

MEMORANDUM TO: Ogden College of Science and Engineering Curriculum Committee

Dr. Katie Algeo
Dr. Taha Alyousef
Dr. Doug Harper
Dr. Phil Lienesch
Dr. Jeremy Maddox

Dr. Michelle Jackson
Dr. Andy Mienaltowski
Dr. Les Pesterfield
Dr. Todd Willian

FROM: Kenneth Crawford, Chair

SUBJECT: Agenda for Thursday, September 6, 2018 4:00 p.m. in OCH 1022

A. OLD BUSINESS:

- I. Consideration of the minutes of the May 3, 2018 meeting.

B. NEW BUSINESS:

Type of item	Description of Item & Contact Information
Consent	Proposal to Revise Course Prerequisites/Corequisites GISC 316, Fundamentals of GIS, 4 hrs. Contact: Kevin Cary, kevin.cary@wku.edu , 2981
Action	Proposal to Create a New Course EMDS 400, Emergency Management Policy and Practices, 3 hrs. Contact: David Oliver, david.oliver@wku.edu , x4181
Action	Proposal to Create a New Course EMDS 401, Natural and Technological Disaster Risks, 3 hrs. Contact: David Oliver, david.oliver@wku.edu , x4181
Action	Proposal to Create a New Course EMDS 402, Terrorism, Violence, Resiliency, and Response, 3 hrs. Contact: David Oliver, david.oliver@wku.edu , x4181
Action	Proposal to Create a New Course EMDS 4403, Advanced Disaster Planning, Management, and Preparedness, 3 hrs. Contact: David Oliver, david.oliver@wku.edu , x4181
Action	Proposal to Create a New Course EMDS 404, Trends in Disaster Preparedness and Management, 3 hrs. Contact: David Oliver, david.oliver@wku.edu , x4181

C. OTHER BUSINESS

- I. Selection of OCSE representative on the UCC.

Minutes – OCSE Curriculum Committee

May 3, 2018

Members Present:

Dr. Katie Algeo
Dr. Melanie Autin
Dr. Dough Harper
Dr. Phil Lienesch
Dr. Jeremy Maddox

Dr. Andy Mienaltowski
Dr. Les Pesterfield
Dr. Huanjing Wang
Dr. Todd Willian

FROM: Ken Crawford, Chair

The meeting was called to order at 4:00pm.

OLD BUSINESS:

Pesterfield/Autin moved to approve of the minutes of the April 5, 2018 meeting. Motion passed.

NEW BUSINESS:

Consent Agenda

Pesterfield/Autin moved to approve the consent agenda. Motion passed.

Action Agenda

School of Engineering & Applied Sciences

Willian/Algeo moved to approve the Proposal Revise a Program: Ref. 537, Electrical Engineering. Motion passed with friendly amendment.

Autin/Lienesch moved to approve the Proposal to Revise a Program: Ref. 575, Technology Management. Motion passed.

OTHER BUSINESS:

None

August 22, 2018

Ogden College of Science and Engineering
Department of Geography & Geology
Proposal to Revise Course Prerequisites/Corequisites
(Consent Item)

Contact Person: **Kevin B. Cary, M.Sc., GISP** e-mail: kevin.cary@wku.edu Phone: 5-2981

1. **Identification of course:**
 - 1.1 Course prefix (subject area) and number: GISC 316
 - 1.2 Course title: *Fundamentals of GIS*
 - 1.3 Credit hours: 4
2. **Current prerequisites requirements:** GEOG 103, OR GEOL 103, AND GEOG 110, or permission of the instructor.
3. **Proposed prerequisites/corequisites requirements:** None.
4. **Rationale for the revision of prerequisites/corequisites/special requirements:** GISC 316 is the gateway GIS course and serves majors from across the institution. Students receive all the necessary preparation to succeed in the course as part of the curriculum.
5. **Effect on completion of major/minor sequence:** No change. GISC 316 is required for GIScience majors, GIS minors, and GIS Certificate.
6. **Proposed term for implementation:** First available.
7. **Dates of prior committee approvals:**

