicle control, and a variety of driving tasks.

Major topics covered in the course are laws and liabilities, driver's role and responsibilities, driver qualifications, driver readiness, operating space, major vehicle components, inspection and maintenance, physical forces of motion, vehicle dynamics and basic control tasks, road characteristics and vehicle maneuvers, route planning and selection, driving range rules, vehicle inspections by students, and range activities at slow and moderate speeds. Methods of instruction include lecture, discussion, classroom exercises, audio/visual material, practical exercises, and graded practical exercises.

ENGINE COMPANY FIREGROUND OPERATIONS (FIRE 207) (24 hours)

The prerequisites for this course are Basic Fire, Essentials of Firefighting IV, MFRI Firefighter I or equivalent. Students may miss one 3-hour session, excluding those listed as required attendance in the Student Manual Session Guide. Students must successfully complete the final examination with a score of 70% or better.

The objective of this course is to provide the student with the fundamental principles of engine company operations and how they can be integrated during fireground operations.

Upon successful completion of this course, the student will be able to describe the functions and responsibilities of the engine company and demonstrate the use of nozzles, a hose, hydrants, foam, and testing equipment during practical evolutions.

Major topics covered in the course are functions and responsibilities of the engine company, construction and operation of nozzles, positioning and utilizing the engine, utilizing hydrants, pitot gauge and foam, size-up, emergency response considerations, initial fireground operation, and selecting and placing attack and supply lines. Methods of instruction include lecture, discussion, audio/visual material, practical skills exercise, final written examination, and required assignments.

ACE/CREDIT recommendation for this course is in the vocational certificate category, 1 semester hour in Fire Science Technology (11/94) (12/99) (10/04).

FIRE DEPARTMENT SAFETY OFFICER (FIRE 110) (30 hours)

There are no prerequisites for this course. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

The objective of this course is to provide the student with the knowledge and skills to examine the health and safety officer's role in identifying, evaluating, and implementing policies and procedures that affect the safety and health of emergency responders.

Upon successful completion of this course, the student will be able to identify and evaluate hazardous or unsafe conditions and implement policies and procedures to address the safety and health of emergency responders. (NFPA 1521, *Standard for Fire Department Safety Officer*).

Major topics covered in the course are the evolution of the fire department safety officer, qualifications and authority; risk management plans and planning responsibilities; safety officer responsibilities; critical incident stress management; facility safety responsibilities; equipment safety and apparatus maintenance; training delivery; compliance assessment components; incident scene safety; injury and fatality factors and reducing injuries and fatalities. Methods of instruction include lecture, discussion, audio/visual material, classroom exercises, including completion of a compliance assessment, final written examination and final practical examination.

ACE/CREDIT recommendation for this course is in the vocational certificate category or in the lower division baccalaureate/associate degree category, 2 semester hours in Fire Science, Fire Technology, Fire Science Management, or Occupational Health and Safety (10/04).

FIRE INSPECTOR I (MGMT 204) (30 hours)

There are no prerequisites for this course. Students must attend all sessions. A score of 70% on the written midterm and final written and practical examination is required to pass this course.

Versions 1 and 2: The objective of this course is to provide the student with an in-depth review of the skills attendant to the duties of the Fire Inspector I job performance requirements (JPRs) of NFPA 1031, *Standard for Fire Professional Qualifications for Fire Inspector and Plan Examiner*.

Versions 1 and 2: Upon successful completion of this course, the student will be able to prepare reports on fire safety issues using the proper codes and standards; conduct research of the various codes to address deficiencies noted during a site visit; develop a checklist to complete fire safety inspections; and give a legal deposition given the findings of an inspection, plan review, or complaint.

Version 1: Major topics covered in the course include computing the occupant load of a multi-use building; identifying the occupancy classification of mixed-used buildings; classifying the type of construction in new buildings; analyzing the egress elements of a building or portion of a building; evaluating hazardous conditions; evaluating

emergency planning and preparedness procedures; verifying fire flows for a site; and verifying code compliance. Methods of instruction include lecture, discussion, classroom exercises, audio/visual material, instructor evaluation, and completion of exercises, homework, and final written examination. *Version 2:* Major topics covered in the course include an introduction to fire prevention; the code process; the inspection process; life safety codes; fire protection systems; interior finish, trim, and decorations; computing the occupant load of a multi-use building; identifying the occupancy classification of mixed-use buildings; analyzing the egress elements of a building or portion of a building; evaluating hazardous conditions; and verifying code compliance. Methods of instruction include lecture, discussion, classroom exercises, audio/visual material, instructor evaluation, and completion of exercises, homework, final written examination, and a practical examination.

ACE/CREDIT Recommendation: *Version 1:* In the upper division baccalaureate degree category, 3 semester hours in Fire Science, Fire Technology, or Occupational Health and Safety (12/99); *Version 2:* In the upper division baccalaureate degree category, 2 semester hours in Fire Science, Fire Technology, or Occupational Health and Safety (12/99) (10/04).

FIRE INSPECTOR II (MGMT 205) (30 hours)

The prerequisites for this course are MFRI Fire Inspector I, or MFSPQB, NPQS, or IFSAC Fire Inspector I certification. Students must attend all sessions. Every session includes an exercise that is used to evaluate students' skills. Students must complete all class and homework assignments. There is a final written and practical examination for this course as well as a skills check off. A score of 70% or better on the final written and practical exams are required to pass.

Versions 1 and 2: To provide the student with an in-depth review of the skills attendant to the duties of the Fire Inspector II job performance requirements (JPRs) of NFPA 1031, *Standard for Fire Professional Qualifications for Fire Inspector and Plan Examiner*.

Versions 1 and 2: Upon successful completion of this course, the student will be able to prepare reports on fire safety issues using the proper codes and standards; conduct research of the various codes to address deficiencies noted during a site visit; develop a checklist to complete fire safety inspections; and give a legal deposition given the findings of an inspection, plan review, or complaint.

Version 1: Major topics covered in the course are processing plan review applications; testifying at legal proceedings; recommending modifications to codes and standards; computing the occupant load of a multi-use building; evaluating hazardous conditions; evaluating emergency planning and preparedness; verifying fire flows; verifying code compliance; evaluating code compliance; determining the fire growth potential; and field verifying the installation of a fire protection system. Methods of instruction include lecture, discussion, classroom exercises, audio/visual material, instructor evaluation, and completion of exercises, homework, and a final written examination. *Version 2:* Major topics covered in the course include residential code violations and strategies for correction; identification of construction types and performance features; use group classifications and building characteristics by classification; mixed-use buildings; composition of the *International Building Code* and *Life Safety Code*; allowable height and area; fire flow, conducting flow tests and calculating fire flow; *Life Safety Code* and requirements for means of egress; evacuation requirements, evacuation plan provisions and strategies for evacuation; plans review and permit process; characteristics of portable LPG cylinders; characteristics of hazardous materials; high-hazard classification; NFPA 704 system and "H" use group buildings; plans review requirements; and plans review hearings. Methods of instruction include lecture, discussion, classroom exercises, audio/visual material, instructor evaluation, and completion of exercises, final written examination, and a practical examination.

ACE/Credit recommendation for this course is *Version 1:* In the upper division baccalaureate degree category, 3 semester hours in Fire Science, Fire Technology, or Occupational Health and Safety (12/99); *Version 2:* In the upper division baccalaureate degree category, 2 semester hours in Fire Science, Fire Technology, or Occupational Health and Safety (10/04).

FIRE INSPECTOR III (MGMT 302) (30 hours)

The prerequisites for this course are MFRI Fire Inspector II, or MFSPQB, NPQS, or IFSAC Fire Inspector II certification. Students must attend all sessions. Every session includes an exercise that is used to evaluate students' skills. Students must complete all class and homework assignments.

Versions 1 and 2: The objective of this course is to provide the participant with an in-depth view of the skills attendant to the duties of the Fire Inspector III job performance requirements (JPRs) of the NFPA 1031, *Standard for Fire Professional Qualifications for Fire Inspector and Plans Examiner*.

Versions 1 and 2: Upon successful completion of this course, the student will be able to apply the skills and knowledge to conduct all types of fire inspections, conduct plans reviews and resolve complex code related issues.

Version 1: Major topics covered in this course are fire department emergency vehicle access requirements; model code requirements, building codes, and fire codes; building use and occupancy; fire growth potential, interior finish, and fire load; means of egress; inspection reports, appeals and code enforcement; budget process and type; fire prevention funding and analysis of fire prevention programs. Methods of instruction include lecture, discussion, classroom exercises, case study, audio/visual material, PowerPoint, instructor evaluation, and a final examination. *Version 2:* Major topics covered in this course are policies and procedures development, vision and mission statements, core values, code adoption and modification, budget format, function, and process, building code modification process, plans review organizations, process, and purpose, components of effective fire prevention and the fire inspectors role, and alternative design processes. Methods of instruction include lecture, discussion, classroom exercises, case study, audio/visual material, instructor evaluation and a group project.

ACE/CREDIT recommendation for this course is *Version 1:* in the upper division baccalaureate category, 3 semester hours in Fire Science, Fire Technology, or Occupational Health and Safety (9/03). *Version 2:* In the upper division baccalaureate degree category, 2 semester hours in Fire Science, Fire Service, or Fire Technology (2/09).

FIRE OFFICER I (MGMT 201) (63 hours)

The prerequisites for this course are MFRI Firefighter II, or MFSPQB, NPQS, or IFSAC Firefighter II certification. It is suggested a minimum of 1 year of experience as a Firefighter II be completed before enrolling in this program. Students must attend all sessions. Students must successfully complete the Preceptorship Program prior to session 20. Each session in this program has required homework. A score of 70% on the written midterm and final written and practical exams are required to pass.

Versions 1 and 2: The objective of this course is to provide entry-level training in company operations and administration at the first-line supervisory level.

Versions 1 and 2: Upon successful completion of this course, the student will be able to effectively manage human resources; community/public relations; fire department organizations and administration; fire inspection, investigation, and public education; emergency service delivery; and safety as a company officer. (NFPA 1021, *Standard for Fire Officer Professional Qualifications*).

Versions 1 and 2: Major topics covered in the course are the role of the fire officer, the fire officer's responsibility in facing compliance and accountability, recognition and managing cultural diversity, safety and wellness, quality management within the organizational structure, community awareness, public relations, fire safety education, functional leadership, problem solving, performance appraisal, building construction, fire cause determination, effective communication skills, and incident command system with strategy and tactics. Methods of instruction include lecture, discussion, classroom exercises, case studies, audio/visual material, learner presentations/reports, preceptorship program, quizzes, a final examination, and completion of required skills and preceptorship program.

ACE/CREDIT recommendation for this course *Versions 1 & 2*: in the vocational certificate category or lower division baccalaureate/associate degree category, 4 semester hours in Fire Science Technology, Emergency Medical Service Technology, Emergency Management, or Public Administration (11/94) (12/99) (10/04).

FIRE OFFICER II (MGMT 202) (45 hours)

The prerequisites for this course are MFRI Fire Officer I, or MFSPQB, NPQS, or IFSAC Fire Officer I certification. It is suggested that a minimum of one year of experience at the Fire Officer I level be completed before enrolling in this program. Students must attend all sessions. Each session in this course has required homework. A score of 70% or better on the final examination written and practical are required to pass.

Versions 1 and 2: The objective of this course is to provide the student with training in company operations and administration that enhances the entry-level company officer training course.

Versions 1 and 2: Upon successful completion of this course, the student will be able to effectively manage human resources, community/public relations, fire department organization and administration, including budgets, reports, and planning; fire inspection, investigation, public education, and emergency service delivery; and safety. (NFPA 1021, *Standard for Fire Officer Professional Qualifications*.)

Version 1 and 2: Major topics covered in the course are human resource management, managing affirmative action, government agencies, supervisor and subordinate interaction, the budgetary process, information management systems, health and safety, fire safety inspection, public fire education, specialized fire protection equipment, organizational communications, strategic planning, and tactics. Methods of instruction include lecture, discussion, classroom exercises, case studies, audio/visual material, learner presentations/reports, quizzes, final written examination, and skills check-off list.

ACE/CREDIT recommendation for this course is *Version 1 & 2*: in the lower division baccalaureate/associate or upper division baccalaureate degree category, 3 semester hours in Fire Science Technology, Emergency Medical Service Technology, Emergency Management, or Public Administration (11/94) (12/99) (10/04).

