

## Appendix A

### The University of North Carolina Notification of Intent to Plan a New Baccalaureate, Master's, or C.A.S. Program

*THE PURPOSE OF ACADEMIC PROGRAM PLANNING: Planning a new academic degree program provides an opportunity for an institution to make the case for need and demand and for its ability to offer a quality program. This notification and the planning activity to follow do not guarantee that authorization to establish will be granted.*

**Date 2/20/2008**

**Constituent Institution:** The University of North Carolina at Charlotte

CIP Discipline Specialty Title: Fire Protection, Other.

CIP Discipline Specialty Number: 43.0299 Level: B  M  C.A.S.

Exact Title of the Proposed Program Master of Fire Protection & Administration

Exact Degree Abbreviation (e.g. B.S., B.A., M.A., M.S., C.A.S.): MFPA

Does the proposed program constitute a substantive change as defined by SACS? Yes  No

a) Is it at a more advanced level than those previously authorized? Yes  No

b) Is the proposed program in a new discipline division? Yes  No

Approximate date for submitting the Request to Establish proposal (must be within one year of date of submission of notification of intent to plan): May 2008

Proposed date to establish degree: month August year 2009 (Date can be no sooner than six months after the date of notification of intent to plan and must allow at least three months for review of the request to establish, once submitted.)

#### 1. Describe the proposed new degree program. The description should include:

##### a) a brief description of the program and a statement of educational objectives

The Department of Engineering Technology proposes creation of the Master of Fire Protection and Administration (MFPA) degree program. The program will consist of a common core, a concentration in either Fire Administration or Fire Protection, and a capstone experience.

The primary objective of the UNC Charlotte Master of Fire Protection and Administration (MFPA) program is to provide graduate level education for those engaged in the field of fire protection and administration, as well as other safety and emergency services related occupations.

The fire protection concentration will prepare fire protection professionals to use modern fire protection methodologies, techniques and tools for fire protection design, fire investigation, industrial fire safety, key infrastructure security, safety assessment, and other fire safety related matters. The fire administration concentration will prepare those who are engaged in occupations in the fire and safety field to effectively manage the administrative decision-making requirements of both public and private entities.

Students enrolled will 1) take a common core of 15 credits which includes study in both fire protection and fire administration; 2) choose additional concentrated study of 9 credits in either fire protection or fire administration, and 3) select a 6 credit capstone experience from thesis or non-thesis options. Distance students will be directed toward the non-thesis capstone while resident students may complete either option.

Common Core Courses (15-credit hours)

MFPA 6246	Systems Approach to Fire Safety	3 credits
MFPA 5132	Fire and Building Codes, Standards and Practices	3 credits
MFPA 5123	Industrial Fire Protection	3 credits
MFPA 6244	Detection, Alarm and Smoke Control	3 credits
MFPA 5223	Industrial Safety and Facilities Management	3 credits

Students select one of the following concentration cores:

Fire Administration Concentration Core (9-credit hours)

MFPA 5150	Human Resource Management in Emergency Services	3 credits
MFPA 6120	Public and Private Sector Interoperability	3 credits
MFPA 6124	Fire Service and the Community	3 credits

Fire Protection Concentration Core (9-credit hours)

MFPA 6103	Fire Modeling	3 credits
MFPA 6203	Fire Dynamics	3 credits
MFPA 6232	Structural Fire Protection	3 credits

Students select 6 hours of the following directed electives:

Capstone Experience (6 hours from the following)

MFPA 6900	Thesis	6 credits
MFPA 6243	Research Investigation	3 credits
MFPA 6800	Independent Study	3 credits
MFPA 6233	Performance-Based Design	3 credits
MFPA 6113	Fire Failure Analysis	3 credits
MFPA 6144	Fire Protection Systems	3 credits
MFPA 6164	Fire Science Laboratory	3 credits
MFPA 6126	Arson for Profit	3 credits
MFPA 6252	Law and Fire Safety	3 credits
MFPA 6255	Leadership/Conflict Management in Public Emergency Services	3 credits
MFPA 6260	Organization and Management of Public Fire Protection	3 credits
MFPA 6270	Budgeting, Grants, Contracts and Finance in Emergency Services	3 credits
FMET 5135	Building Energy Management	3 credits
FMET 5240	Maintenance of Constructed Facilities	3 credits

**b) the relationship of the proposed new program to the institutional mission and how the program fits into the institution's strategic plan**

The proposed Master of Science in Fire Protection and Administration (MFPA) graduate program meshes nicely with the institutional mission and strategic plan. The program will address the broad areas of concern listed in the mission statement, specifically areas three (Urban and Regional Development) and seven (Applied Sciences and Technologies)

As the first graduate level Fire Protection and Administration program, or more directly, the first fire related graduate program of any description in the state of North Carolina and the entire Southeastern region of the United States, the program will provide opportunities for students all across the region to receive an advanced degree in their chosen field. Moreover this will establish UNC Charlotte as the recognized leader in the southeast in the field of fire protection. Additionally, the graduate program will further assist the Engineering Technology Department and its faculty in becoming

active participants in the institutional goal of raising the University's graduate research and scholarly profile.