Department/Division: *Fred D. Swann* AUG 23 2018

Curriculum Committee _____

General Education Committee (if applicable) _____

Undergraduate Curriculum Committee _____

University Senate _____

Proposal Date: August 6, 2018

**Ogden College of Science and Engineering
Deans Office
Proposal to Create a New Course
(Action Item)**

Contact Person: Dr. David E. Oliver david.oliver@wku.edu 270-745-4181

1. Identification of proposed course:

- 1.1 Course prefix (subject area) and number: **EMDS 400**
- 1.2 Course title: Emergency Management Policy and Practices
- 1.3 Abbreviated course title: EM Policy and Practices

- 1.4 Credit hours: 3.0 Variable credit (yes or no) No
- 1.5 Grade type: Standard Letter Grade
- 1.6 Prerequisites/co-requisites: None
- 1.7 Course description:

The course provides an in-depth look at the history of disaster response and emergency management both within the U.S. and globally. The student will develop a thorough working knowledge of The Incident Command System, and integration of incident management across local, state, federal and international response agencies.

2. Rationale:

- 2.1 Reason for developing the proposed course:

This course is being developed as a critical component of an under graduate level certificate program in Emergency Management Disaster Science. There is a demonstrated need to provide an advanced technical preparedness and management curriculum that will enhance the abilities of graduates to properly apply principals of emergency management in all phases of disaster preparedness and response. This course is the foundation upon which the balance of the core components of the certificate program will reside.

- 2.2 Projected enrollment in the proposed course:

The projected initial enrollment would be 12-15 students.

- 2.3 Relationship of the proposed course to courses now offered by the department:

While the proposed course may serve as an elective for the Homeland Security program, there is not a direct relationship with any current courses.

2.4 Relationship of the proposed course to courses offered in other departments:

There is not a direct relationship to any existing courses in other departments.

2.5 Relationship of the proposed course to courses offered in other institutions:

There are other programs that offer similar focus area including ones offered by Eastern Kentucky University. However, the courses reviewed are presented from a program management approach, this course as well as the other courses in the proposed certificate program are designed from a science and engineering prospective, resulting in the development of an advanced emergency management acumen, presented from a technical process prospective.

3. Discussion of proposed course:

3.1 Schedule type:

Cohort Hybrid Format. Initially course would be offered once per year in the fall semester. With increased demand additional offerings may be warranted.

3.2 Learning Outcomes:

Upon successful completion of this course, the student will

- Describe the historical evolution of incident management on a global scale from World War I to present.
- Demonstrate the ability to effectively apply the Incident Command System (ICS) to a variety of situations including events planning and incident response.
- Explain the function and application of each ICS position including command staff, general staff, branch, division, group, taskforce, strike team, and unit.
- Relate the prescribed escalation of command from local, state, federal as defined in the National Incident Management System (NIMS) and National Response Framework.
- Construct a strategic plan designed to facilitate the development of effective partnerships among critical response partners.
- Apply the Five-Phases of Emergency Management to a prescribed scenario involving a specific location and hazard category.

3.3 Content outline:

A: Introduction to Emergency Management

B: Evolution of Emergency Management Practice from a Global Prospective

C: Incident Command System

- Introduction to the Incident Command System
- Incident Command System for Single Resources and Initial Action Incidents
- Intermediate Incident Command System for Expanding Incidents
- Advanced Incident Command System for Command and General Staff
- National Incident Management System (NIMS) an Introduction
- National Response Framework

D: Establishing Critical Resource Partnerships in Emergency Management

E: Application of the Five Phases of Emergency Management

3.4 Student expectations and requirements:

Students admitted to the program must demonstrate an ability to successfully function in a team environment, coupled with strong analytical skills, and a willingness to partner with other students from a variety of academic and professional backgrounds to focus on development of sound strategic goals and tactical implementation plans to resolve complex issues related to disaster management.

Students must meet all university admission requirements

3.5 Tentative texts and course materials:

FEMA Emergency Management Institute (EMI) ICS Curriculum

Introduction to Emergency Management (Sixth Edition) 2017

Author(s): George Haddow, Jane Bullock and Damon P. Coppola

ISBN: 978-0-12-803064-6

4. Resources:

- 4.1 Library resources: Online reference resources
- 4.2 Computer resources: PC or Mac Based Notebook or Tablet

5. Budget implications:

5.1 Proposed method of staffing:

Initial course development will leverage existing full time or adjunct faculty and/or staff utilizing stipends to compensate for course development time above regularly assigned course/work load. Adjunct faculty will be selected and assigned in compliance with current Academic Affairs and Ogden College of Science and Engineering Policies.