FIRE OFFICER III (MGMT 301) (60 hours)

The prerequisites for this course are MFRI Fire Officer II, or MFSPQB, NPQS or IFSAC Fire Officer II certification. Students must attend all class sessions. This program involves required individual/group project assignments outside normal class time with classroom presentations and requires a solid background in verbal and written communication skills. All project assignments and presentations must be submitted at the designated time. All group assignments require mandatory participation by group members. Participants' grades incorporate final project, homework assignments, and peer evaluation.

Versions 1 and 2: The objective of this course is to provide the participant with the knowledge and skills required for the administrative and operational challenges of the fire service in the 21st century.

Versions 1 and 2: Upon successful completion of this course, the student will be able to qualify for certification at the Fire Officer III level (NFPA 1021) and function as a participant in the day-to-day administrative/operationally focused process of fire service organizational activities, including human resources management, ethics, community outreach programming, central record/data repository systems, budgeting processes, inspections/pre-incident planning, safety program development, in-basket assessment, and incident planning with multi-agency involvement (NFPA 1021, *Fire Officer Professional Qualifications*).

Version 1: Major topics covered in the course include program orientation; ethics; establishing a partnership with the community; budgetary process, budgeting and auditing practices, budget development, and fiscal planning; managing human resources; inspections and pre-incident planning for specific occupancies; risk management and safety programs; managing personnel evaluations, assessments centers, and accountability; emergency services

delivery; incident planning and multi-agency involvement. *Version 2:* Major topics covered in the course are program orientation; measuring service delivery; hazard analysis; variables affecting response; budgeting and fiscal planning; competitive bidding process; commodity types; purchasing methods; bid specifications; legal requirements and cost-reduction opportunities; human resources planning and scheduling; departmental administration; risk management, elements of and implementation of a safety and health program and safety audits; inspections and pre-incident planning; establishing a community and public partnership; incident planning and multi-agency involvement; and postincident analysis. *Versions 1 and 2:* Methods of instruction include lecture, discussion, classroom exercises, case studies, role-playing, problem solving, research and group projects, group presentations and peer evaluations. Student projects, presentations, and participation are evaluated based on instructor and peer evaluation process.

ACE/CREDIT recommendation for this course is *Version 1:* in the upper division baccalaureate or graduate degree category, 3 semester hours in Fire Science Management, Public Administration, or Business Management (12/99); *Version 2:* in the upper division baccalaureate or graduate degree category, 4 semester hours in Fire Science Management, Public Administration, Business Administration, or Emergency Management (10/04).

FIRE OFFICER IV (MGMT 401) (60 hours)

The prerequisite for this course is MFRI Fire Officer III, or MFSPQB, NPQS or IFSAC Fire Officer III Certification. Students must attend all class sessions. This program involves required individual/group project assignments outside normal class time with classroom presentations and requires a solid background in verbal and written communication skills. All project assignments and presentations must be submitted at the designated time. All group assignments require mandatory participation by group members.

Versions 1 and 2: The objective of this course is to provide the student with the knowledge and skills for successful performance as the chief fire officer for an organization.

Versions 1 and 2: Upon successful completion of this course, the student will be able to plan and monitor group projects; plan and evaluate community services needs; analyze process activity performance and use simulation to identify the means to correct any problems; provide ethical leadership; conduct risk management; manage training, grievance, member assistance and member incentive programs; and develop emergency operations and major incident action plans.

Version 1: Major topics covered in this course include creating successful projects, project charters, working as a team, creating a project plan, doing the project and closing out the project; community long-range service delivery plans, evaluating community needs, department capabilities and recommendations for improvements; benefits and principles of process quality improvement, performance analysis and problem identification, analytical methods to identify and correct problem performance issues and data analysis from simulations to propose changes; personal leadership/followership, ethics, customer service, peer group evaluation, risk management needs assessments, risk analysis matrix and controlling risk; training needs assessment, training programs and evaluating member incentive programs; community situations assessments, hazard analysis, emergency operation plan organization and development and hazard specific annex development; major incident action plans, unified command, civil disturbances, ICS and incident action plan development; peer group evaluations. Methods of instruction include lecture, discussion, classroom group activities, audio/visual materials, student presentations, papers, and a final examination. *Version 2:* Major topics covered in this course include effective use of teams and communications; leadership, personal awareness tool, leadership theories, and managing change; community relations, demographics, and needs, cultural awareness, and customer service; research papers; government relations and participation, political decision making process, monitoring legislative regulation, and accreditation; human resources management, laws, regulations, and court decisions, managing diversity, and the recruitment hiring/employment process; employee/management issues, collective bargaining, effective negotiations, and incentive programs; long-range planning, organizational values, mission, and vision, risk, hazard, and value analysis, standards of coverage, and capital resource procurement; education and in-service training goals, delivery, and evaluation; disaster planning, prevention and mitigation strategies, response and recovery efforts; health and safety programs, firefighter safety,

critical incident stress management, and monitoring risk management programs. Methods of instruction include lecture, discussion, classroom individual and group activities, audio/visual materials, research paper, and student presentations.

ACE/CREDIT recommendation for this course is *Versions 1 and 2*: in the upper division baccalaureate degree category, 3 semester hours in Fire Administration or Public Administration and in the graduate degree category, 1 semester hour in Research (2/09).

FIRE POLICE ORIENTATION (FIRE 112) (9 hours)

There are no prerequisites for this course. Students must attend all sessions.

The objective of this course is to provide the necessary information and skills for a member of the fire police to safely direct traffic and perform other safety-related duties at emergencies and special events.

Upon successful completion of this course, the student will be able to direct vehicular and pedestrian traffic at the scene of emergency incidents and non-emergency events.

Major topics covered in the course include personal conduct and professional duties; traffic control; road flare and traffic cone placement; crowd control; hazardous materials laws, regulation, and standards; use of the *Emergency Response Guidebook*; and helicopter operations.

FIREFIGHTER I (FIRE 101) (108 hours)

There are no prerequisites for this course. If students have no previous fire training, they would enter the class at session I. If students have completed Pre-Emergency Response Training between July 1, 1993 and June 30, 2000 or have completed Essentials of Firefighting IV, they could enter the class at session 7. If students have completed Pre-Emergency Response Training (57 hours completed after July 1, 2000) as part of a Firefighter I course, they could enter the class at session 20.

The student may miss three 3-hour sessions, excluding those listed as required attendance in the Student Manual Session Guide. There are homework assignments to be completed for grading by the instructor. There is a midterm and final written examination in this course. A score of 70% or better is required on both examinations. Individual practical skills are evaluated by the instructor throughout the course and again at the end of the course during operational readiness exercises. There is also a practical examination that must be completed at the end of the course. The student must successfully complete the final written examination to be eligible to take the practical examination.

The objective of this course is to provide students with the knowledge and skills to safely and effectively perform basic firefighting operations as part of a firefighting team.

Upon successful completion of this course, the student will be able to understand and apply the principles of fire behavior; building construction; water distribution systems; fixed fire protection systems; ventilation; hose streams; fire prevention; and inspections, ladders, and rescue techniques. (NFPA, 1001 *Standard for Fire Fighter Professional Qualifications*).

Major topics covered in the course are the fire department organization, communications, incident command system, ropes and knots, fire behavior, safety, fire prevention, personal protective equipment, fire extinguishers, respiratory protection, ventilation, hoselines, forcible entry, search and rescue procedures, and ladder and sprinkler systems. Methods of instruction include lecture, discussion, classroom exercises, audio/visual material, graded practical exercises, midterm and final examinations, series of practical examinations, and skills check off and homework assignments. Minimum passing score on midterm and final exams of 70%; 100% satisfactory completion of required skills and satisfactory evaluation by instructor.

ACE/CREDIT recommendation for this course is in the vocational certificate or lower division baccalaureate/associate degree category, 3 semester hours in Fire Science Technology (11/94) (12/99) (10/04).

FIREFIGHTER II (FIRE 201) (60 hours)

The prerequisites for this course are MFRI Firefighter I, or MFSPQB, NPQS, or IFSAC Firefighter I certification. A minimum of 1 year experience as a Firefighter I is suggested before enrolling. There are homework assignments to be completed for grading by the instructor. The student may miss two 3-hour sessions, excluding those listed as required attendance in the Student Manual Session Guide. There is a final written examination for this course as well as a team skills check off. A score of 70% or better on the final examination is required to pass. The skills check off is pass/fail, based on a standard checklist, with the opportunity for retraining and rechecking.

The objective of this course is to provide the knowledge and skills needed to become a journeyman firefighter.

Upon successful completion of this course, the student will be able to understand and apply the principles of fire behavior; building construction; water distribution systems; fixed fire protection systems; ventilation; hose streams; fire prevention; inspections; ladders; and rescue techniques. (NFPA 1001, *Standard for Fire Fighter Professional Qualifications*.)

Major topics covered in the course are incident command, building construction, ventilation, water distribution, hose streams, fixed fire protection systems, fire prevention, inspection preplanning, ladders, and rescue procedures. Methods of instruction include lecture, discussion, classroom exercises, audio/visual material, practical skills graded, and a final examination.

ACE/CREDIT recommendation for this course is in the vocational certificate category or lower division baccalaureate/associate degree category, 2 semester hours in Fire Science Technology (11/94) (12/99) (10/04).

FIREFIGHTER SAFETY AND SURVIVAL: COMPANY OFFICER'S RESPONSIBILITY (MGMT 124) (16 hours)

There is no prerequisite for this course.

The objective of this course is to provide the student with an appreciation of the seriousness of the firefighter injury and death problems and to provide an awareness of techniques for reducing injuries and deaths.

Upon successful completion of this course, the student will be able to understand the causes of injury and death; understand the behavior problems and attitudes that are addressed; identify health and fitness programs related to injury and death; identify hazardous situations found in training; identify and correct fire station hazards; identify and resolve hazards responding to and returning from a fire; identify and enforce procedures to improve incident scene safety; and identify safety and survival tips.

Major topics covered in the course are an explanation of firefighter injuries and death; firefighter health and fitness, safety in training, station and response preparation safety, incident safety, post-incident safety, and survival tips.

ACE/CREDIT for this course is in the lower division baccalaureate/associate degree category, 1 semester hour in Fire Administration, Fire Management, or Fire Science (12/88) (2/93).

FIREFIGHTER SURVIVAL AND RESCUE (FIRE 206) (18 hours)

The prerequisite for this course is MFRI Firefighter I. Students must attend all sessions. The student must complete all practical skills to the satisfaction of the instructor.

The objective of this course is to reduce firefighter death or injury by addressing concerns when operating at structural fires.

Upon successful completion of this course, students will be able to recognize and analyze dangerous conditions and learn how to keep themselves out of trouble, perform self-rescue when they find themselves in trouble, and provide rescue for other firefighters in trouble.

Major topics covered in this course include firefighter safety, regulations and standards, survival and rescue mindset, rapid intervention teams, 2-in/2-out, drags and carries, ladder usage, self-rescue, wall breach, disentanglement, and large-area search. Methods of instruction include lecture, discussion, classroom exercise, observations, checklist, and audio/visual material.

ACE/CREDIT recommendation for this course is in the vocational certificate or the lower division baccalaureate/associate degree category, 1-semester hour in Fire Science, Fire Technology, Fire Management, or Fire Administration (2/09).

FIRST RESPONDER BASIC (EMS 101) (45 hours)

There are no prerequisites for this course. Students may miss two 3-hour sessions, excluding those listed as required attendance in the Student Manual Session Guide. Students must successfully complete a skills proficiency record, the MIEMSS written examination with a score of 70% or better and the practical examination.

The objective of this course is to provide skills necessary to begin, at the emergency location, assessment and care for injured or ill patients.

Upon successful completion of this course, the student will be able to provide immediate medical care to critically ill or injured patients until personnel with advanced training arrive to assist those personnel.

Major topics covered in the course are an introduction to the EMS system; legal aspects of care, equipment, tools, and supplies; general anatomy and patient assessment; respiratory system, resuscitation, and CPR; aids to resuscitation and oxygen administration; management of bleeding, shock, and soft tissue injuries; management of fractures and spinal injuries; environmental emergencies and care of burns; care of special patients including obstetric, pediatric, and elderly; and special incidents including triage, water accidents, and gaining access to and moving patients. Methods of instruction include lecture, discussion, classroom exercises, audio/visual material, skills testing, written and practical examinations, and graded skill evaluations.

ACE/CREDIT recommendation for this course is in the vocational certificate category or lower division baccalaureate/associate degree category, 2 semester hours in Emergency Medical Service Technology or Fire Science Technology (11/94) (12/99) (10/04). (Note: Credit should not be awarded for this course and for Emergency Medical Technician-Basic or for Emergency Care Basic EMT/A.)

