

**CENTRAL MISSOURI STATE UNIVERSITY**



# FORM NP

## NEW PROGRAM PROPOSAL FORM

Sponsoring Institution(s): Central Missouri State University

Program Title: Crisis and Disaster Management

Degree/Certificate: Bachelor of Science

### Options:

Emergency Management

Hazardous Materials

Business Continuity

CIP Code: Will be provided

Implementation Date: Spring 2001

Cooperative Partners: none

Expected Date of First Graduation: May 2002

### AUTHORIZATION

Alice Greife, Chair and Professor 660-543-4017 or greife@cmsu1.cmsu.edu

### Need

#### Student Demand

1. Estimated enrollment each year for the first five years for full-time and part-time students.

Enrollment projections include delivery to students in multiple locations utilizing multiple distance education technologies.

### Form SE

#### STUDENT ENROLLMENT PROJECTIONS

Year	1	2	3	4	5
Full-time (30 hours/year)	15	25	35	40	50
Part-time (15 hours/year)	30	60	90	120	150
Total #students	45	85	125	160	200
Total hours/year	900	1650	2400	3000	3750



## 2. Will enrollment be capped in the future?

Enrollment in the program will not be capped, however the availability of seats in individual courses and the offering of multiple sections of courses will depend upon adequate revenue.

### Market Demand

Nationally, the Federal Emergency Management Agency (FEMA) provides the focus for emergency management activities. FEMA describes the process of crisis and disaster management as a four-stage activity consisting of mitigation, preparedness, response, and recovery. Recently, FEMA has increased its assistance for emergency management-related degree programs by creating the Emergency Management Institute (EMI) Higher Education Project. The goal of the EMI Higher Education Project is to support the development of emergency management degrees in all 50 states. In June 1998, FEMA/EMI's Higher Education Project posted a list of schools developing emergency management-related degrees on the Project website. As a result of this posting, the Department of Safety Science and Technology has received contacts from more than 50 individuals interested in pursuing a degree at Central Missouri State University. This listing continues to generate 3-5 contacts per month from potential students. Two of these contacts have resulted in students currently attending Central Missouri State University because of the development of the proposal. A 1999 Grandview High School graduate and a Missouri native recently retired from the military are taking general education courses in anticipation of approval of this degree proposal. According to the EMI Higher Education Project's website, only Central Missouri State University is developing a baccalaureate degree within Iowa, Kansas, Missouri, and Nebraska, the four states of FEMA Region 7 (EMI Higher Education Project, 1998).

The neighboring FEMA Region 6 (Arkansas, Louisiana, New Mexico, Oklahoma, and Texas) provides an example of the potential market growth. The University of North Texas has offered a baccalaureate degree in emergency management through traditional campus-focused delivery since the early 1980s. Their enrollment has remained steady at 50-60 students. In January 1998, Arkansas Tech University began to offer an emergency management degree that combined traditional campus delivery with on-line, off-site, and weekend courses throughout the state of Arkansas. On the second anniversary of the program, Rollans (personal communication, January 13, 2000) reported that the program has graduated 19 students and has 124 students who have selected the major. Approximately 40% of the students are full-time, on-campus students. In addition, Rollans states fire personnel constitute 35% of total enrollment, law enforcement personnel make up 25% of total enrollment, and emergency medical service personnel compose 5% of total enrollment.

Within the state of Missouri, the State Emergency Management Agency (SEMA) coordinates the resources available for crisis and disaster management. SEMA has created emergency plans that address the 'all-hazards' approach to emergency management adopted within the United States during the 1980s (Drabek & Hoetmer, 1991). The all-hazards approach recognizes four classifications of hazards: natural, technological, social, and environmental. In recent years, citizens of Missouri have faced each of these types of hazards, from flooding along Missouri's rivers, hazardous materials incidents along transportation corridors, to school safety issues and threats of biological or chemical terrorism. Every county in Missouri except one has had at least one presidential declaration of disaster between 1965 and 1998 (Presidential, 1999). Emergency planning at the local level that includes governmental units and business and industry has been recognized as an essential first step for effective management of crises and disasters.

The University of Missouri-Columbia Extension Fire and Rescue Training Institute (FRTI) is the primary provider of training to emergency services personnel in the state of Missouri. During the 1999 fiscal year, more than 20,000 emergency responders participated in FRTI program (Piringer, 2000). FRTI surveys participants to determine their educational and experiential backgrounds. According to Piringer, 73% of survey respondents have completed high school or have some college, but haven't completed a baccalaureate degree. Piringer (2000) reports that there is no baccalaureate degree program in the state of Missouri that meets the needs of these emergency professionals.