At the point that course registration numbers reach a sustained level 15 students, a full time faculty position may be needed to adequately support and grow this critically important program of study.

5.2 Special equipment needed: None

5.3 Expendable materials needed: Copy costs for essential course materials.

5.4 Laboratory materials needed: None

6. Proposed term for implementation:

Proposed 1st Cohort delivery in Fall 2018

7. Dates of prior committee approvals:

Ogden College Dean's Office

N/A

Ogden College Curriculum Committee

Professional Education Council (if applicable)

N/A

General Education Committee (if applicable)

N/A

Undergraduate Curriculum Committee

University Senate

Proposal Date: August 6, 2018

Ogden College of Science and Engineering
Deans Office
Proposal to Create a New Course
(Action Item)

Contact Person: Dr. David E. Oliver david.oliver@wku.edu 270-745-4181

1. Identification of proposed course:

- 1.1 Course prefix (subject area) and number: **EMDS 401**
- 1.2 Course title: Understanding Natural and Technological Disaster Risks
- 1.3 Abbreviated course title: Natural and Tech Disaster Risks

- 1.4 Credit hours: 3.0 Variable credit (yes or no) No
- 1.5 Grade type: Standard Letter Grade
- 1.6 Prerequisites/co-requisites: None
- 1.7 Course description:

The course delves into the technical aspects of planning for and responding to Natural and Technological Hazards through the lens of knowledge leaders across the applicable science and engineering disciplines.

2. Rationale:

- 2.1 Reason for developing the proposed course:

This course is being developed as a critical component of an undergraduate level certificate program in Emergency Management Disaster Science. There is a demonstrated need to provide an advanced technical preparedness and management curriculum that will enhance the abilities of students to properly apply principals of emergency management in all phases of disaster preparedness and response. This course focuses on the most common natural disasters, and technological hazard types that have historically cause the greatest loss of life and property, as well as disruption of critical infrastructure.

- 2.2 Projected enrollment in the proposed course:

The projected initial enrollment would be 12-15 students.

- 2.3 Relationship of the proposed course to courses now offered by the department:

None

- 2.4 Relationship of the proposed course to courses offered in other departments:

There is not a direct relationship to any existing courses in other departments.

2.5 Relationship of the proposed course to courses offered in other institutions:

There are other programs that offer similar focus area including ones offered by Eastern Kentucky University. However, the courses reviewed are presented from a program management approach, this course as well as the other courses in the proposed certificate program are designed from a science and engineering prospective, resulting in the development of an advanced emergency management acumen, presented from a technical process prospective.

3. Discussion of proposed course:

3.1 Schedule type:

Initially course would be offered once per year in the fall semester. With increased demand additional offerings may be warranted.

3.2 Learning Outcomes:

Upon successful completion of this course, the student will

- Analyze historical accounts of significant natural and technological disasters on a global basis, to gain insight as to the aftermath impacts on modern emergency management practices.
- Describe potential impacts of naturally occurring events including meteorological and geological phenomenon on people, critical infrastructure, and the environment.
- Examine and correctly interpret leading indicative data regarding potential risks of events, probability of occurrence, and predictability of timing, scope, etc. to formulate prevention and mitigation strategies.
- Evaluate and correctly document resource needs for a prescribed incident type and scope, using FEMA Incident Management process.
- Actively collaborate in a group environment to develop a comprehensive hazard assessment and response pre-plan for a randomly selected event and location utilizing basic and advanced data collection resources and methods.

3.3 Content outline:

A: Historical review of major global disasters and their impacts.

B: Natural Hazards Study

- Hurricanes, Cyclones, and Typhoons
- Thunderstorms, Lightning and Tornados
- Flooding
- Intense Heat, Drought
- Winter Weather-Snow, Ice, Extreme Cold
- Volcanos, Earthquakes, and Subsidence

C: Exploration of Primary Technological Hazards

- Fires – Structural
- Fires – Transportation (Airplanes, Ships, Commercial Vehicles)
- Fires – Woodland, Brush
- Hazardous Materials Incidents
- Structural Failures / Collapse
- Major Industrial Incidents
- Aircraft Emergencies and Crashes
- Maritime Disasters

D: Technical Application of Risk Assessment Tools

E: Developing Effective Target Hazard Plan Elements

3.4 Student expectations and requirements:

Students admitted to the program must demonstrate an ability to successfully function in a team environment, coupled with strong analytical skills, and a willingness to partner with other students from a variety of academic and professional backgrounds to focus on development of sound strategic goals and tactical implementation plans to resolve complex issues related to disaster management.