FIRST RESPONDER REFRESHER (EMS 201) (15 hours)

The prerequisite for this course is current First Responder certification. Students must attend all class sessions. Students must successfully complete a skills proficiency check off. A score of 70% or better is required to pass the final written examination.

The objective of this course is to provide skills necessary to begin assessment and care for injured or ill individuals at the emergency location. This course provides the 15 hours of continuing education required for First Responder recertification.

Upon successful completion of this course, the student will be able to provide immediate medical care to critically ill or injured patients until personnel with advanced training arrive, and the student will be able to assist those personnel in caring for the patient.

Major topics covered in the course include review of legal aspects of care, patient assessment and vital signs, respiratory and circulatory systems, CPR and airway obstruction techniques, oxygen delivery and adjuncts, suctioning wounds, bleeding control and shock, fractures, spinal injuries, medical and environmental emergencies, childbirth, special patients, crisis intervention, triage, and gaining access to and moving patients. Methods of instruction include review by discussion, classroom exercise to practice skills through scenarios, practical exercises, graded practical exercises, and written examination.

GERIATRIC EDUCATION FOR EMERGENCY MEDICAL SERVICES (EMS 316) (12 hours)

The prerequisite for this course is current certification as an emergency medical services provider. Course participants encompass all levels of EMS professionals, nurses, nurse practitioners, physician assistants, certified nurse anesthetists, and physicians. This diversity enhances the team approach to patient care. Successful completion of the course requires attendance both days, proficiency in the evaluation stations and a minimum score of 80% on the written examination.

The objective of this course is to provide the student with knowledge and skills required to successfully assess and manage a geriatric patient in the pre-hospital environment.

Upon successful completion of this course, the student will be able to discuss the social aspects of aging; explain the special needs of older patients and the changes that the aging process brings about in physical structure, body composition and organ function; discuss and recognize communication challenges in the older person and describe principles that should be employed when assessing and communicating with an older patient; discuss the appropriate management of a terminally ill older patient; compare the assessment of the older person with that of a younger adult patient; discuss the assessment and management of trauma, respiratory distress, chest pain, neurological emergencies, psychiatric emergencies, and other medical emergencies in the older adult; discuss physiological changes in older people; define and recognize the signs and symptoms of elder abuse or neglect; and discuss the role of the prehospital professional as an advocate for the older adult.

Major topics covered in the course include aging, changes with age, communicating with older people and their caregivers, assessment of the older patient, end-of-life care issues, trauma, musculoskeletal disorders and falls, immobilization, neurological emergencies and altered mental status, respiratory and cardiovascular emergencies, elder abuse and neglect, pharmacology and medication toxicity, psychiatric emergencies, and intravenous therapy. Methods of instruction include case-based lectures, classroom exercises, case studies, live action audio/visual material, hands-on skills stations, pretests, small group scenarios, and a final examination.

The continuing education hours are approved by the Maryland Institute for Emergency Medical Services Systems (MIEMSS) www.miemss.org and the Continuing Education Coordinating Board for Emergency Medical Services (CECBEMS) www.cecbems.org and are recognized by the National Registry of Emergency Medical Technicians (NREMT) www.nremt.org.

ACE/CREDIT recommendation for this course is in the vocational certificate category or lower division/baccalaureate/associate degree category, 1 semester hour in Emergency Medical Technology or Emergency Health Services (2/09).

HAZARDOUS MATERIALS ON-SCENE INCIDENT COMMANDER (HM 221) (15 hours)

The prerequisite for this course is Hazardous Materials Operations. This training program is designed to provide the student with the knowledge and skills to be able to assume responsibility and make decisions relating to the management of a hazardous materials incident.

Major topics include the hazardous materials management system; health and safety; incident management system; incident action plans; site management and control; problem identification; hazard and risk evaluation; personal protective equipment, information management and resource coordination; response objectives; decontamination management; and incident termination.

HAZARDOUS MATERIALS OPERATIONS (HM 102) (24 hours)

Although there are no prerequisites for this course, it is recommended that students complete Protective Envelope and Foam, Pre-Emergency Response Training, or Firefighter I prior to this course. Beginning in January 2011, Protective Envelope and Foam, Pre-Emergency Response Training, Firefighter I, or equivalent will be a prerequisite. The student may miss one 3-hour session, excluding those listed as required attendance in the Student Manual Session Guide. Successful completion of the course requires a score of 70% or better on the written midterm and final written and practical examinations.

Versions 1, 2, and 3: The objective of this course is to provide the student with the knowledge and skills to perform hazardous materials first response.

Versions 1, 2, and 3: Upon successful completion of this course, the student will be able to analyze a hazardous materials incident, plan an initial response, implement the response, and evaluate the progress of the actions taken.

Versions 1 & 2: Major topics covered in the course include firefighter safety, regulations and standards, chemistry, recognition and identifications, the DOT guidebook, site management, container behavior, defensive control measures, personal protective equipment, and decontamination. Methods of instruction include lecture, discussion, classroom exercises, audio/visual material, practical exercises, quizzes, observations, written examination and a final examination. *Version 3:* Major topics covered in this course include firefighter safety, regulations and standards, chemistry, recognition and identifications, DOT guidebook, site management, container behavior, defensive control measures, personal protective equipment, decontamination, and terrorist and other criminal activity. Methods of instruction include lecture, discussion, classroom exercises, audio/visual materials, practical exercises, and written examinations.

ACE/CREDIT recommendation for this course is *Version 1:* in the vocational certificate or lower division baccalaureate/ associate degree category, 1 semester hour in EMS Technology, Fire Sciences, or Emergency Management (9/96). *Version 2:* in the vocational certificate or lower division, baccalaureate/associate degree category, 1 semester hour in Fire Chemistry, Hazardous Materials Chemistry, or Emergency Management (9/03). *Version 3:* In the vocational certificate or the lower division baccalaureate/associate degree category, 1 semester hour in Fire Chemistry, Hazardous Materials Chemistry, Hazardous Materials Management, Emergency Management, or Fire Science (2/09).

HAZARDOUS MATERIALS TECHNICIAN (HM 201) (51 hours)

Prerequisites for this course are Hazardous Materials Operations and Firefighter I. The student may miss two 3-hour sessions, excluding those listed as required attendance in the Student Manual Session Guide. Successful completion of the course requires a score of 70% or better on the final written and practical examinations, and completion of the practical evolutions according to an established checklist.

The objective of this course is to provide students with the knowledge and skills to mitigate a hazardous materials leak.

Upon successful completion of this course, the student will be able to analyze a hazardous materials incident; plan a response; implement the response; evaluate the progress of the planned response; and terminate the incident. (NFPA 472, *Standard for Hazardous Materials Responder Professional Competencies*).

Major topics covered in the course are chemical and physical properties, recognition and identification of hazardous materials; laws, regulations, standards and information resources; personal protective equipment; detection devices, hazard and risk assessment, and decontamination; drum handling, damage assessment and tactical considerations, and leak control; handling cylinder emergencies, drum sampling, and terminating the incident; and required documentation. Methods of instruction include lecture, discussion, classroom exercises, case studies, role-playing, problem solving, written examination, and practical skills check-off based on an objective checklist.

ACE/CREDIT recommendation for this course is in the lower division baccalaureate/associate degree category, 3 semester hours in Fire Science Management, Fire Technology, Occupational Safety and Health, Environmental Safety, or Chemistry (12/99) (10/04).

HEALTH AND SAFETY OFFICER (Revised) (MGMT 125) (14 hours)

There are no prerequisites for this course. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

The objective of this course is to examine the health and safety officer's role in identifying, evaluating, and implementing policy and procedures that affect the safety and health of emergency responders.

Upon successful completion of this course, the student will be able to understand the role of the health and safety officer in both emergency and non-emergency situations.

Major topics covered in the course are the role of the health and safety officer, the laws, standards, and regulations, health maintenance, accident investigation, and post-incident examination. Methods of instruction include lecture, discussion, classroom exercises, case studies, audio/visual material, learner presentations/reports, end-of-course testing, and graded individual and group activities throughout the course.

ACE/CREDIT recommendation for this course is in the lower division baccalaureate/associate degree category or in the upper division baccalaureate degree category, 1 semester hour in Occupational Health and Safety, Fire Science, or Emergency Management (2/95) (12/99) (10/04).

INCIDENT COMMAND SYSTEM FOR HIGH-RISE OPERATIONS (MGMT 140) (15 hours)

There are no prerequisites for this course. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

The objective of this course is to assist emergency response officers responding to high-rise incidents in organizing resources, developing strategies, and managing tactical operations and interagency coordination to protect life and minimize damage.

The student will be able to list building construction and system features; explain characteristics and fire behavior concerns; identify high-rise fire Strategic Operating Guidelines; describe primary assignments for engine and truck company operations; identify life safety considerations involving evacuation procedures, rapid intervention, responder rehabilitation, and personnel accountability; explain the fundamental operation and impact of a heating, ventilating, and air conditioning (HVAC) system and fire department ventilation techniques at a high rise incident; and identify roles and responsibilities for command and control procedures for major high-rise operations. Methods of instruction include lecture, discussion, classroom exercises, audio/visual material, learner presentations/reports, and a final examination.

ACE/CREDIT recommendation for this course is in the vocational certificate or lower division baccalaureate/associate degree category, 1 semester hour in Fire Administration or Fire Science (9/03).

**INCIDENT COMMAND SYSTEM FOR STRUCTURAL COLLAPSE INCIDENTS (MGMT 141)
(16 hours)**

There are no prerequisites for this course. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

The objective of this course is to provide fire officers with an understanding of command operations at structural collapse incidents.

Upon successful completion of the course, the student will be able to describe aspects of a structural collapse; explain basic command procedures and ICS organizational structure; identify various resource levels, types, and capabilities used for structural collapse incidents; identify critical factors and issues that affect scene management; describe all unique operational considerations used in a structural collapse incident; describe all response operation phases associated with a structural collapse incident; and describe the technical rescue expertise and equipment required for safe operations and effective incident management.

Major topics covered in the course are incident command systems' collapse incident response capabilities, scene management, response factors, structural collapse, and operational phases. Methods of instruction include lecture, discussion, classroom exercises, audio/visual material, and a final examination.

ACE/CREDIT recommendation for this course is in the vocational certificate or lower division baccalaureate/associate degree category, 1 semester hour in Emergency Management or Fire Science (9/03).

INCIDENT SAFETY OFFICER (Revised) (MGMT 129) (16 hours)

There are no prerequisites for this course. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

The objective of this course is to provide understanding of the safety officer's role at emergency response situations, with specific emphasis on the role of the safety officer in the incident command system.

Upon successful completion of this course, the student will be able to demonstrate the skills required to function effectively as a safety officer at emergency incidents.

Major topics covered in the course are the role of the safety officer, regulations, standards and policies, record keeping and documentation and risk management and communications. Methods of instruction include lecture, discussion, classroom exercises, case studies, audio/visual material and a final examination.

ACE/CREDIT recommendation for this course is in the lower division baccalaureate/associate degree or in the upper division baccalaureate degree category, 1 semester hour in Occupational Health and Safety or Fire Science (2/95) (12/99) (10/04).

INFLUENCING (MGMT 128) (14 hours)

There is no prerequisite for this course.

The objective of this class is for students to be able to design and implement an influence plan.

Influencing is considered a critical leadership skill, particularly at the executive level. This course will examine how leaders successfully influence others to accomplish common goals. Formally planning to influence others will be a primary discussion area within the course. Case studies of executives influencing others will be analyzed to illustrate the challenges and opportunities associated with complex situations in the public sector.

There will be an extensive assignment to be completed the end of the first day. Class size is limited to 26 participants.

Upon completion of this program, chief officers of departments, chiefs of major bureaus, or battalion-level chiefs in (metro-sized) departments will be able to examine how leaders successfully influence others to accomplish common goals.

ACE/CREDIT recommendation for this course is in the upper division baccalaureate degree category, 1 semester hour in Business Administration, Fire Science Administration, or Public Administration (8/98).

INSTRUCTOR I (MGMT 110) (30 hours)

There are no prerequisites for this course. Students must attend all sessions. Students must demonstrate proficiency in instructional skills and receive satisfactory evaluations in classroom presentations. Students must complete an out-of-class “take home” examination and in-class multiple choice examination. A score of 70% or better on each examination is required to pass.

