# FIRE AND EMERGENCY SCIENCES

## **Program Information**

The Master of Science in Fire and Emergency Sciences degree program focuses on Emergency Services/Disaster Management (ES/DM) and is designed for individuals who are seeking knowledge in emergency planning, hazard mitigation and preparedness, disaster response and recovery, and homeland security. The goal is to create broad experience that includes the many elements of current cases in ES/DM and emphasizes both the critical thinking and leadership skills necessary to advance in the field.

The M.S.F.E.S. degree provides post-professional advancement for the critical technical issues beyond the initial emergency science practices and administrative studies. Major research topics include interdisciplinary studies in material sciences, supression systems, advanced planning and geographic systems, pre- and post-disaster mitigation planning, computer applications, and technological innovations.

The M.S.F.E.S. is an online distance education program. All courses are conveniently delivered utilizing a web-based e-Learning system. Students must complete 33 credits/11 FES classes in order to fulfill the degree requirements. The classes are selected with the FES Academic Advisor.

For more information, please see the program website: https://dcp.ufl.edu/rinker/academics/online/master-of-fire-and-emergency-sciences/.

#### **Degrees Offered**

## Degrees Offered with a Major in Fire and Emergency Sciences

• Master of Science in Fire and Emergency Sciences

Requirements for these degrees are given in the Graduate Degrees (http://gradcatalog.ufl.edu/graduate/degrees/) section of this catalog.

#### Courses

## **Construction Management Departmental Courses**

Code	Title	Credits
BCN 5470	Construction Methods Improvements	3
BCN 5618C	Comprehensive Estimating	3
BCN 5625	Construction Cost Analysis	3
BCN 5705C	Project Management for Construction	3
BCN 5722	Advanced Construction Planning and Control	3
BCN 5729	Design-Build Delivery Methods	3
BCN 5737	Advanced Issues in Construction Safety and Health	3
BCN 5776	International Construction Business Management	3
BCN 5778	Facilities Operation and Maintenance	3
BCN 5789C	Construction Project Delivery	3
BCN 5874	Equipment and Methods for Heavy Construction	3

BCN 5885	Methods and Management for Heavy	3
	Construction	
BCN 5905	Special Studies in Construction	1-5
BCN 5949	Graduate Construction Management Internship	1-3
BCN 5957	Advanced International Studies in Construction	1-4
BCN 6036	Research Methods in Construction	3
BCN 6558C	Building Integrated Renewable Energy Systems	3
BCN 6580	High-Performance Green Building Delivery Systems	3
BCN 6583	Sustainable Housing	3
BCN 6584C	Building Energy Modeling	3
BCN 6585	Sustainable Construction	3
BCN 6586	Construction Ecology and Metabolism	3
BCN 6641	Construction Value Engineering	3
BCN 6748	Construction Law	3
BCN 6785	Construction Information Systems	3
BCN 6905	Directed Independent Study in Construction	1-3
BCN 6933	Advanced Construction Management	1-5
BCN 6940	Supervised Teaching	1-3
BCN 6971	Research for Master's Thesis	1-15
FES 6705	Communications in Emergency Management	3
FES 6724	Fire and Emergency Services Response Planning	3
FES 6726	Hazard Mitigation and Preparedness	3
FES 6735	International Emergency/Disaster	3
	Management	
FES 6736	Homeland Security and Emergency Management	3
FES 6786	Research Methods in FES	3
FES 6806	Disaster Response and Recovery	3
FES 6826	Emergency Services - Disaster Planning	3
FES 6827	Business Continuity and Disaster Planning	3
FES 6836	Impacts of Natural and Man-made Disasters on Buildings	3
FES 6916	Research for Master's Report	3
FES 6940	Practicum in FES	1-3
FES 6971	Research for Master's Thesis	1-6
ICM 5905	Special Studies	1-3
ICM 6420	Commercial Management and Cost Control	3
ICM 6440	Construction Value Management	3
ICM 6680	Principles of International Sustainable	3
	Construction	
ICM 6682	Construction Ecology and Metabolism	3
ICM 6684	High-Performance Green Building Delivery Systems	3
ICM 6710	Construction Human Resource Management	3
ICM 6716	Construction Productivity and Methods Improvement	3
ICM 6750	Managing Construction Information Technology	3
ICM 6761	Advanced Planning, Scheduling, and Logistics	3
ICM 6762	Construction Risk Management	3
ICM 6770	Advanced Project Safety Management	3
ICM 6775	Manufactured Construction Processes	3
ICM 6905	Directed Independent Study in International	1-3
	Construction	
ICM 6910	Supervised Research	1-3