### Societal Need

Recently, national and international attention has been focused on the cost of crises and disasters, both personal, societal, and economic losses. Testimony before the United Nations General Assembly stated that natural disasters alone "cost the world an average \$87 billion per annum during the last decade. The cost of disasters in the 1990s has been nine times higher than in the



1960s” (Need, 1999). For this reason, the United Nations General Assembly designated the 1990s as the International Decade for Natural Disaster Reduction. Nationally, the Federal Emergency Management Agency (FEMA) reported that during the five-year period from 1989-1994, “291 presidential disaster declarations were issued. Federal disaster assistance made available to affected States, communities, and individuals cost the U. S. Treasury over \$34 billion” (Multihazard, 1997).

FEMA has stated that “we believe that in the future more and more emergency managers in government as well as in business and industry will come to the job with a college education that include a degree in emergency management” (EMI Higher Education Project, 1998). According to Drabek, (1987), the emergency manager in the Year 2000 will possess increased professionalism through certification and improved training and education. Citizens will benefit from the services of degreed crisis managers in the event of natural or man-made disasters. The community will benefit from increased economic stability that results from reduced financial losses in business and industry.

#### Methodology Used to Determine “B” and “C” Above

Beginning in 1997, the Department of Safety Science and Technology proposed the development of a baccalaureate degree program in emergency management. Ms. Dianna Bryant, CIH, Associate Professor of Industrial Hygiene, was assigned responsibility for research and data collection in support of development of the proposal. In the initial investigation of the feasibility of the proposal, department faculty attended the following meetings to identify a professional peer group and determine support for the proposed degree program.

- August 1997 Missouri Emergency Preparedness Association, Kansas City, MO
- August 1997 Arkansas Tech University, Russellville, AR
- September 1997 State Emergency Management Agency, Jefferson City, MO
- October 1997 National Safety Council Congress, Chicago, IL
- October 1997 SEMA Southwest Regional Meeting, Nixa, MO
- May 1998 National Fire Protection Association, Cincinnati, OH
- June 1998 FEMA/EMI Higher Education Project, Emmitsburg, MD
- November 1998 International Association of Emergency Managers, Norfolk, VA
- February 1999 FRTI Winter Fire School, Columbia, MO
- April 1999 SEMA/MEPA Conference, Lake of the Ozarks, MO
- July 1999 FEMA/EMI Higher Education Project, Emmitsburg, MD
- October 1999 National Safety Council Congress, New Orleans, LA
- October 1999 Certified Hazardous Material Managers Conference, Kansas City, MO
- December 1999 FEMA Region 7, Kansas City, MO
- December 1999 Kansas City Emergency Management Office, Kansas City, MO



Attendance at these meetings resulted in contact with thousands of individuals representing both industry and government. A brochure was distributed listing course descriptions, degree requirements, and contact information. Through attendance at these meetings, emergency management professionals in the state of Missouri were solicited to provide feedback regarding the proposal. An advisory committee representing major stakeholders was formed to review a detailed outline of the degree proposal. The committee includes:

Jeffery A. Hartle, CFPS      Chair, Proposal Advisory Committee Visiting Assistant Professor of Emergency Administration & Management, Arkansas Tech University, Russellville, AR

Wayne Blanchard, Ph.D.      Director-Higher Education Project, FEMA/Emergency Management Institute, Emmitsburg, MD

Tim Bonno, CBCP              Manager-National Security & Emergency Preparedness, Southwestern Bell Telephone, Ballwin, MO

Steve Daily                      Manager-Corporate Safety and Risk Management, Anheuser Busch Companies, St. Louis, MO

Bob Dopp                        Section Chief-Missouri Emergency Response Commission, State Emergency Management Agency, Jefferson City, MO

dent, International Association of Fire Chiefs, 1998-99 Fire Chief, Lee's Summit Fire Dept., Lee's Summit, MO

Training Officer, State Emergency Management Agency, Jefferson City, MO

Bonnie Martin                Area Coordinator/Planner, State Emergency Management Agency, Kansas City, MO

**Andy Miller                    Asset Protection Manager, Hallmark, Inc., Kansas City, MO**

Bruce Piringier                Director, Fire and Rescue Training Institute, University of Missouri-Columbia Extension, Columbia, MO

Joe Rachel                      Coordinator-Project Impact, Federal Emergency Management Agency-Region 7, Kansas City, MO