Versions 1 and 2: The objective of this course is to teach instructors and trainers how to organize and teach a course effectively, using existing lesson plans. *Version 1:* Upon successful completion of this course, the student will be able to make an effective classroom presentation based on appropriate lesson plans.

Version 2: Upon successful completion of this course, the student will be able to plan instruction, using a variety of instructional methods; teach diverse learners; evaluate course outcomes; and address the critical issues of safety and the legal issues of training. (NFPA 1041, *Standard for Fire Service Instructor Professional Qualifications*).

Version 1: Major topics covered in the course are an overview of instructor and student profiles, communicating methods, learning theories, learning environment, instructional materials and media usage, legal aspects of education, student records and reports, and participation in group activities and presentations. Methods of instruction include lecture, discussion, classroom exercises, case studies, audio/visual material, learner presentations/reports, examinations, written tests, quizzes, and presentations. *Version 2:* Major topics covered in the course are the challenges of emergency services instruction; speaking before a group; safety: the instructor’s role; legal considerations; the psychology of learning; instructional delivery practical training evolutions; and instructional media, testing, and evaluation. Methods of instruction include lecture, discussion, audio/visual material, learner presentations/reports, observations, and final examination.

ACE/CREDIT recommendation for this course is *Version 1:* In the vocational certificate category or lower division baccalaureate/associate degree category, 2 semester hours in Fire Science Technology, Public Administration, or Adult Education (11/94). (NOTE: Credit should not be granted for both Methods of Instruction Level II and this course because the content of Methods of Instruction Level I is repeated in the Level II course.) *Version 2:* In the lower division baccalaureate/associate degree category, 2 semester hours in Adult Education Methodology, Vocational Education, or Fire Science (12/99) (10/04). (NOTE: Credit should not be awarded for both this course, Methods of Instructor Training Course, Instructor I and Methods of Instruction Level II: Teaching and Program Development Techniques ITII.)

INSTRUCTOR II (MGMT 210) (36 hours)

The prerequisite for this course is Instructor I. Students must attend all class sessions. Students must demonstrate proficiency in instructional skills, receive satisfactory evaluations on classroom presentation and complete a term paper. Students must complete an out-of-class “take home” examination and in-class multiple choice examination.

Versions 1 and 2: The objective of this course is to prepare the student to use instructional methodologies that address various learning styles and teaching methods and to plan and develop lessons and programs for the purpose of delivering instruction.

Version 1: Upon successful completion of this course, the student will be able to describe and define instructional terms; use reference materials; use various instructional methods and techniques; use instructional materials and aids; evaluate learning; maintain training records and reports; describe concepts of learning; use communications methods and skills; and be aware of instructor rolls and responsibilities. *Version 2:* Upon successful completion of this course, the student will be able to plan and develop all aspects of course curriculum, including a needs analysis, task analysis, course goals and objectives, a lesson plan, instructional support materials, and evaluation instruments. (NFPA 1041, *Standard Fire Service Instructor Professional Qualification*).

Version 1: Major topics covered in the course are the development process, task analysis, developing goals and objectives, course development and lesson outline, developing instructional materials, instructional techniques, lesson preparation and delivery, evaluation process and methods, student records and reports, and participation in group activities and presentations. Methods of instruction include lecture, discussion, classroom exercises, case studies, audio/visual material, learner presentation/reports, research paper preparation and presentation, test, presentations, and a research paper. *Version 2:* Major topics covered in the course are planning instruction, the five-step process for planning and training management; needs analysis; course objectives; task analysis; lesson plan components; formats; creating, modifying, adapting, and using lesson plans, testing and evaluation; management and supervision of training; policies records, scheduling, and standards; recruiting and selecting instructors; and budget and resource management. Methods of instruction include lecture, discussion, classroom exercises, audio/visual material, learner presentations/reports, a research paper, papers, observations, and developing and presenting a training program.

ACE/CREDIT recommendation for this course is *Version 1:* In the lower division baccalaureate/associate or upper division baccalaureate degree category, 3 semester hours in Fire Science Technology, Public Administration, or Adult Education (11/94). (NOTE: Credit should not be granted for both Methods of Instruction Level I and this course because the content of Methods of Instruction I is repeated in the Level II course.) *Version 2:* In the lower division baccalaureate/associate or upper division baccalaureate degree category, 2 semester hours in Fire Science, Adult Education, or Vocational Education (12/99) (10/04). (NOTE: Credit should not be awarded for both Methods of Instruction: Instructor Training Course, Instructor I and this course.)

INTRODUCTION TO UNIFIED COMMAND FOR MULTIAGENCY AND CATASTROPHIC INCIDENTS (MGMT 121) (14 hours)

There are no prerequisites for this course. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

The objective of this course is to assist emergency response personnel in the understanding of, and the ability to apply, the Incident Command System (ICS) when multiple agencies are involved at major and catastrophic incidents, and to provide a better understanding of operations under a Unified Command (UC).

Upon successful completion of the course, the student will understand the role of the fire service, law enforcement, and emergency medical services (EMS) personnel in catastrophic incidents and will understand and apply the concepts of Incident Command and Unified Command in their communities.

Major topics covered in this course include preplanning focus; resource depletion; incident management teams; needs and development; area command elements, features, and guidelines for the use of unified command and command meeting; emergency operations centers; staff makeup and interaction and functional areas; similarities and differences of hazardous materials and terrorism incidents; the National Response Plan; Federal agencies available to assist; Incident Command System organization on arrival of the Federal Bureau of Investigation; the planning process; preplanning meeting; and incident command system forms.

Methods of instruction include lecture, discussion, individual activities, group activities, audio/visual materials and a final examination.

INTRODUCTION TO VOLUNTEER EMERGENCY SERVICES MANAGEMENT (MGMT 144) (14 hours)

There are no prerequisites for this course. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

The objective of this course is to provide volunteer emergency services officers with an introduction to a practical management-training program that will allow them to apply management concepts and principles to the real world of management of their organization.

Upon successful completion of this course, the student will be able to identify the transitional process from subordinate (member) to manager (officer); identify areas of personal change in moving from subordinate to manager; identify strengths and weaknesses; analyze the effects of various management styles in a management-subordinate relationship; identify elements of communication; positive and negative communication's effects on the management process; defining motivation; applying the four-step method of solving problems; the importance of a mission statement; developing a list of tasks needed to accomplish an objective; write a specific, measurable, and achievable management objective; compare the pressures for and against change by applying the problem analysis method; prioritize a list of tasks and develop a schedule for completion; apply the principles of organization that define authority, responsibility, and accountability; and apply the principles of controlling the development of policies, procedures and time lines.

Designed for newly elected or appointed officers, major topics covered in the course are handling problems by defining, analyzing, acting, and looking at results; authority and persuasion methods of influence; adapting between authority and persuasion; limitations of authority; role relationships; Theory X; motivation; Maslow's Hierarchy of Needs; Theory Y; planning, organizing, and controlling; writing objectives; group process; establishing controls; developing policies; establishing procedures; and monitoring. Methods of instruction include lecture, discussion, classroom exercises, role-playing, case studies, audio/visual material, and learner presentations/reports and examination.

LEADERSHIP I: STRATEGIES FOR COMPANY SUCCESS (MGMT 130) (12 hours)

There are no prerequisites for this course. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

The objective of this course is to provide the student with leadership skills of mid-level managers, especially fire company officers.

Upon successful completion of this course, the student will be able to apply appropriate decision-making styles to given situations, outline critical steps in problem-solving methods; identify services provided by a "typical" fire company and the resources needed to provide these services; understand the relationship between resources and services provided by a fire company; and describe the requirements involved in running effective meetings.

Major topics covered in the course are decision-making, problem solving, brainstorming, and meeting management. Methods of instruction include lecture, discussion, audio/visual aids, and examinations.

ACE/CREDIT recommendation for this course is in the lower division baccalaureate/associate degree category, 1 semester hour in Business Administration, Fire Science, Public Administration, or Urban/Regional Planning (11/89) (2/95) (12/99) (10/04).

LEADERSHIP II: STRATEGIES FOR PERSONAL SUCCESS (MGMT 131) (12 hours)

There are no prerequisites for this course. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

The objective of this course is to provide the student with an understanding of leadership skills and tasks associated with management of multiple roles of managers, ethics, abuse of power, and personal creativity.

Upon successful completion of this course, the student will be able to identify typical roles and responsibilities of a commanding officer; identify, define, and analyze the role of creativity and innovation in fire service organizations; identify the sources and limits of different types of power; and make appropriate decisions involving ethical issues.

Major topics covered in the course include ethics, role conflict, fostering creativity and innovation, and power. Methods of instruction include lecture, discussion, audio/visual aids, role-playing, and examinations.

ACE/CREDIT recommendation for this course is in the lower division baccalaureate/associate degree category, 1 semester hour in Business Administration, Fire Science, Public Administration, or Urban/Regional Planning (11/89) (2/95) (12/99) (10/04).

LEADERSHIP III: STRATEGIES FOR SUPERVISORY SUCCESS (MGMT 132) (12 hours)

There are no prerequisites for this course. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

The objective of this course is to provide the student with an understanding of basic leadership skills related to supervision of personnel.

Upon successful completion of this course, the student will be able to describe the relationship between development level and leadership style; identify benefits derived from effective delegation and barriers that prevent it; recognize similarities that characterize effective coaches and effective leaders; and use discipline to correct improper employee behavior.

Major topics covered in the course are situational leadership, delegation, coaching, and discipline. Methods of instruction include lecture, discussion, audio/visual aids, small group activity, and examinations.

ACE/CREDIT recommendation for this course is in the lower division baccalaureate/associate degree category, 1 semester hour in Business Administration, Fire Science, Public Administration, or Urban/Regional Planning (11/89) (2/95) (12/99) (10/04).

MANAGING AND LEADING CHANGE (MGMT 137) (14 hours)

There is no prerequisite for this course.

The objective of this course is for the student to be able to apply a four-step model to facilitate the dynamic process of managing and leading change within fire and emergency service organizations.

Students will be introduced to a four-step model for managing change effectively. These activities include analysis, planning, implementation, and evaluation. The same model will be used to examine the executive role of leading change. A variety of activities and simulations will apply theories to contemporary issues that executive officers experience daily.

A variety of instructional techniques will be utilized including lecture, discussion, small group activities, role-playing, and a major assignment to be completed the evening of the first day. Class size is limited to 26 participants.

Upon successful completion of this program, chief officers of departments, chiefs of major bureaus, or battalion-level chiefs in (metro-sized) departments will be able to apply a four-step model to analyze, plan, implement, and evaluate change within their departments and to examine the executive role in leading that change.

ACE/CREDIT recommendation for this course is in lower division baccalaureate/associate degree category, 1 semester hour in Business Management (8/98).

MANAGING IN A CHANGING ENVIRONMENT (MGMT 133) (13 hours)

There are no prerequisites for this course. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

Versions 1 and 2: The objective of this course is to identify the impacts of economic, social, political, and technological changes and develop effective strategies for managing those changes within fire departments.

Versions 1 and 2: Upon successful completion of the course, the student will be able to effectively manage changes impacting fire service organizations.

Versions 1 and 2: Major topics covered in the course are an overview of significant economic, social, political, and technological influences affecting fire service operations. Methods of instruction include lecture, discussion, individual and group activities, and final examination.

ACE/CREDIT recommendation for this program is *Version 1:* in the lower division baccalaureate/associate degree category, 1 semester hour in Fire Science, Economics, Sociology, Management, or Business (9/99). *Version 2:* in the lower division baccalaureate/associate degree category, 1 semester hour in Fire Science, Emergency Medical Services Technology, Emergency Management, Economics, Sociology, Management, Public Administration or Business (9/03).

NIMS ICS-300, INTERMEDIATE ICS FOR EXPANDING INCIDENTS FOR OPERATIONAL FIRST RESPONDERS (MGMT 263) (24 hours)

The prerequisites for this course are ICS-700, ICS-100, and ICS-200.

This three-day course is designed for middle management personnel who may function at the following Incident Command System (ICS) levels: Multi-Agency Coordination System/Emergency Operations Center Staff, Branch Directors, Division/Group Supervisors, Unit Leaders, Task Forces and Strike Team Leaders. This program describes how the NIMS Command and Management component supports the management of expanding incidents and describes the incident/event management process for expanding incidents and supervisors as prescribed by the Incident Command System.

NIMS ICS-400, ADVANCED ICS FOR COMMAND AND GENERAL STAFF, COMPLEX INCIDENTS AND MACS FOR OPERATIONAL FIRST RESPONDERS (MGMT 264) (16 hours)

The prerequisites for this course are ICS-700, ICS-100, ICS-200, and ICS-300.

