

## **PART THREE – A MODEL FOR TRAINING AND EDUCATION**

*This is the third in a series of articles about professional status for the Fire and Emergency Services through a system of training and education. In Part One, the need for a system of training for the fire and emergency professional was discussed, and the challenges with our current separate systems were identified. Comparisons among other professions (Medicine, Law, Nursing etc.) and the Fire and Emergency Services were examined. Part Two discussed the Training and Education systems available to the fire service today – local, state and national programs and the way they compliment and supplement each other. Part Three will discuss the Fire and Emergency Services Higher Education effort (FESHE), the development of model two and four-year degree curricula, syllabi and content, and the release of the thirteen USFA/NFA courses into four-year bachelor degree programs.*

What follows is a discussion about what many national fire service leaders believe should be the future direction of professional development for the fire and emergency services. This document should serve as a starting point for discussions between State fire service training, certification, and higher education leaders, fire science coordinators and their advisory committees, fire academy instructors and their students, fire chiefs and their staffs, and any others who have an interest in fire service professional development.

### **The Problem: A Fragmented System of Professional Development**

Have you or someone you know:

- taken fire science courses at a two-year college;
  - taken courses at State and local fire training academies and through the National Fire Academy (NFA);
  - achieved various levels of certification;
- AND**
- all combined, these achievements are "all over the map", meaning none of them evolved in a coherent and planned way?

Most firefighters and officers have earned college credits and training certificates since their first day in the fire service. However, this professional development is usually uncoordinated and fragmented, resulting in duplications of effort and inefficiencies for students. Lack of coordination between fire-related training, higher education, and certification contributes to this problem.

Collaboration and coordination is needed between all service providers responsible for fire and emergency services' professional development. Each has a major role to play. This report presents the recommendations that have evolved over the past four annual Fire and Emergency Services Higher Education (FESHE) conferences. Combined, these products and outcomes represent a new strategic approach to professional development. They will help move the fire and emergency services from a technical occupation to a full-fledged profession similar to physicians, nurses, lawyers, and architects, who, unlike

fire service personnel, have common course requirements within their respective degree programs.

There are several major tenets on which a "profession" is built, including reciprocity for practicing in different States (with an exam), universally accepted standards of practice, and a professional development model, among others. The work accomplished during the FESHE conferences addresses one tenet--professional development.

### **The Role of FESHE Conferences**

The U.S. Fire Administration (USFA) hosts the annual FESHE conference on its campus in Emmitsburg, Maryland. These conferences are a combination of presentations, problem solving, and consensus-building sessions which result in higher education-related products or recommendations for national adoption.

At the 2000 conference, two panel discussions were conducted . The first panel included fire service leaders representing national fire service organizations, and the second was comprised of State directors of fire service training. Both panels raised issues that formed the basis for these national recommendations, including the need for:

- degree programs that teach critical thinking skills by requiring significant numbers of general education, rather than mostly fire science, courses;
- appropriate recognition of certification for academic credit and vice versa;
- associate degree programs that are transferable to baccalaureate programs;
- a model fire science curriculum at the associate level that universally standardizes what students learn and facilitates the application of these courses towards certification goals; and
- collaboration between fire service certification and training agencies and academic fire programs.

### **Fire and Emergency Services Professional Development Model**

The professional development model is one product finalized at the 2002 FESHE IV conference. It is **not** a promotion model addressing credentials; rather, it is an experience-based model that recommends an efficient path for fire service professional development supported by collaboration between fire-related training, higher education, and certification providers. The model recommends what these providers' respective roles should be and how they should coordinate their programs.