Students must meet all university admission requirements

3.5 Tentative texts and course materials:

FEMA Emergency Management Institute (EMI) ICS Curriculum

FEMA Risk Assessment Applications

Hazard Mitigation and Preparedness: An Introductory Text for Emergency Management and Planning Professionals, Second Edition
Anna K. Schwab, Dylan Sandler, David J. Brower
ISBN 9781466595569

Quantitative Risk Assessment (QRA) for Natural Hazards
Edited by Nasim Uddin, Ph.D., P.E.; and Alfredo H. S. Ang, Ph.D.
ISBN (PDF): 978-0-7844-7637-6

4. Resources:

- 4.1 Library resources: Online reference resources
- 4.2 Computer resources: PC or Mac Based Notebook or Tablet

5. Budget implications:

- 5.1 Proposed method of staffing:

Initial course development will leverage existing full time or adjunct faculty and/or staff utilizing stipends to compensate for course development time above regularly assigned course/work load. Adjunct faculty will be selected and assigned in compliance with current Academic Affairs and Ogden College of Science and Engineering Policies.

At the point that course registration numbers reach a sustained level 15 students, a full time faculty position may be needed to adequately support and grow this critically important program of study.

- 5.2 Special equipment needed: None
- 5.3 Expendable materials needed: Copy costs for essential course materials.
- 5.4 Laboratory materials needed: None

6. Proposed term for implementation:

Proposed 1st Cohort delivery Fall 2019

7. Dates of prior committee approvals:

Ogden College Dean's Office

N/A

Ogden College Curriculum Committee

Professional Education Council (if applicable)

N/A

General Education Committee (if applicable)

N/A

Undergraduate Curriculum Committee

University Senate

Proposal Date: August 6, 2018

**Ogden College of Science and Engineering
Deans Office
Proposal to Create a New Course
(Action Item)**

Contact Person: Dr. David E. Oliver david.oliver@wku.edu 270-745-4181

1. Identification of proposed course:

- 1.1 Course prefix (subject area) and number: **EMDS 402**
- 1.2 Course title: Terrorism, Violence, Resiliency, and Response
- 1.3 Abbreviated course title: Terror-Violence, Resiliency and Response

- 1.4 Credit hours: 3.0 Variable credit (yes or no) No
- 1.5 Grade type: Standard Letter Grade
- 1.6 Prerequisites/co-requisites: None
- 1.7 Course description:

The course explores the complex and dynamic issues around acts of terror and extreme violence, and their impact on organizations and society as a whole. Students will gain insight into practical approaches to resiliency assessment including risk identification, impact analysis, as well as mitigation and prevention initiatives.

2. Rationale:

- 2.1 Reason for developing the proposed course:

This course is being developed as a critical component of an undergraduate level certificate program in Emergency Management Disaster Science. There is a demonstrated need to provide an advanced technical preparedness and management curriculum that will enhance the abilities of graduates to properly apply principals of emergency management in all phases of disaster preparedness and response. This course focuses on the most common natural disasters, and technological hazard types that have historically cause the greatest loss of life and property, as well as disruption of critical infrastructure.

- 2.2 Projected enrollment in the proposed course:

The projected initial enrollment would be 12-15 students.

- 2.3 Relationship of the proposed course to courses now offered by the department:

While the proposed course may serve as an elective for the Homeland Security program, there is not a direct relationship with any current courses.

2.4 Relationship of the proposed course to courses offered in other departments:

There is not a direct relationship to any existing courses in other departments.

2.5 Relationship of the proposed course to courses offered in other institutions:

There are other programs that offer similar focus area including ones offered by Eastern Kentucky University. However, the courses reviewed are presented from a program management approach, this course as well as the other courses in the proposed certificate program are designed from a science and engineering prospective, resulting in the development of an advanced emergency management acumen, presented from a technical process prospective.

3. Discussion of proposed course:

3.1 Schedule type:

Cohort Hybrid Format. Initially course would be offered once per year in the spring semester. With increased demand additional offerings may be warranted.