This two-day course is designed for department heads with Multi-Agency Coordination System responsibilities, Area Commanders, Emergency Managers, and Multi-Agency Coordination System/Emergency Operations Center Managers. This program describes how major incidents pose special management challenges, the circumstances in

which an Area Command is established, and the circumstances in which multi-agency coordination systems are established.

**NIMS INCIDENT COMMAND SYSTEM FOR EMERGENCY MEDICAL SERVICES (MGMT 145)
(14 hours)**

There are no prerequisites for this course. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

The objective of this course is to develop an understanding of the Incident Command System (ICS) and its application to both emergency and non-emergency situations.

Upon successful completion of this course, the student will be able to understand the basic need, structure, and flexibility of an ICS and understand the skills necessary to function effectively within an ICS organization.

Major topics covered in the course are the benefits of ICS, multiple casualty incidents, six stages of an incident, command procedures and functions, strategic planning, establishing the command organization, single versus unified command, and expanding the command staff. Methods of instruction include lecture, discussion, individual and group activities, audio/visual material, and a final written examination.

ACE/Credit recommendation for this program is in the vocational certificate category or the lower division baccalaureate/associate degree category, 1 semester hour in Fire Science, Emergency Medical Services, or Emergency Management (2/09).

NIMS INCIDENT COMMAND SYSTEM FOR THE FIRE SERVICE (MGMT 120) (16 hours)

There are no prerequisites for this course. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

The objective of this course is to develop an understanding of the Incident Command System (ICS) and its application to both emergency and non-emergency situations.

Upon successful completion of this course, the student will be able to understand the basic need, structure, and flexibility of an ICS and understand the skills necessary to function effectively within an ICS organization.

Major topics covered in the course are the history of elements and components of the incident command system, command responsibilities, expanding the system, command staff positions, incident scene accountability, rapid intervention crews, resource determination, ICS organizational chart format, and ICS system functions and components. Methods of instruction include lecture, discussion, individual and group activities, audio/visual material, and a final written examination.

ACE/Credit recommendation for this program is in the vocational certificate category or in the lower division baccalaureate/associate category, 1 semester hour in Fire Science, Fire Technology, Fire Administration, Emergency Management or Public Administration (2/09).

PARAMEDIC REFRESHER COURSE (EMS 301) (40 hours)

The prerequisite for this course is current certification as an ALS provider. Successful completion of the course requires attendance for all ten modules, proficiency in the evaluation stations and a minimum score of 75% on the written examination.

Versions 1 and 2: The objective of this course is to provide the student with the knowledge and skills required to integrate the pathophysiological principles and the assessment findings to formulate a field impression and

implement a treatment plan for the sick or injured adult or pediatric patient in a prehospital setting while satisfying the re-registration requirements of the National Registry of Emergency Medical Technicians (NREMT) www.nremt.org.

Versions 1 and 2: Upon successful completion of this course, the student will be able to integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the sick or injured adult or pediatric patient in a prehospital setting.

Version 1: Major topics covered in the course are sudden death in the young athlete, pediatric advanced life support, drugs of abuse, the Federal Response Plan, emergency preparedness, burn management, extremity trauma, spinal trauma, head trauma, obstetrics, child abuse and neglect, domestic violence, pediatric emergencies, the prehospital implications of Automatic Implant Cardio Defibrillators (AICD) and Ventricular Assist Devices (VAD), hypertension and peripheral vascular disease, and management of the difficult airway. Methods of instruction include interactive lectures, audio/visual materials, hands-on skills stations, small group scenario exercises, and written examinations. *Version 2:* Major topics covered in the course include fundamentals of trauma care, therapeutic hypothermia, pediatric trauma, altered mental status, febrile illness, GI emergencies, emergency childbirth and newborn stabilization, basic airway management and ventilation, the difficult and obstructed airway, capnography, rapid sequence intubation, burn management, hand trauma and reattachment technology, cerebrovascular disease, ventricular assist devices, pediatric toxicology, polypharmacy, hypertension and peripheral vascular disease. Methods of instruction include interactive lectures, hands-on skills and simulation sessions, small group scenarios, and written examinations.

Students with current PEPP certification will receive a renewed PEPP card with successful completion of this course.

The continuing education hours are approved by the Maryland Institute for Emergency Medical Services Systems (MIEMSS) www.miemss.org and the Continuing Education Coordinating Board for Emergency Medical Services (CECBEMS) www.cecbems.org and are recognized by the National Registry of Emergency Medical Technicians (NREMT) www.nremt.org.

ACE/Credit recommendation for this program is *Version 1:* in the lower division baccalaureate/associate or in the upper division baccalaureate degree category, 3 semester hours in Emergency Medical Services Administration, Community Health, or Allied Health Care (10/04). *Version 2:* In the lower division baccalaureate/associate degree category, 3 semester hours in Emergency Medical Services, Community Health Care or Allied Health (2/09).

PEDIATRIC EDUCATION FOR PREHOSPITAL PROFESSIONALS (EMS 317) (16 hours)

The prerequisite for this course is current certification as an emergency medical services provider. Course participants encompass all levels of EMS professionals, nurses, nurse practitioners, physician assistants, certified nurse anesthetists, and physicians. This diversity enhances the team approach to patient care. Successful completion of the course requires attendance both days, proficiency in the evaluation stations, and a minimum score of 80% on the written examination.

The objective of this course is to provide the student with the knowledge and skills required to successfully assess and manage ill or injured children in the prehospital environment.

Upon successful completion of this course, the student will be able to describe key growth and development characteristics for infants, toddlers, preschoolers, school-aged children, adolescents, and children with special health care needs; describe and apply the pediatric assessment triangle; describe the assessment and management of respiratory emergencies, cardiovascular emergencies, toxic exposures, trauma, and other medical emergencies in the pediatric patient; describe the preparation for a delivery and the post-delivery care of the mother and child; discuss important modifications of field assessment techniques for children with special health care needs; describe

sudden infant death syndrome; describe and recognize child maltreatment and describe the proper management of these patients; and discuss the role of the prehospital professional as an advocate for children.

Major topics covered in the course are the pediatric assessment triangle, airway management, fluid therapy, spinal immobilization, respiratory emergencies, children with special health care needs, child and family interaction, medical emergencies, trauma emergencies, child maltreatment, cardiovascular emergencies, emergency delivery, and newborn stabilization. Methods of instruction include case-based lectures, live-action audio/visual material, classroom exercises, hands-on skills stations and a final examination.

The continuing education hours are approved by the Maryland Institute for Emergency Medical Services Systems (MIEMSS) www.miemss.org and the Continuing Education Coordinating Board for Emergency Medical Services (CECBEMS) www.cecbems.org and are recognized by the National Registry of Emergency Medical Technicians (NREMT) www.nremt.org.

ACE/CREDIT recommendation for this course is in the vocational certificate or lower division baccalaureate/associate degree category, 1 semester hour in Emergency Medical Services Technology or Emergency Health Services (2/09).

PEDIATRIC EDUCATION FOR PREHOSPITAL PROFESSIONALS RENEWAL COURSE (EMS 318) (8 hours)

The prerequisite for this course is a Pediatric Education for Prehospital Professionals Course completion card. Successful completion of the course requires proficiency in the skills stations and a minimum score of 80% on the written examination.

The objective of this course is to provide the student with the knowledge and skills required to successfully assess and manage ill or injured children in the prehospital environment.

Upon successful completion of this course, the student will be able to describe key growth and development characteristics for infants, toddlers, preschoolers, school-aged children, adolescents, and children with special health care needs; describe and apply the pediatric assessment triangle; describe the assessment and management of respiratory emergencies, cardiovascular emergencies, toxic exposures, trauma, and other medical emergencies in the pediatric patient; describe the preparation for a delivery and the post-delivery care of the mother and child; discuss important modifications of field assessment techniques for children with special health care needs; describe sudden infant death syndrome; describe and recognize child maltreatment and describe the proper management of these patients; and discuss the role of the prehospital professional as an advocate for children.

The continuing education hours are approved by the Maryland Institute for Emergency Medical Services Systems (MIEMSS), www.miemss.org and are recognized by the National Registry of Emergency Medical Technicians (NREMT), www.nremt.org.

PRE-EMERGENCY RESPONSE TRAINING (FIRE 103) (57 hours)

There is no prerequisite for this course. Pre-Emergency Response Training is the first 19 sessions of the Fire-fighter I course including the midterm examination. Students may miss two 3-hour session, excluding those listed as required attendance in the Student Manual Session Guide. Students must successfully complete the midterm examination with a score of 70% or better.

The objective of this course is to provide the student with an introduction to the fire service in the areas of ropes and knots, fire behavior, personal protective equipment and respiratory protection, hose lines and appliances.

Upon successful completion of this course, the student will have a basic knowledge and understanding of protective clothing and self-contained breathing apparatus, fire behavior, the use of ropes and knots, and firefighter safety.

Major topics covered include fire department organization and the incident command system, ropes and knots, fire behavior, safety, fire prevention, respiratory protection and self-contained breathing apparatus, hoses, nozzles and appliances, and handling hose lines. Methods of instruction include lecture, discussion, practical exercises, graded practical exercises, and written examination.

PREHOSPITAL TRAUMA LIFE SUPPORT (EMS 319) (16 hours)

The prerequisite for this course is current certification as an emergency medical services provider. Successful completion of the course requires attendance both days, proficiency in the evaluation stations, and a minimum score of 74% on the written examination. Successful completion of the course provides certification in PHTLS.

The objective of this course is to provide the student with the tools to focus on the care of the trauma patient. This course provides a prehospital trauma care philosophy, stressing the need to treat the multi-system trauma patient as a unique entity with specific needs that requires an approach to treatment that varies from traditional treatment modalities.

Upon successful completion of this course, the practicing prehospital care provider will be able to apply specific knowledge related to the prehospital assessment care of the trauma patient. As a continuing education program it contains information that may be a review for some or all participants. The uniqueness of this program rests not with an entirely new body of information, but instead with advances in prehospital trauma intervention techniques. Students will learn to use new combinations and applications of existing skills and knowledge to better the patient's chances at surviving traumatic events.

The continuing education hours are approved by the Maryland Institute for Emergency Medical Services Systems (MIEMSS) www.miemss.org and the Continuing Education Coordinating Board for Emergency Medical Services (CECBEMS) www.cecbems.org and are recognized by the National Registry of Emergency Medical Technicians (NREMT) www.nremt.org.

ACE/Credit recommendation for this course is in the lower division baccalaureate/associate degree category, 1 semester hour in Health Science, Emergency Medical Services Administration, or Fire Science (10/04)

PREPARATION FOR INITIAL COMPANY OPERATIONS (FIRE 133) (12 hours)

There are no prerequisites for this course.

The objective of this course is to develop a better understanding of the role and responsibilities of a company officer in preparing the company for incident operations and to clarify the transition from firefighter to company officer and the new roles relating to leadership and safety.

Upon successful completion of this course, the student will have the basic knowledge, skills, and abilities to manage one or more companies operating at a structural fire emergency.

Major topics covered in the course are roles and responsibilities of company officers, readiness, communication, building construction and fire behavior, preincident preparation, and the recognition-primed decision (RPD) model of decision making. Methods of instruction include lecture, discussion, individual and group classroom exercises, audio/visual material, and a final written examination.

This course is designed for company officers, acting company officers, or senior firefighters responsible for the management of a single fire company at an emergency incident and those officers who are responsible for

company readiness, personnel safety, and leadership as it relates to company operation.

ACE/CREDIT recommendation for this course is in the vocational certificate category or the lower division baccalaureate/associate degree category, 1 semester hours in Fire Science, Fire Technology or Emergency Services (2/09).

PRINCIPLES OF BUILDING CONSTRUCTION: COMBUSTIBLE (FIRE 120) (14 hours)

There are no prerequisites for this course. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

The objective of this course is to provide knowledge about the classification system of buildings, the importance of fire resistance for structural support elements, and the risks associated with performing fire-suppression activities inside and around buildings involved in fire. One additional major goal of this course is to enhance the skills of emergency response personnel so they can “read” a building correctly and apply the information to the action plan for the incident.

Upon successful completion of this course, the student will be able to identify a building and correctly apply the classification system for the building in accordance with NFPA 220, *Standard on Types of Building Construction*; identify the important structural features of a building and use this information in the formation of the incident action plan including the strategic goals, tactical objectives, and incident priorities; identify critical size-up issues such as smoke, heat, and fire travel inside a structure and predict the path or method of travel based upon the building construction features; and identify critical safety issues that affect firefighter safety for each classification of construction and identify appropriate measures to enhance the safety of emergency responders.