**c) the relationship of the proposed new program to other existing programs at the institution**

The proposed program would be located in the Department of Engineering Technology and will serve students graduating from the Fire Safety Engineering Technology (FSET) program. Of note, since this will be the only degree of this type in the state and region; it is expected to draw students from across the southeast United States. Many practicing fire protection professionals are already in place but have had no place to turn for an advanced degree. The implementation of this degree will provide a much sought after opportunity for those individuals to pursue graduate study. Since the degree will be offered concurrently on-campus and as a distance education offering (primarily via the Internet), the possibility exists for enrollments from across North Carolina, the U.S., and perhaps, internationally.

This program will offer a variety of classes that may be of interest to those seeking degrees in other disciplines such as Civil, Mechanical and Electrical Engineering, Engineering Management, and Construction and Facilities Management, and Architecture. The program will be delivered by the Fire Safety faculty and will certainly lead to increased research and external funding opportunities for the Department and College of Engineering.

**d) special features or conditions that make the institution a desirable, unique, or appropriate place to initiate such a degree program.**

First and foremost, this will be the only degree of this type in the state and region. The demand for professionals in the field of fire protection exceeds the number of students graduating. An example of this is evidenced by a special publication produced by the Society of Fire Protection Engineers. The publication titled *Careers in Fire Protection Engineering* states that the shortages are "particularly acute in western and southern United States where there are no colleges with fire protection engineering programs". An executive summary of the article and reports from which it was compiled is available at [www.sfpe.org](http://www.sfpe.org).

Additionally, SFPE is developing a Higher Education Initiative to increase the number of Fire Protection programs. There is a task group working to identify potential schools including determining their funding and resource needs. This creates an ideal opportunity to gain external support for the proposed program.

The FSET program at UNC Charlotte has quickly become a leader in undergraduate fire safety education. The faculty is well known in professional circles and the graduates are quickly hired in both industry and the public service areas. Increased threats to homeland security, threats to the infrastructure and heightened expectations of the public for their safety and wellbeing place demands on the profession that are often not met with only an undergraduate degree. To cope with these new responsibilities, graduate education must prepare the professional to meet these demands.

The FSET program, with a proven track record for delivering online education, is a logical choice to deliver this degree. The FSET program has been delivering the BS program via Distance Ed since 2000 and has developed a unique and successful strategy for interactive student participation that blends both synchronous and asynchronous delivery. The proposed graduate program will be delivered both on campus and via Distance Ed by building upon the successful model utilized by the undergraduate program.

Furthermore, the FSET program already has an established fire research laboratory. The Laboratory houses several pieces of state of the art fire tests apparatus such as a Cone Calorimeter, an Intermediate Scale Calorimeter, a Lateral Ignition and Flamespread Test, and an intermediate scale furnace equipped with load frames. The Intermediate Scale Calorimeter (ICAL) is unique test apparatus and UNC Charlotte has one of the five ICALs currently in use in the United States. In addition, the program recently invested in a structural fire testing facility, one of only a few at U.S. academic institutions. This program will also provide a place for graduates of the undergraduate Fire Science program at Fayetteville State and undergraduate Emergency Management program at Western Carolina to continue their fire education.

**2. List all other public and private institutions of higher education in North Carolina currently operating programs similar to the proposed new degree program.**

There are no other public or private institutions of higher learning in North Carolina that offer a similar graduate program.

**3. Estimate the number of students that would be enrolled in the program during the first year of operation: Full-Time 6 Part-Time 10**

**4. If there are plans to offer the program away from campus during the first year of operation:**

- a) briefly describe these plans, including potential sites and possible method(s) of delivering instruction.

It is expected that this program will be concurrently delivered to on-campus students and to off-campus students via distance education, primarily through the internet. Place bound students and working adults will be able to complete the degree via the internet. Distance education students will be required to complete a non-thesis option in the program.

- b) indicate any similar programs being offered off-campus in North Carolina by other institutions (public or private)

There are no other similar programs in North Carolina.

- c) estimate the number of students that would be enrolled in the program during the first year of operation: Full-Time 5 Part-Time 8

Note: These distance education enrollment projections are in addition to the on-campus enrollment projections listed in item #3 above.

**5. List the names, titles, e-mail addresses and telephone numbers of the person(s) responsible for planning the proposed program.**

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This intent to plan a new program has been reviewed and approved by the appropriate campus committees and authorities.

**Chancellor** \_\_\_\_\_