ICM 6930	Construction Communication and Research	3
ICM 6934	International Construction Research	1-6

## College of Design, Construction, and Planning Courses

Code	Title	Credits
DCP 6205	Ecological Issues in Sustainability and the Built Environment	3
DCP 6212	Sustainable Design Issues: Ecology, Architecture, and Planning	4
DCP 6217C	WELL Building Strategies (WELL Practicum)	6
DCP 6218	Developing Sustainable Projects	3
DCP 6221	Economics of Sustainability in the Built Environment	3
DCP 6230	Integrated Sustainable Development Practicum	6
DCP 6231C	Green Building Strategies	6
DCP 6301	Sustainable Planning and Design Studio	6
DCP 6701	World Heritage Research and Stewardship	3
DCP 6710	History and Theory of Historic Preservation	3
DCP 6711C	Built Heritage: History and Materials Conservation I	3
DCP 6712C	Built Heritage: History and Materials Conservation II	3
DCP 6714C	Built Heritage Documentation I	3
DCP 6715	Built Heritage Documentation II	3
DCP 6716	Cultural Resource Management	3
DCP 6718	Current Topics in Historic Preservation	3
DCP 6730	Preservation Policy	3
DCP 6905	Independent Study	1-3
DCP 6931	Special Topics in Design, Construction, and Planning	1-4
DCP 6943	Cultural Resource Survey	3
DCP 6971	Research for Master's Thesis	1-9
DCP 6979	Master's Research Project	1-6
DCP 7790	Doctoral Core 1: Paradigms and Theories of Inquiry	3
DCP 7794	Doctoral Core 4: Research Assessment and Professional Preparation	1
DCP 7911	Doctoral Core 2: Foundations of Research Design and Methodologies	3
DCP 7940	Supervised Teaching	1-3
DCP 7949	Professional Internship	1-5
DCP 7979	Advanced Research	1-12
DCP 7980	Research for Doctoral Dissertation	1-15
DCP 7981	Doctoral Core 3: Academic Writing for Publication	3

#### **Student Learning Outcomes**

## Fire & Emergency Services (MSFES)

SLO 1 Assess complex communication technology systems, both current and emerging, for disaster management 80% of the students earn an 80% or higher

SLO 2 Manage the application of safety, health, and environmental regulations relevant to disaster management 80% of the students earn an 80% or higher

SLO 3 Assess leadership skills for disaster management

80% of students earn an 80% or higher

SLO 4 Organize human resources for disaster situation 80% of the students earn an 80% or higher

SLO 5 Formulate effective organizational management skills associated with disaster management

80% of the students earn an 80% or higher

SLO 6 Create verbal and written communication as it relates to disaster management

80% of the students earn an 80% or higher

#### **Faculty**

### **Professor**

- · Anumba, Chinemelu J.
- · Castelblanco Bolivar, Gabriel Ernesto
- · Flood, Ian
- · Minchin, Robert E.
- · Ries. Robert
- · Srinivasan, Ravi Shankar

## Associate Professor

- · Costin, Aaron M.
- · Franz, Bryan Willam
- Gheisari, Masoud
- · Liu, Rui
- · Muszynski, Larry C.
- · Von Meding, Jason Kyle

### Assistant Professor

- · Agapaki, Evangelia
- · Watson, Maria Katherine

## **Distinguished Professor**

· Issa, Raja Raymond

### Senior Lecturer

- · Armaghani, Bahar A.
- · Sullivan, James G.

## **Affiliated Faculty**

- Alwisy, Aladdin Assistant Professor
- Cox, Robert Francis Professor
- Idris Jeelani, Fnu Assistant Professor
- Wang, Chaofeng Assistant Professor
- Wong, Vivian Wen Hui Assistant Professor