3.2 Learning Outcomes:

Upon successful completion of this course, the student will

- Research historical accounts of acts of terrorism and violence on a global basis, and assess direct impacts on life, infrastructure, and environment, as well as indirect impacts such as costs of mitigation efforts, effects on commerce, and impacts on ordinary citizens.
- Describe the motivational elements that promote a person(s) to plan and execute acts of terror and/or violence.
- Conceptualize the global evolution of modern day terrorism.
- Recognize the broad and ever changing dynamics of terror tactics and the broad spectrum of violence mechanisms available to terrorism actors, and their potential impacts.
- Explore advances in technologies and practices aimed at detecting potential terror actors and/or their mechanisms for perpetrating acts of terror.

3.3 Content outline:

A: Historical review of major acts of terrorism and violence.

B: Motivational factors involved in Terrorist Acts

C: Dynamic Evolution of Global Terrorism

C: Mechanisms of Terror Attacks

- Explosives
- Arson/Incendiary Devices
- Biological Agents
- Chemicals as Weapons
- Nuclear Threats
- Armed Attacks
- Kidnappings and Hostage Taking
- Hijacking/Skyjacking
- Use of Vehicles and Machinery in Attacks
- Agricultural Terrorism
- Cyber Attacks

D: Application of Science and Technology in Prevention of and Response to Acts of Terror

- Assessing Infrastructure Vulnerability
- Concepts of Passive Hardening
- Visual Monitoring and Alerting Systems
- Detection Systems for Explosives and Chemicals
- Protection of Large Public Events and Venues

E: Development and Application of Counter Terrorism Policies, Procedures, and Training for Governmental, Business, Industry, and the General Public.

3.4 Student expectations and requirements:

Students admitted to the cohort must demonstrate an ability to successfully function in a team environment, coupled with strong analytical skills, and a willingness to partner with other students from a variety of academic and professional backgrounds to focus on development of sound strategic goals and tactical implementation plans to resolve complex issues related to disaster management.

Students must meet all requirements for entrance requirements

3.5 Tentative texts and course materials:

The Science and Technology of Counterterrorism - 1st Edition
Author: Carl Young – 2014 Butterworth-Heinemann
Published Date: 12th March 2014
ISBN: 9780124200562

4. Resources:

4.1 Library resources: Online reference resources

4.2 Computer resources: PC or Mac Based Notebook or Tablet

5. Budget implications:

5.1 Proposed method of staffing:

Initial course development will leverage existing full time or adjunct faculty and/or staff utilizing stipends to compensate for course development time above regularly assigned course/work load. Adjunct faculty will be selected and assigned in compliance with current Academic Affairs and Ogden College of Science and Engineering Policies.

At the point that course registration numbers reach a sustained level 15 students, a full time faculty position may be needed to adequately support and grow this critically important program of study.

5.2 Special equipment needed: None

5.3 Expendable materials needed: Copy costs for essential course materials.

5.4 Laboratory materials needed: None

6. Proposed term for implementation:

Proposed 1st Cohort delivery Spring 2020

7. Dates of prior committee approvals:

Ogden College Dean's Office

N/A

Ogden College Curriculum Committee

Professional Education Council (if applicable)

N/A

General Education Committee (if applicable)

N/A

Undergraduate Curriculum Committee

University Senate

Proposal Date: August 6, 2018

**Ogden College of Science and Engineering
Deans Office
Proposal to Create a New Course
(Action Item)**

Contact Person: Dr. David E. Oliver david.oliver@wku.edu 270-745-4181

1. Identification of proposed course:

- 1.1 Course prefix (subject area) and number: **EMDS 403**
- 1.2 Course title: Advanced Disaster Planning, Management, and Preparedness
- 1.3 Abbreviated course title: Adv Disaster Planning and Mgt
- 1.4 Credit hours: 3.0 Variable credit (yes or no) No
- 1.5 Grade type: Standard Letter Grade
- 1.6 Prerequisites/co-requisites: None
- 1.7 Course description:

This course is designed as a Capstone for the Undergraduate Certificate Program in Emergency Management Disaster Science. The course will require students to apply key concepts learned to complete a series of emergency management plans spanning all phases of emergency management.