Director, Jefferson County Emergency Management Agency, Hillsboro, MO

## Duplication

In the state of Missouri, there is no baccalaureate degree program in crisis and disaster management, emergency management, or fire science. On February 5, 1999, the University of Missouri-Columbia Extension Fire and Rescue Training Institute (FRTI) hosted a meeting of fire science faculty from Missouri's community colleges. The purpose of the meeting was to identify a baccalaureate degree that would articulate with associate of applied science degrees in fire science across Missouri. No existing degree program offered in Missouri was determined to meet the needs of these emergency response professionals. Fire science faculty from Missouri community colleges reported that municipalities encourage pursuit of baccalaureate education and often require completion of a Bachelor of Science degree for promotion to senior fire service positions. Faculty from Central Missouri State University's Department of Safety Science and Technology presented a draft outline of the proposed Bachelor of Science degree in Crisis and Disaster Management. The assembled fire science educators were unanimous in their support of the degree proposal because the proposal provides a seamless transition for students transferring an associate of applied science degree in fire science from Missouri's community colleges.



# Collaboration

No collaboration currently exists between the proposed baccalaureate degree program in Crisis and Disaster Management and other institutions in the state of Missouri. Two potential collaborative efforts could result from the approval of the proposal.

Fire science faculties at Missouri's community colleges have indicated a strong desire to develop official articulation agreements between associate of applied science degree programs in fire science and the proposed baccalaureate degree in Crisis and Disaster Management. Articulation agreements will be pursued following approval of the proposal.

As a result of the listing of the degree proposal on FEMA's website, contact was received from Garrison Command at Fort Leonard Wood, MO. Currently 600 degrees are awarded annually by six colleges and universities to military personnel resident at Fort Leonard Wood (Maxwell, 1999). Fort Leonard Wood has been recently designated as the lead Army/National Guard training center for chemical and biological counterterrorism. Garrison Command seeks to expand the existing collaborative educational effort and has proposed including the Crisis and Disaster Management degree program in support of the mission of Fort Leonard Wood.

The proposal for a baccalaureate degree in Crisis and Disaster Management is unique and non-duplicative of any other program in the state of Missouri. The objective of the degree proposal is to make this degree available to any resident of the state of Missouri. Central Missouri State University will collaborate with any institution of higher learning in the state of Missouri in support of statewide delivery.

## FORM PS

### Program Structure

- A. Total credits required for graduation: 124 hours
- B. Residency requirements, if any: 30 hours
- C. General education: Total credits: 48 hours

University Studies (no departmentally specified courses) 48 hours

D. Major requirements: Total credits: 45 hours

**Theory: 21 hours**

Practice: 12 hours

Technical Option: 12 hours

Minor (required) 18-25 hours



<b>Theory</b>		
CDM 3000	Introduction to Crisis and Disaster Management	3 hours
CDM 3400	Community Mitigation and Recovery	3 hours
CDM 4200	Disaster Management Technology	3 hours
CDM 4800	Integrated Emergency Management	3 hours
	Departmentally approved management electives	6 hours
	Departmentally approved communication elective	3 hours
<b>Practice</b>		
CDM 4400	Research Issues in Crisis and Disaster Management	3 hours
CDM 4900	Directed Studies: Technology Applications	3 hours
CDM 4910	Special Projects: Field Exercises and Drills	3 hours
CDM 4990	Internship: Crisis and Disaster Management	3 hours
<b>Technical Option</b>	<b>Emergency Management</b>	
SS&T 3015	Emergency Preparedness	3 hours
CDM 3035	Emergency Response	3 hours
CDM 4035	Disaster and Society	3 hours
	Departmentally approved elective	3 hours
<b>Technical Option</b>	<b>Hazardous Materials</b>	
CDM 3225	Hazardous Materials Emergency Response	3 hours
SS&T 4215	Transportation and Storage of Hazardous Materials	3 hours
CDM 4245	Managerial Issues in Hazardous Materials	3 hours
	Departmentally approved elective	3 hours
<b>Technical Option</b>	<b>Business Continuity</b>	
CDM 3715	Business Continuity Planning	3 hours
SS&T 4720	Personnel and Information Security	3 hours
CDM 4745	Crisis Management	3 hours
	Departmentally approved elective	3 hours

E. Free elective credits: 6-13 hours

F. Requirements for thesis, internship or other capstone experience:

The major requires 12 hours of Practice as a capstone experience, to include research, directed studies, special projects, and internship.

G. Any unique features such as interdepartmental cooperation:

The departmentally approved management electives and communication elective offer student-centered selection of coursework that fulfills competencies identified as vital within the profession. The official worksheet for the student will reflect the approved courses to meet these competencies. These competencies may be met by University Studies requirements.