## Suggested Roles and Responsibilities

|  | Training   | Higher Education  |
|--|--|---|
| Learning Outcomes  | Provide students with practical applications that give them the "ability to do the work", using skills- or competency-based approaches.  | Provide graduates with cognitive skills that give them the "ability to manage."   |
| Firefighter I and II; Special Certification, and Fire Officer I - IV | Deliver courses that directly support Firefighter I and II, special certifications, and Fire Officer I-IV standards, as appropriate.   | Provide "officer development" and deliver courses that address Fire Officer I - IV certification. At the executive officer's level, a master's degree in public administration (or related disciplines) and applied training in strategic policymaking are desirable professional preparations. |
| Risk-Management Oriented   | <p>Direct all relevant and applicable curricula towards "risk management" because the fire service's response and mitigation missions have expanded greatly over the years to include all disasters, natural and manmade.</p> <p>Address "all hazards" rather than solely fire-related incidents. This coordination of training and higher education provides a professional development path for transforming chief fire officers into "all-risk managers."</p>   |   |
| Standards "Crosswalks"   | <p>Certification agencies identify the standards addressed by the fire science courses offered within their States, particularly those in the model curricula. Fire science publishers for the model associate courses identify standards addressed in their textbooks. NFA standards "crosswalks" for its resident, field, and baccalaureate courses are available on the USFA web page <a href="http://www.usfa.fema.gov/fire-service/nfa-abt7.cfm">http://www.usfa.fema.gov/fire-service/nfa-abt7.cfm</a>. Fire-related training, higher education, and certification service providers collaborate to promote students' eligibility to apply academic credits toward appropriate standards and vice versa.</p> |   |

## Model Curriculum

### Associate Degree Programs

Another result of the 2000 FESHE conference was the model fire science associate degree curriculum. The FESHE attendees identified six core associate-level courses in the model curriculum, including:

- *Building Construction for Fire Protection*
- *Fire Behavior and Combustion*
- *Fire Prevention*
- *Fire Protection Hydraulics and Water Supply*
- *Fire Protection Systems*
- *Principles of Emergency Services*

In 2001, the National Fire Science Curriculum Committee (NFSCC) was formed to develop standard titles, descriptions, outcomes, and outlines for each of the six core courses. In 2002, the FESHE IV conference attendees approved the model courses and outlines. The major publishers of fire-related textbooks are committed to writing texts for some, or all, of these courses.

It was recommended that all fire science associate degree programs require these courses as the "theoretical core" on which their major is based. The course outlines address the need for a uniformity of curriculum and content among the fire science courses within the United States' two-year programs. Many schools already offer these courses in their programs, while others are in the process of adopting them. Once adopted, these model courses address the need for problem-free student transfers between schools. Likewise, they promote crosswalks for those who apply their academic coursework toward satisfaction of the national qualification standards necessary for firefighter certifications and degrees.

The committee also developed similar outlines for other courses that are commonly offered in fire science programs. If a school offers any of these "non-core" courses, it is suggested these outlines be adopted, as well. The non-core courses are:

- *Fire Administration I*
- *Occupational Health and Safety*
- *Legal Aspects*
- *Hazardous Materials Chemistry*
- *Strategy and Tactics*
- *Fire Investigation I*
- *Fire Investigation II*

## Baccalaureate Degree Programs

At FESHE IV, NFA announced it would release its 13-course upper-level Degrees at a Distance Program (DDP) curriculum to accredited baccalaureate degree programs which have signed agreements with their State's fire service training agency. DDP will remain as NFA's delivery system for the 13 courses; however, release to other schools enables the formation of model curriculum at this level. The courses are:

- *Advanced Fire Administration*
- *Analytical Approaches to Public Fire Protection*
- *Applications of Fire Research*
- *Community and the Fire Threat*
- *Disaster and Fire Defense Planning*
- *Fire Dynamics*
- *Fire Prevention Organization and Management*
- *Fire Protection Structures and Systems Design*
- *Fire-Related Human Behavior*
- *Incendiary Fire Analysis and Investigation*
- *Managerial Issues in Hazardous Materials*
- *Personnel Management for the Fire Service*
- *Political and Legal Foundations of Fire Protection*

### **A National System for Fire-Related Higher Education**

With model lower-level (associate) curriculum outlines developed and established upper-level (baccalaureate) courses available, the major components are in place to move towards a national system for fire-related higher education.

Most core and non-core courses line up with baccalaureate courses of similar content, thus preparing associate degree graduates for their bachelor degree studies.