Major topics covered in the course are the principles and classifications of building construction, wood frame buildings, ordinary construction, and heavy-timber construction. Methods of instruction include lecture, discussion, classroom exercises, audio/visual material, activities and presentations, and a final examination.

ACE/CREDIT recommendation for this course is in the vocational certificate category or in the lower division baccalaureate/associate degree category, 1 semester hour in Fire Science or Building Construction (2/09).

PRINCIPLES OF BUILDING CONSTRUCTION: NONCOMBUSTIBLE (FIRE 121) (12 hours)

There are no prerequisites for this course. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

The objective of this course is to enable the student to cite key features of non-combustible or fire-resistive buildings which affect emergency operations. Fire and safety concerns that exist in non-combustible and fire-resistive structures are studied.

Upon successful completion of this course, the student will be able to identify a building and correctly apply the classification system for the building in accordance with NFPA 220, *Standard on Types of Building Construction*; identify the important structural features of a building and use this information in the formation of the incident action plan including the strategic goals, tactical objectives, and incident priorities; identify critical size-up issues such as smoke, heat, and fire travel inside a structure and predict the path or method of travel based upon the building construction features; identify critical safety issues that affect firefighter safety for each classification of construction and identify appropriate measures to enhance the safety of emergency responders.

Major topics covered in the course are the key features of non-combustible and fire resistive buildings that affect emergency operations; fire behaviors of steel and concrete, presented so that the effect of their presence in non-combustible and fire resistive structures may be better anticipated; basic principles that apply to the spread of fire, products of combustion in structures, and special problems with interior finishes and building elements; testing

methods for materials; and the unique problems of conducting emergency operations in buildings under construction. Methods of instruction include lecture, discussion, classroom exercises, and a final exam.

ACE/CREDIT recommendation for this course is in the vocational certificate category and in the lower division baccalaureate/associate degree category, 1 semester hour in Fire Science, Building Construction, or Architecture (2/09).

PROTECTIVE ENVELOPE AND FOAM (FIRE 102) (9 hours)

There are no prerequisites for this course. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better on the written examination is required to pass this course. Students must successfully complete a skills check-off.

The objective of this course is to provide rescue and emergency care providers the skills necessary to mitigate a hazardous materials incident.

Upon successful completion of the course, students will be able to understand and apply the skills necessary to protect themselves in a hazardous materials situation and apply foam to hazardous materials based on standards found in NFPA 472, *Standard for Professional Competence of Responders to Hazardous Materials Incidents* (1997).

Major topics covered in the course include personal protective equipment, respiratory protection, self-contained breathing apparatus, handling hose lines, and foam application. Methods of instruction include lecture, discussion, practical exercises, graded practical exercises, and written examinations.

PUBLIC FIRE AND LIFE SAFETY EDUCATOR I (FIRE 111) (15 hours)

There are no prerequisites for this course. Students must attend all session. There is a final written examination for this course. A score of 70% or better is required to pass this course.

The objective of this course is to provide the student with the skills and knowledge to teach basic fire safety education in their communities and in their workplaces.

Upon successful completion of this course, the student will be able to discuss general guidelines for planning successful presentations, what motivates people to learn and how they learn differently, how to select training materials and evaluation instruments, how to work with the media and how to develop public service announcements that will attract attention to the safety message. NFPA 1035, *Standard for Professional Qualifications for Public Fire and Life Safety Educator*.

Major topics covered in the course include evaluation and certification requirements, terms and concepts of learning, motivation and learning, introduction to fire dynamics, fire protection systems, instructional methods, matching instructional methods and educational objectives, presentation methods and preparation, categories of instructional materials, educational materials and learning styles, media and communications, and preparation and delivery. Methods of instruction include lecture, discussion, audio/visual material, self-study, classroom exercises, presentations and final written examination.

ACE/CREDIT recommendation for this course is in the lower division baccalaureate/associate or in the upper division baccalaureate degree category, 1 semester hour in Fire Science, Fire Management, Fire Protection Technology, or Emergency Management (10/04).

PUBLIC FIRE EDUCATION PLANNING (FIRE 123) (12 hours)

There are no prerequisites for this course. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

The objective of this course is to provide those persons responsible for public fire education programs in their communities with information and concepts necessary for the successful planning and implementation of fire safety programs.

Upon successful completion of this course, the student will be able to give the history of public fire education, identify problems of implementation, identify community support, prepare scenarios of real or potential fire or burn problems in their communities, select objectives, design local programs, implement programs, determine methods of evaluating effectiveness of their programs, and list actions that should be taken to improve their individual fire education programs.

Major topics covered in the course include the purpose and need for public fire education programs, role of public fire education within the total fire protection system, preparing and presenting a fire safety program, the importance of a broad community representation, data, contributing factors to the fire and burn problem, audience selection, motivational factors, local resource identification, selecting achievable objectives, designing the fire safety message, proper timing, format, testing, implementation of program, procuring materials, gaining community support, monitoring the program, institutional change, education gain, reduced risk, reduced loss, and actions necessary to begin or improve local fire education programs. Methods of instruction include lecture, discussion, role-play, classroom exercises, case studies, audio/visual aids and practical application.

PUMP OPERATOR (FIRE 113) (30 hours)

There are no prerequisites for this course. Students may miss one 3-hour session, excluding those listed as required attendance in the Student Manual Session Guide. Students must complete homework assignments. The final examination must be completed with a score of 70% or better.

The objective of this course is to give the student the basic knowledge and skills needed to operate fire department pumping apparatus.

Upon successful completion of this course, the student will be able to determine how much water is flowing given the nozzles in service, the available pressure, and available hoselines; and calculate pressures needed for a supply pumper, relay pumper, and attack pumper. (NFPA Standard 1002, *Fire Department Vehicle Driver/Operator Professional Qualifications*).

Major topics covered in the course are basic terminology, water supply, water pressure and gauges, hydraulics, positive displacement props, centrifugal pumps, pump power supply systems, relief valves, pressure governors, primers, water sources, and maintenance. Methods of instruction include lecture, discussion, classroom exercises, audio/visual material, graded practical exercises, and final examination.

ACE/CREDIT recommendation for this course is in the lower division baccalaureate/associate degree category, 1 semester hour in Fire Science Technology (11/94) (12/99) (10/04).

RESCUE TECHNICIAN—CONFINED SPACE RESCUE (RES 202) (30 hours)

The prerequisites for this course are Protective Envelope and Foam, Pre-Emergency Response Training, Firefighter I, or equivalent and Rescue Technician—Site Operations (RES 101) or Rescue Technician—Site Operations and Vehicle and Machinery Rescue (RES 201). Students must attend all sessions. The final written and practical examination must be completed with a score of 70% or better.

The objective of this course is to provide the student with the knowledge and skills necessary for an emergency services provider to function as part of a special team to extricate victims from a confined space situation.

Upon successful completion of this course, the student will be able to function as part of an integrated rescue team utilizing incident command to accomplish a safe rescue.

Major topics covered in this course include safety, IDLH and OSHA regulations, extrication techniques in vertical and horizontal environments, and non-entry rescues. Methods of instruction include lecture, discussion, audio/visual material; team-focused practical exercises and a final examination.

ACE/CREDIT recommendation for this course is in the vocational certificate or the lower division baccalaureate/associate degree category, 1 semester hour in Rescue Technician or Firefighting: Special Topics (2/09).

RESCUE TECHNICIAN—R31 SWIFTWATER RESCUE TECHNICIAN ADVANCED (RES 204) (33 hours)

The prerequisite for this is Rescue Technician—R31 Swiftwater Rescue Technician Unit I. Participants should be able to swim 100 yards without stopping or using a flotation device and be able to tread water for 5 minutes without using a flotation device. Students must attend all sessions. The final written and practical examination must be completed with a score of 70% or better.

The objective of this course is to provide a base level of knowledge to aid rescuers with advanced problems of river searches, the use of boats, and rope systems.

Upon successful completion of this course, the student will be able to function as part of an integrated rescue team utilizing incident command to accomplish a safe rescue.

Major topics covered in this course include swiftwater operations, preincident planning, incident management, hazard mitigation, mechanical advantage rope rescue systems, highline rescue systems, mock night search, and other advanced rope rescue skills. Methods of instruction include lecture, classroom exercises, audio/visual material, field exercises, and a final examination.

ACE/CREDIT recommendation for this course is in the vocational certificate or lower division baccalaureate/associate degree category, 1 semester hour in Fire Science, Emergency Medical Services Technology, or Emergency Management (2/09).

RESCUE TECHNICIAN—R31 SWIFTWATER RESCUE TECHNICIAN UNIT I (RES 203) (30 hours)

The prerequisites for this course are Protective Envelope and Foam, Pre-Emergency Response Training, Firefighter I, or equivalent and Rescue Technician—Site Operations (RES 101) or Rescue Technician—Site Operations and Vehicle and Machinery Rescue (RES 201). Participants should be able to swim 100 yards without stopping or using a flotation device and be able to tread water for 5 minutes without using a flotation device. Students must attend all sessions. The final written and practical examination must be completed with a score of 70% or better.

The objective of this is to provide rescuers with an introduction to water hydraulics and interpretation, proper equipment use, and self rescue swimming techniques in swiftwater and flood conditions.

Upon successful completion of this course, the student will be able to function as part of an integrated swiftwater rescue team utilizing incident command to accomplish a safe rescue.

Major topics covered in the course are water hydrology, pre-incident planning, incident size up, incident management, safety, communications, victim rescue, surface watercraft, various in-water drills, par buckling and low-head dam phenomenon. Methods of instruction include lecture, discussion, classroom exercises, practical skills exercises, and a final written examination.

ACE/CREDIT recommendation for this course is in the vocational certificate or lower division baccalaureate/ associate degree category, 1 semester hour in Fire Science, Emergency Medical Services Technology, or Emergency Management (2/09).

RESCUE TECHNICIAN—SITE OPERATIONS (RES 101) (27 hours)

The prerequisite for this course is Protective Envelope and Foam, Pre-Emergency Response Training, Firefighter I or equivalent. Students must attend all sessions. There is a final written examination and a practical skills examination. A score of 70% or better is required on both examinations.

Upon successful completion of this course, the student will be able to perform site operations, victim management, maintenance of rescue equipment, and specific ropes and rigging rescue skills.

Site operations include identification of support resources required for specific rescue incidents, size up of a rescue incident, management of rescue incident hazards, management of resources in a rescue incident, conducting searches, performance of ground support for helicopter activities, and termination of a technical rescue operation.

Victim management includes triage of victims, movement of a victim in a low-angle environment, and transfer of a victim to emergency medical services.

Maintenance includes inspection and maintenance of hazard-specific personal protective equipment and inspection and maintenance of technical rescue equipment.

Ropes and rigging skills include tying knots, bends and hitches; constructing a single-point anchor system; use of edge protection; constructing a simple rope mechanical advantage system; directing a team in the operation of a simple rope mechanical advantage system in both a low- and high-angle raising operation; functioning as a litter tender in a low-angle lowering or hauling operation; constructing a lowering system; directing a lowering operation in a low- and high-angle environment; constructing and operating a belay system during a lowering or raising operation in a high-angle environment; and conducting a system safety check.

Beginning in July 2010, this course will become a prerequisite for all rescue courses.

RESCUE TECHNICIAN—STRUCTURAL COLLAPSE TECHNICIAN (RES 209) (84 hours)

The prerequisites for this course are Protective Envelope and Foam, Pre-Emergency Response Training, Firefighter I, or equivalent and Rescue Technician—Site Operations (RES 101) or Rescue Technician—Site Operations and Vehicle and Machinery Rescue (RES 201). Students must attend all sessions. The final written and practical examination must be completed with a score of 70% or better.

The objective of this course is to provide the student with the knowledge and skills necessary for an emergency services provider to function as part of a special team to extricate victims from a structural collapse situation.

Upon successful completion of this course, the student will be able to function as part of an integrated rescue team utilizing incident command to accomplish a safe rescue.

Major topics covered in this course include safety and security, building materials and structural collapse, collapse patterns, hazard identification and building monitoring, US&R strategy and structure size-up, tools, shoring basics, shoring construction, breaching, breaking, cutting and burning operations, lifting and rigging, and victim considerations. Methods of instruction include lecture, discussion, audio/visual material, team-focused practical exercises and written examinations.