## FORM PG

# PROGRAM CHARACTERISTICS AND PERFORMANCE GOALS

Institution Name: Central Missouri State University



**Program Name:** BS Crisis and Disaster Management

Date February 11, 2000

## Student Preparation

The goal of this program is to meet the needs of all students; traditional on campus students, transfer students, non-traditional students, working students, and experienced professionals. This can only be achieved with student-centered advisement at the departmental level. Advisement of students in an effort to address deficiencies as well as skill development needs to be individualized. Course enrollment needs to be matched to the student to enhance performance and demonstrate competency.

Articulation agreements will be developed for this program to facilitate transfer of students from 2-yr programs throughout the state. Prospective students will be encouraged to complete a 2-year program prior to admission.

Admission preference will be given to post baccalaureate students, senior level transfer students, and students with 2-yr degrees. There already exists a waiting population that meets these criteria that will easily saturate CMSU's delivery capacity.

## Faculty Characteristics

Assignment of faculty to teach in this program will be dependent on experience in the field of crisis and disaster management and at least one of the technical option areas. Academic teaching experience will be preferred over training experience. Distance education experience will be a definite requirement of new faculty. Professional Certification in one or more areas of specialization will be required for tenure-track appointments and a terminal degree will be preferred. Professional Certification will be required for continuing appointment of adjunct faculty.

Full-time faculty will be expected to perform academic advisement of undergraduate students. Additionally full-time faculty will be expected to supervise, evaluate, and collaborate with adjunct faculty in the delivery of courses in multiple locations. These non-traditional responsibilities will pose an extraordinary administrative demand relative to traditional full-time faculty; reducing the teaching load to 6-9 hours. Course development and distance education delivery will also be considered in assignment of teaching load.

There are currently two faculty in the department that are qualified to teach some of the courses on this program. One of these professors is currently teaching multiple sections of courses required on this program and it is expected that this would continue. Without the recruitment and hiring of new full-time faculty more than 50% of credit hours will be generated by adjunct faculty.

It is expected that faculty in this program will be active professionally in the field of crisis and disaster management as demonstrated by attendance at state and national conferences, presentations at conferences, and publication in journals and magazines. Additionally faculty will be expected to participate in training exercises and drills, and be involved in the emergency services community. Faculty will also be expected to supervise internships and field experiences, recruit and advise students, and support student organization activities.

## Enrollment Projections



Year	1	2	3	4	5
Full-Time (30 hours/year)	15	25	35	40	50
Part-time (15 hours/year)	30	60	90	120	150
Total #students	45	85	125	160	200
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#### Student and Program Outcomes

The first students will graduate in May 2002 those that declare this major immediately subsequent to approval. Academic year 2002-03 should produce 50 graduates and this number should double to 100 graduates during 2004-05. All graduates of this program will also have a minor area of study or a second major, thus for every major degree awarded there will also be a minor awarded. The Department of Safety Science and Technology includes three minor programs that are expected to grow proportionately with the Crisis and Disaster Management program.

Certified faculty will set an example and expectation of professional certification resulting in 25% of students obtaining certification in a field of specialization within two years of graduation. Five years after graduation 75% of graduates should have obtained at least one professional certification. There are no nationally normed exams in this field other than certification exams.

Placement rates for graduates in this program will be very high (80% at the time of graduation) since many of the students will already be employed and have experience in this discipline. Practicum requirements will also provide students experience and contacts for employment. Because of the interdisciplinary nature of this program graduates may be employed in a variety of positions yet still apply the knowledge gained in this degree program. Students may pursue employment opportunities related to their minor area of study.

Since there are many graduate and advance degree programs available through distance education, it is expected that 25% of graduate will be working on a graduate degree program within three years of graduation.

#### Program Accreditation

The only accreditation body that has expressed an interest in accrediting Emergency Management related degree programs is the International Fire Science Accreditation Congress. The Crisis and Disaster Management degree program will request an accreditation review during the third year of delivery.

## Alumni and Employer Survey

At the end of every academic year alumni will be surveyed regarding program satisfaction, professional development, and employment. Although 100% satisfaction is desirable, 90% of graduates should be satisfied with the program curriculum and delivery. Employers identified through the alumni survey will also be surveyed regarding their satisfaction with degree graduates and their educational preparation. Within several years it will be difficult to distinguish between employers and alumni, since many of the initial graduates of the program will eventually be interning and hiring graduates.

## References

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