2. Rationale:

- 2.1 Reason for developing the proposed course:

This course is being developed as a critical component of an undergraduate level certificate program in Emergency Management Disaster Science. There is a demonstrated need to provide an advanced technical preparedness and management curriculum that will enhance the abilities of graduates to properly apply principals of emergency management in all phases of disaster preparedness and response. This course focuses proper application of emergency planning practices in development of specific plans, practices, procedures, and training to assure quality elements are in place in a comprehensive emergency management structure.

- 2.2 Projected enrollment in the proposed course:

The projected initial enrollment would be 12-15 students.

- 2.3 Relationship of the proposed course to courses now offered by the department:

None

2.4 Relationship of the proposed course to courses offered in other departments:

There is not a direct relationship to any existing courses in other departments.

2.5 Relationship of the proposed course to courses offered in other institutions:

There are other programs that offer similar focus area including ones offered by Eastern Kentucky University. However, the courses reviewed are presented from a program management approach, this course as well as the other courses in the proposed certificate program are designed from a science and engineering prospective, resulting in the development of an advanced emergency management acumen, presented from a technical process prospective.

3. Discussion of proposed course:

3.1 Schedule type:

Initially course would be offered once per year in the spring semester. With increased demand additional offerings may be warranted.

3.2 Learning Outcomes:

- Upon successful completion of this course, the student will
- Apply advanced technical tools and resources that are vital for the development of functional strategic plans for all Five Phases of Emergency Management: Prevention, Mitigation, Planning, Preparedness, Response, and Recovery.
- Demonstrate the ability to gather accurate data regarding potential hazards,
- Perform analysis to quantify the associated risks from potential hazards data
- Develop balanced, effective policy, procedures, plans, training methodologies, and communications to accomplish identified strategic goals.

3.3 Content outline:

A: Selection and Application of Risk Assessment Instruments

B: Critical Data Gathering and Analysis for Emergency Management Planning

Content outline(Cont):

C: Facility/Organizational Specific Planning

Developing Facility Emergency Plans

- Evacuation Planning and Execution
- Shelter in Place Plans
- Lockdown – Violence Response Plans
- Relocation / Reunification Planning
- Fire/Medical Response Plan Options
- Facility Continuity of Operations Planning

D: Municipal Emergency Planning

- Developing Emergency Management Plans
- Hazard Mitigation Planning Process
- Disaster Recovery/Continuity of Operations Plans

E: Developing a Comprehensive Emergency Management Training Program

F: Designing Effective Emergency Drills and Exercises

G: Post Incident / Exercise Debriefing and After Action Report Preparation

3.4 Student expectations and requirements:

Students admitted to the program must demonstrate an ability to successfully function in a team environment, coupled with strong analytical skills, and a willingness to partner with other students from a variety of academic and professional backgrounds to focus on development of sound strategic goals and tactical implementation plans to resolve complex issues related to disaster management.

Students must meet all university entrance requirements.

3.5 Tentative texts and course materials:

Crisis Management and Emergency Planning: Preparing for Today's Challenges
Michael J. Fagel, Ph.D. CEM - ISBN 9781466555051
December 4, 2013 by CRC Press

4. Resources:

- 4.1 Library resources: Online reference resources
- 4.2 Computer resources: PC or Mac Based Notebook or Tablet

5. Budget implications:

- 5.1 Proposed method of staffing:

Initial course development will leverage existing full time or adjunct faculty and/or staff utilizing stipends to compensate for course development time above regularly assigned course/work load. Adjunct faculty will be selected and assigned in compliance with current Academic Affairs and Ogden College of Science and Engineering Policies.

At the point that course registration numbers reach a sustained level 15 students, a full time faculty position may be needed to adequately support and grow this critically important program of study.

- 5.2 Special equipment needed: None
- 5.3 Expendable materials needed: Copy costs for essential course materials.
- 5.4 Laboratory materials needed: None

6. Proposed term for implementation:

Proposed 1st Cohort delivery Spring 2020

7. Dates of prior committee approvals:

Ogden College Dean's Office	<u>N/A</u> _____
Ogden College Curriculum Committee	_____
Professional Education Council (if applicable)	<u>N/A</u> _____
General Education Committee (if applicable)	<u>N/A</u> _____
Undergraduate Curriculum Committee	_____
University Senate	_____