ACE/CREDIT recommendation for this course is in the lower division baccalaureate/ associate degree category, 3 semester hours in Rescue Technician or Fire Fighting/Fire Science (2/09).

RESCUE TECHNICIAN—TECHNICAL ROPE RESCUE (RES 205) (54 hours)

The prerequisites for this course are Protective Envelope and Foam, Pre-Emergency Response Training, Firefighter I, or equivalent and Rescue Technician—Site Operations (RES 101) or Rescue Technician—Site Operations and Vehicle and Machinery Rescue (RES 201). Students must attend all sessions. The final written and practical examination must be completed with a score of 70% or better.

The objective of this course is to provide the skills necessary for an emergency services responder to function as part of a special team to extricate victims in low and high angle environments.

Upon successful completion of this course, the student will be able to function as part of an integrated rescue team utilizing incident command to accomplish a safe rescue.

Major topics covered in the course include anchoring, mechanical advantage systems, rappelling in the vertical environment, and constructing high-line rescue systems. Practical evolutions are team focused. Methods of instruction include lecture, discussion, audio/visual material, lab/shop instruction, skill check evaluations, and a final examination.

ACE/CREDIT recommendation for this course is in the vocational certificate or lower division baccalaureate/associate degree category, 1 semester hour in Rescue Technician or Firefighting: Special Topics (2/09).

RESCUE TECHNICIAN—TRENCH RESCUE OPERATIONS (RES 206) (30 hours)

The prerequisites for this course are Protective Envelope and Foam, Pre-Emergency Response Training, Firefighter I, or equivalent and Rescue Technician—Site Operations (RES 101) or Rescue Technician—Site Operations and Vehicle and Machinery Rescue (RES 201). Students must attend all sessions. The final written and practical examination must be completed with a score of 70% or better.

The objective of this program is to provide the student with the knowledge and skills to perform technician level trench rescue operations.

Upon successful completion of this course, the student will be able to function as part of an integrated trench rescue team.

Major topics covered in this course include preparation and response, support operations and trench access, disentanglement, trench rescue equipment, and practice sessions on intersecting and non-intersecting trenches. Methods of instruction include lecture, discussion, classroom exercises, audio/visual materials, practical exercises, and written examination.

ACE/CREDIT recommendation for this course is in the vocational certificate or the lower division baccalaureate/associate degree category, 1 semester hour in Rescue Technician or Firefighting: Special Topics (2/09).

RESCUE TECHNICIAN—VEHICLE AND MACHINERY EXTRICATION (RES 210) (27 hours)

The prerequisite for this course is Rescue Technician—Site Operations. Students must attend all sessions. There is a final written examination and a practical skills examination. A score of 70% or better is required on both examinations.

Upon successful completion of this course, the student will perform specific rescue skills applicable to common passenger vehicles and simple small machines (Level I) as well as rescue skills applicable to commercial or heavy vehicles, incidents involving complex extrication processes or multiple uncommon concurrent hazards, and incidents involving heavy machinery or more than digital entrapment (Level II).

Specific rescue skills include planning for a vehicle or machinery incident, performing on-going incident size-up, establishing scene safety zones, establishing fire protection, stabilizing vehicles or machines, isolating potentially harmful energy sources, determining access and egress points, creating access and egress openings, disentangling victims, removing packaged victims, and terminating vehicle or machinery rescue incidents.

SHAPING THE FUTURE (MGMT 138) (16 hours)

There are no prerequisites for this course. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

The objective of this course is to identify problems having an impact on organizational effectiveness; to apply creative problem solving for continuous improvement; to use quantifiable information to justify recommendations; and to develop strategies for implementing change.

Upon successful completion of this course, students will be able to provide leadership and direction for their fire department.

Major topics covered in the course are environmental scanning, paradigm shifts, and methods for re-framing problems accurately; group problem-solving techniques; and managing change. Methods of instruction include lecture, discussion, classroom exercises, audio/visual materials, individual and group activities, and a final examination.

ACE/CREDIT recommendation for this course is in the lower division baccalaureate/associate degree category, 1 semester hour in Management Science (9/03).

SHIPBOARD FIRE FIGHTING FOR LAND-BASED FIREFIGHTERS (FIRE 203) (63 hours)

This course is taught in two modules—a 24-hour Awareness module and a 39-hour Operations module. Certification as a shipboard firefighter requires successful completion of both modules.

ACE/CREDIT recommendation for this course is in the lower division baccalaureate/associate or upper division baccalaureate degree category, 3 semester hours in Fire Science or Fire Technology (12/99) (10/04).

SHIPBOARD FIRE FIGHTING AWARENESS (FIRE 204) (24 hours)

There are no prerequisites for this course. Students may miss one 3-hour session, excluding those listed as required attendance in the Student Manual Session Guide. Students must successfully complete the midterm examination with a score of 70% or better.

SHIPBOARD FIRE FIGHTING OPERATIONS (FIRE 205) (39 hours)

The prerequisites for the Operations module are successful completion of the Awareness module, plus MFRI Firefighter II, EMTB, and Hazardous Materials Operations, or MFSPQB, NPQS or IFSAC Firefighter II certification. The student may miss one 3-hour session, excluding those listed as required attendance in the Student Manual Session Guide. A score of 70% or better on the final exam is required to pass, plus successful completion of a skills check off.

The objective of this course is to provide students with the knowledge and skills to safely and effectively perform shipboard fire suppression operations as part of a firefighting team.

Upon successful completion of this course, the student will be able to describe the role of the fire department and other agencies that respond to shipboard emergency incidents; understand and apply the principles of shipboard

fire behavior, firefighter safety, ship construction, arrangement, systems and staffing, shipboard fire fighting strategy and tactics, marine communications, incident management, and hazardous materials incident mitigation.

Major topics covered in the course are case studies and histories to introduce shipboard fire fighting and characteristics of shipboard incidents; shipboard fire fighting environment; port environment, terminal facility environment, and actions to protect the environment; fire department role; firefighter safety and survival; vessel types and crews; vessel construction and systems; access and egress to ship structures and compartments; vessel fire control plan; size-up; tactics; water survival; communications; incident command system; hazardous materials; ship tours; live fire practicals; organizational resources; pre-incident survey; ship stability; strategy for the marine environment; and the U.S. Coast Guard role. Methods of instruction include lecture; discussion; classroom exercises; case studies; role-playing; problem solving; computer-assisted exercises, videotape, audio tape, TV-based exercises; laboratory activities; written examinations; and observation of student participation during class activities, including locating shipboard equipment unassisted, using engineering drawings, demonstrating water survival skills unassisted, and demonstrating fire suppression skills as a member of a team.

STRATEGY AND TACTICS FOR INITIAL COMPANY OPERATIONS (FIRE 124) (12 hours)

There are no prerequisites for this course. Students must attend all sessions.

The objective of this course is to develop the management skills needed by the Company Officers to accomplish assigned tactics at structure fires.

Upon successful completion of this course, the student will be able to discuss the scientific method, describe the primary sizeup factors and determine their impact on objectives and strategies and analyze the command sequence action planning cycle; select and deploy the appropriate hoselines to accomplish fire confinement, exposure protection and fire extinguishment; select appropriate ventilation, rescue, support and overhaul tactics based on principles and tactical considerations; and identify the principles of water supply and tactics using municipal sources, static sources and portable sources, fixed fire suppression systems and salvage.

Major topics covered in the course are the analytical sizeup process, scientific method, variables, making decisions, establishing objectives, evaluating primary factors, and command sequence action planning cycle; fire confinement, exposure protection and fire extinguishment; rescue operations, ventilation practices, incident support operations and overhauling tactics; water supply, fixed suppression systems and salvage operations. Methods of instruction include lecture, discussion, audio/visual material, individual activities, small group activities, demonstration, simulations and a final written examination.

ACE/CREDIT recommendation for this course is in the lower division baccalaureate/ associate degree category, 1 semester hour in Fire Science Technology (10/04).

TRAFFIC INCIDENT MANAGEMENT (FIRE 132) (8 hours)

There are no prerequisites for this course. Students must attend all sessions. There is a final written examination for this course. A score of 70% or better is required to pass this course.

The objective of this course is to enable emergency services responders to increase safety and reduce incident clearance rates at motor vehicle incidents.

Upon successful completion of this course, the student will be able to work with multiple agencies on a motor vehicle crash or other traffic incident to increase safety on the scene and return the site to normal operation as rapidly as possible.

Major emphasis of the course will be to combine the knowledge, abilities, and resources of all responders, making full use of available technology and addressing responsibilities of the wide variety of agencies that may be encountered on a roadway emergency including police, fire, EMS, HAZMAT, DOT, DOE, FEMA, media, and tow operators. Methods of instruction include lecture, discussion, group activities, and case studies.

TRUCK COMPANY FIREGROUND OPERATIONS (FIRE 202) (24 hours)

The prerequisite for this course is Basic Fire, Essentials of Firefighting IV, MFRI Firefighter I, or equivalent. The student may miss one 3-hour session, excluding those listed as required attendance in the Student Manual Session Guide. A score of 70% or better on the final examination is required to pass.

The objective of this course is to provide the student with the fundamental principles of truck company operations and how they are integrated during fireground operations.

Upon successful completion of this course, the student will be able to demonstrate forcible entry, search and rescue, ventilation, salvage, overhaul, and ladders.

Major topics covered in the course are the function and responsibilities of the truck company, forced entry, ground ladder use, techniques and procedures for locating victims, techniques for removal of smoke and gases, salvage operations, checking for fire extension, procedures for overhauling, building construction, utility control, and electrical and lighting the fireground. Methods of instruction include lecture, discussion, audio/visual material, practical skills exercises, final examination, and required assignments.

ACE/CREDIT recommendation for this course is in the vocational certificate category, 1 semester hour in Fire Science Technology (11/94) (12/99) (10/04).

WMD AWARENESS LEVEL TRAINING (HM 124) (6 hours)

There are no prerequisites for this course. Students must attend all sessions. There is a final written examination. A score of 70% or better is required to pass this course.

The objective of this course is to standardize the minimum WMD awareness level learning objectives and to establish a common baseline to ensure nationwide consistency in WMD education and training.

Upon successful completion of this course, the student will be able to identify indicators of potential terrorist activities and targets and the agents commonly used in terrorist activity.

Major topics covered in this course include indicators of potential terrorist activity; potential terrorist targets; identification and signs/symptoms of chemical agents, biological agents, and radiological materials; characteristics of explosives; and indicators of explosive manufacture. Methods of instruction include lecture, discussion, case studies, audio/visual material, pre-test and a final examination.