**Lower-level Course**

**Corresponding Upper-level Course**

*Fire Behavior & Combustion*

*Fire Dynamics*

*Fire Prevention*

*Fire Prevention Organization & Management*

*Fire Protection Hydraulics and Water Supply/Fire Protection Systems*

*Fire Protection Structures and Systems Design*

*Hazardous Materials Chemistry*

*Managerial Issues in Hazardous Materials*

*Strategy and Tactics*

*Disaster and Fire Defense Planning*

*Fire Administration I*

*Advanced Fire Administration*

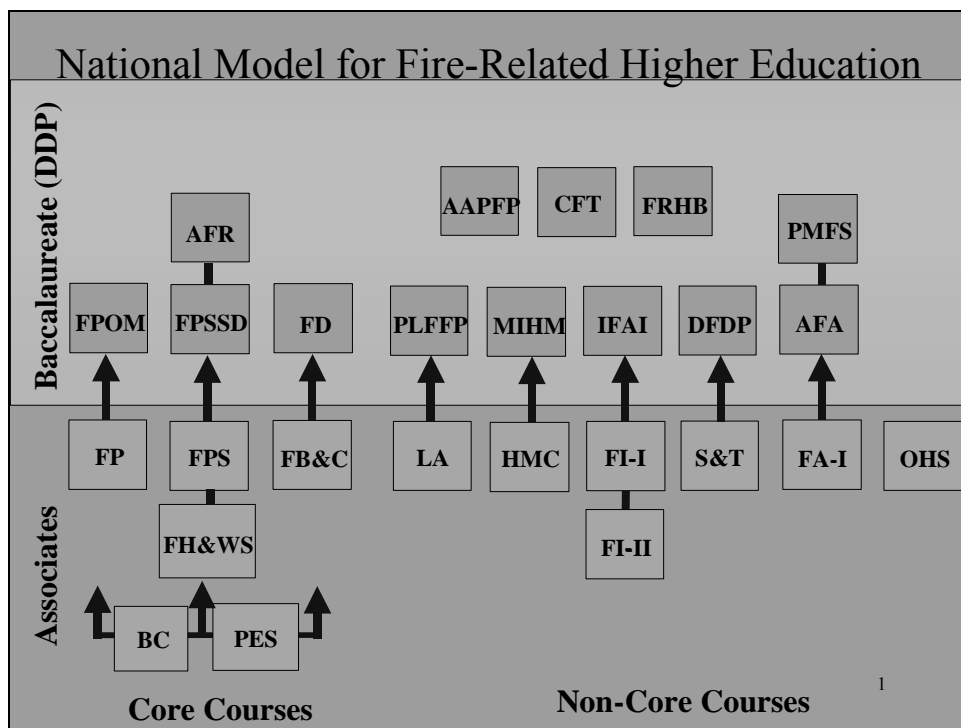
*Legal Aspects*

*Political and Legal Foundations of Fire Protection*

*Fire Investigation I & II*

*Incendiary Fire Analysis and Investigation*

This national system for fire-related higher education is important because, as with other professions, a theoretical core of academic courses should be a prerequisite for entering these fields. As more schools adopt these curricula, the fire and emergency services moves towards becoming a full-fledged profession.



## **A Call For Collaboration**

There are no easy paths to uniting the "big three" of the fire and emergency services professional development system. The relationships between the providers of training, certification, and higher education are varied across the country. In most States, levels of cooperation among the three range from excellent to nonexistent.

Some exceptional State models of cooperation do exist, however, including California and Oregon. The models' similarities demonstrate that:

- partnerships can solve training, education, and turf battles by bringing together stakeholders in some formal or informal organization or consortium; and
- through cooperation, a professional development delivery system that works for the State can be created and maintained.

Who are the stakeholders from which this leadership must emanate? They are the State offices responsible for fire service training and certification, the fire-related degree programs, and the State organizations representing fire chiefs, firefighters, volunteers, instructors, and other vital constituencies. We need many leaders at all levels. At the Federal level, the USFA can bring the national stakeholders together to build momentum for this effort.

An effective model for a State professional development "summit" was presented at the FESHE IV conference. It provides a plan of action for Washington State, including stakeholder involvement and consensus strategies.

What might be the elements of a State professional development plan? In addition to spelling out who should be responsible for learning at each level of certification, it recommends:

- the extent to which certifications should be granted academic credit;
- the extent to which academic credit should be accepted towards satisfaction of standards;
- the numbers and types of fire-related and general education courses; and
- the types of degrees--Associate of Arts/Associate of Science transferable to baccalaureate programs versus terminal or nontransferable degrees.

Only the State and local leaders can make this happen. We urge you to contact the fire and emergency services leaders in your State and urge them to begin the difficult path of transforming this Nation's fire service's professional development into a national system.