Proposal Date: August 6, 2018

**Ogden College of Science and Engineering
Ogden Deans Office
Proposal to Create a New Course
(Action Item)**

Contact Person: Dr. David E. Oliver david.oliver@wku.edu 270-745-4181

1. Identification of proposed course:

- 1.1 Course prefix (subject area) and number: **EMDS 404**
- 1.2 Course title: Seminar: Trends in Disaster Preparedness and Management
- 1.3 Abbreviated course title: Trends in Disaster Preparedness
- 1.4 Credit hours: 3.0 Variable credit (yes or no) No
- 1.5 Grade type: Standard Letter Grade
- 1.6 Prerequisites/co-requisites: None
- 1.7 Course description:

This course is designed to engage Emergency Management Professionals in guided discussions framed on focused individual and group research into the dynamic elements that comprise emergency management in today's world.

2. Rationale:

- 2.1 Reason for developing the proposed course:

This course is being developed as a critical component of an undergraduate level certificate program in Emergency Management Disaster Science. There is a demonstrated need to provide an advanced technical preparedness and management curriculum that will enhance the abilities of students to properly apply principals of emergency management in all phases of disaster preparedness and response. This course focuses on recent events and current trends in preparedness and emergency management.

- 2.2 Projected enrollment in the proposed course:

The projected initial enrollment would be 10-12 students.

- 2.3 Relationship of the proposed course to courses now offered by the department:

None

- 2.4 Relationship of the proposed course to courses offered in other departments:

There is not a direct relationship to any existing courses in other departments.

2.5 Relationship of the proposed course to courses offered in other institutions:

There are other programs that offer similar focus area including ones offered by Eastern Kentucky University. However, the courses reviewed are presented from a program management approach, this course as well as the other courses in the proposed certificate program are designed from a science and engineering prospective, resulting in the development of an advanced emergency management acumen, presented from a technical process prospective.

3. Discussion of proposed course:

3.1 Schedule type:

Cohort Hybrid Format. Initially course would be offered once per year in a summer session. With increased demand additional offerings may be warranted.

3.2 Learning Outcomes:

Upon successful completion of this course, the student will

- Demonstrate means and methods to gather germane data and conduct research focused on emerging issues in emergency management.
- Explore significant global events that involved natural and/or technological hazard components, and organize key lessons learned, and proposed methods for integration of findings into effective policy and/or procedures.
- Examine changing dynamics of terror related acts and the effects of preparedness and mitigation practices on the frequency and severity of outcomes.
- Analyze after action reports from significant global disasters, and develop application guides based on key considerations.

3.3 Content outline:

A: Introduction to Advanced Research Techniques and Resources

B: Natural Disaster Events Review and Discussion

C: Incidents Involving Technological Hazards Review and Discussion

D: Changing Dynamics of Terrorism with Focus on Recent Incidents and Projected Evolution

E: Identifying and Utilizing Key Resources through Engaged Partnerships

3.4 Student expectations and requirements:

Students admitted to the program must demonstrate an ability to successfully function in a team environment, coupled with strong analytical skills, and a willingness to partner with other students from a variety of academic and professional backgrounds to focus on development of sound strategic goals and tactical implementation plans to resolve complex issues related to disaster management.

Students must meet all university admission requirements

3.5 Tentative texts and course materials:

None

4. Resources:

4.1 Library resources: Online reference resources

4.2 Computer resources: PC or Mac Based Notebook or Tablet

5. Budget implications:

5.1 Proposed method of staffing:

Initial course development will leverage existing full time or adjunct faculty and/or staff utilizing stipends to compensate for course development time above regularly assigned course/work load. Adjunct faculty will be selected and assigned in compliance with current Academic Affairs and Ogden College of Science and Engineering Policies.

At the point that course registration numbers reach a sustained level 15 students, a full time faculty position may be needed to adequately support and grow this critically important program of study.

5.2 Special equipment needed: None

5.3 Expendable materials needed: Copy costs for essential course materials.

5.4 Laboratory materials needed: None

6. Proposed term for implementation:

Proposed 1st delivery Summer 2020

7. Dates of prior committee approvals:

Ogden College Dean's Office	<u>N/A</u> _____
Ogden College Curriculum Committee	_____
Professional Education Council (if applicable)	<u>N/A</u> _____
General Education Committee (if applicable)	<u>N/A</u> _____
Undergraduate Curriculum Committee	_____
University Senate	_____