**MARYLAND FIRE AND RESCUE INSTITUTE
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College Park, MD 20742
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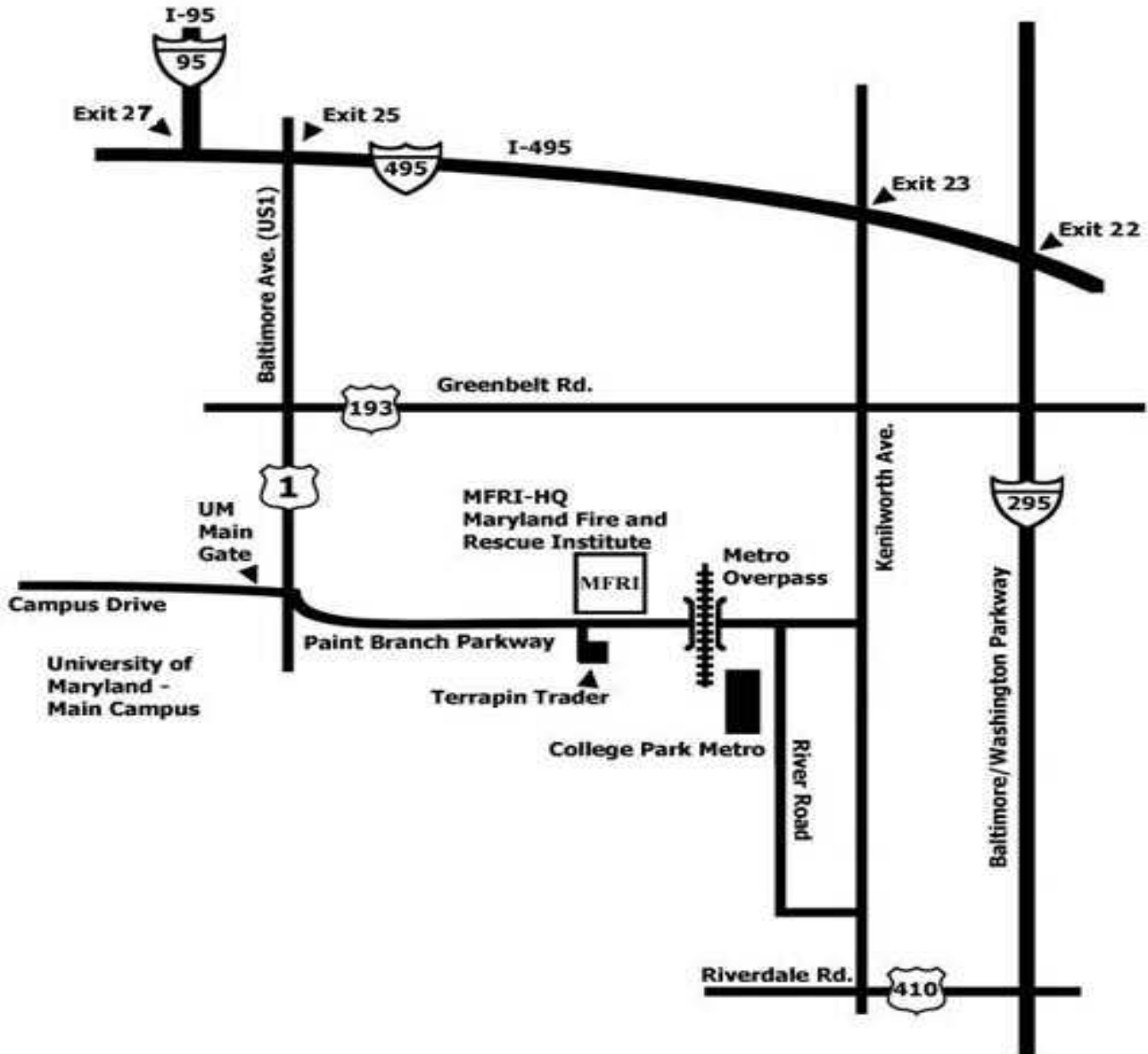
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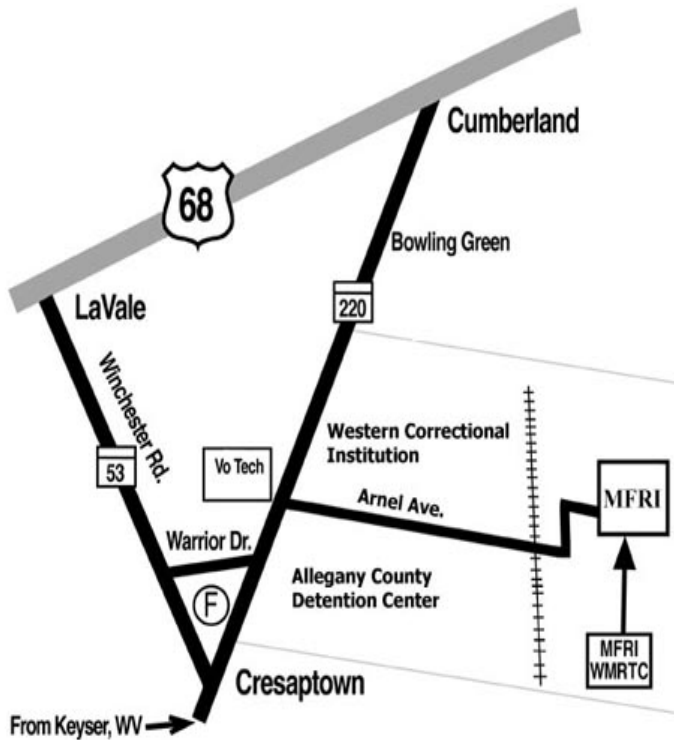
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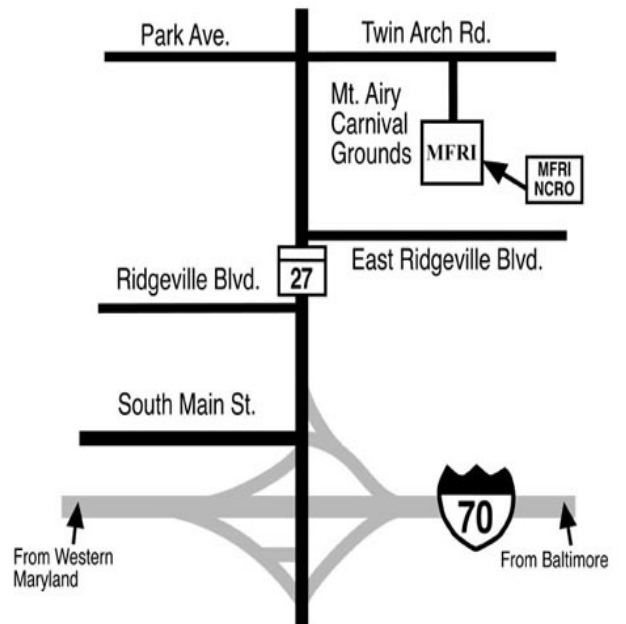
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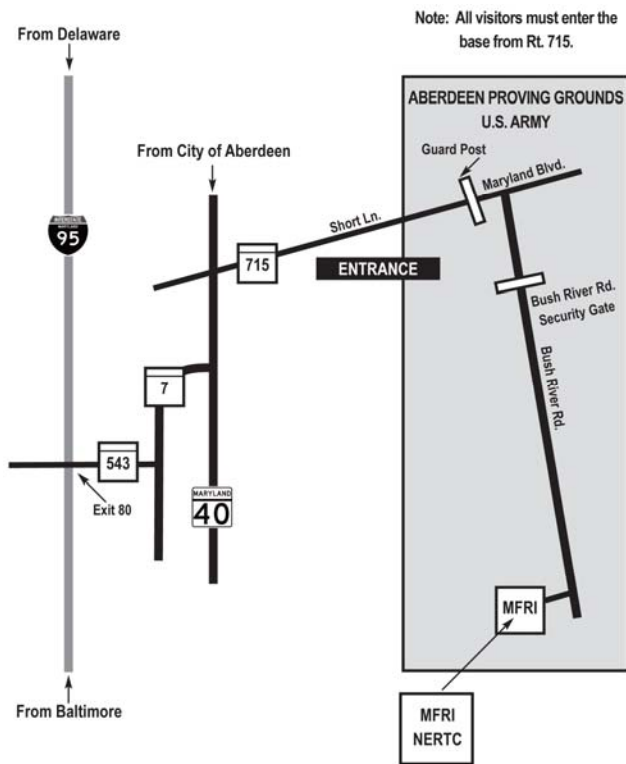
Western Maryland MFRI – WMRTC



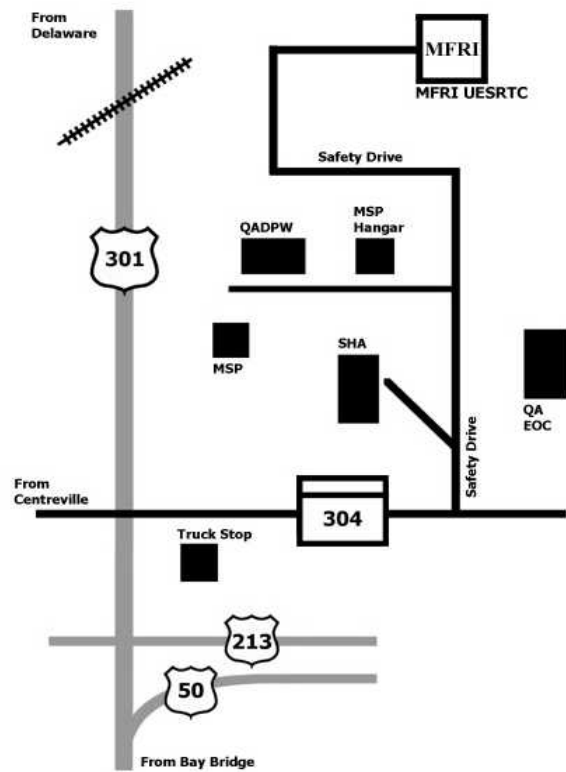
North Central MFRI – NCRO



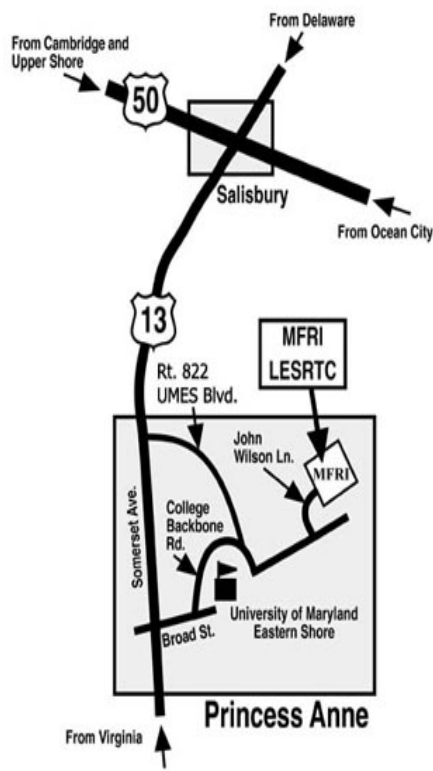
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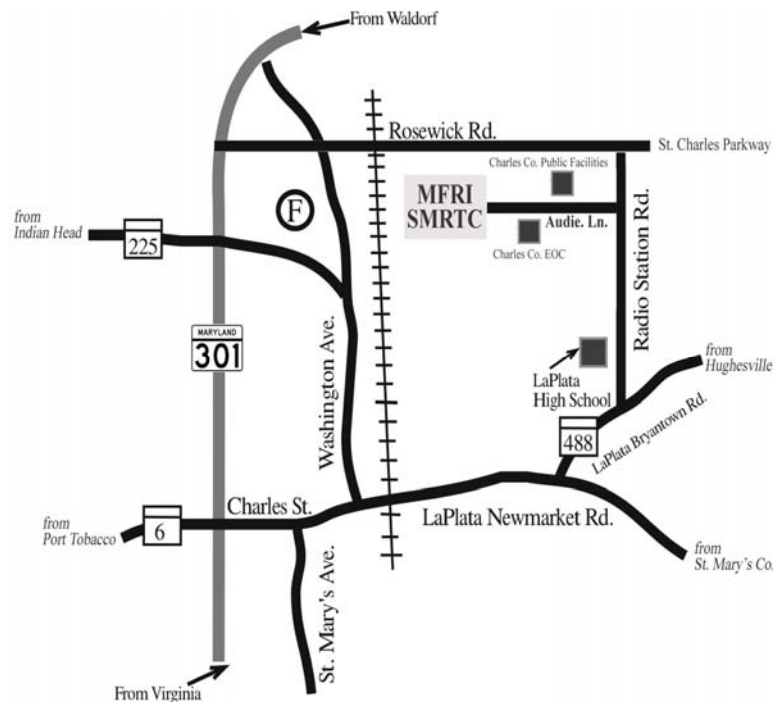
Upper Eastern Shore MFRI – UESRTC



Lower Eastern Shore MFRI – LESRTC



Southern Maryland MFRI – SMRTC



Maryland Fire and Rescue Institute

University of Maryland
College Park, MD 20742

Phone: 301-226-9960
Fax: 301-314-1497

Transcript Request

I, the undersigned, in compliance with the federal ***Family Educational Rights and Privacy Act (FERPA)*** authorize and give my permission to the Maryland Fire and Rescue Institute of the University of Maryland to release a transcript of my training.

(Please Print)

Name _____
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Signature _____

If you are authorizing the release of this transcript to someone other than yourself, you must provide the following information.

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Note: Transcript request must be submitted in writing and may be mailed **or** faxed to the Maryland Fire and Rescue Institute. However, a completed transcript may never be faxed, but will be mailed to requestor.

MARYLAND FIRE AND RESCUE INSTITUTE

University of Maryland
College Park, MD 20742

Office: 301-226-9960
Fax: 301-314-1497

Multiple Transcript Request

We, the undersigned, in compliance with the federal ***Family Educational Rights and Privacy Act (FERPA)***, authorize and give our permission to the Maryland Fire and Rescue Institute of the University of Maryland to release a transcript of our training records to:

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Print Address

| Printed Name of Student | Signature of Student | Social Security No. |
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Note: Transcript request must be submitted in writing and may be mailed **or** faxed to the Maryland Fire and Rescue Institute. However, a completed transcript may never be faxed, but will be mailed to requestor.

