

University Curriculum Committee

January 22, 2018

I. Call to Order – Meeting: 3:45 pm, WAB 227

II. Approval of December 4, 2018 Minutes

III. Old Business:

IV. New Business:

Merrall Price - Change in CPE and its effect on developmental/co-requisite courses and making changes to SUS-099C as well as MATH-099 to comply with CPE rules.

V. Curriculum Agenda

College of Health and Human Services	
Type of Item	Description
Consent	Delete a Course CD 440 Phonology and Language Disorders Contact: Leisa Hutchison, 745-2772, leisa.hutchison@wku.edu

Ogden College of Science and Engineering	
Type of item	Description of Item & Contact Information
Consent	Proposal to Revise Course Prerequisites/Corequisites AMS 490F, Senior Research for Technology Management, 3 hrs. Contact: Bryan Reaka, bryan.reaka@wku.edu , x57032
Consent	Proposal to Revise Course Prerequisites/Corequisites MATH 183, Introductory Statistics, 3 hrs. Contact: Leslie Plumlee, leslie.plumlee@wku.edu , x56210
Action	Proposal to Revise a Program Ref. 528, Major in Mathematics, 51 hrs. Contact: Tom Richmond, tom.richmond@wku.edu , x56219
Action	Proposal to Revise a Program Ref. 728, Major in Mathematics, 36-39 hrs. Contact: Tom Richmond, tom.richmond@wku.edu , x56219
Action	Proposal to Make Multiple Revision to a Course PSYS 413, Psychological Measurement, 3 hrs. Contact: Andy Mienaltowski, Andrew.mienaltowski@wku.edu , x52353
Action	Proposal to Create a New Course EMDS 400, Emergency Management Policy and Practices, 3 hrs. Contact: David Oliver, david.oliver@wku.edu , x54181

Action	Proposal to Create a New Course EMDS 401, Natural and Technological Disaster Risks, 3 hrs. Contact: David Oliver, david.oliver@wku.edu , x54181
Action	Proposal to Create a New Course EMDS 402, Resiliency in Response to Terrorism and Violence, 3 hrs. Contact: David Oliver, david.oliver@wku.edu , x54181
Action	Proposal to Create a New Course EMDS 403, Advanced Disaster Planning, Management, and Preparedness, 3 hrs. Contact: David Oliver, david.oliver@wku.edu , x54181
Action	Proposal to Create a New Course EMDS 404, Trends in Disaster Preparedness and Management, 3 hrs. Contact: David Oliver, david.oliver@wku.edu , x54181
Action	Proposal to Create a New Certificate Program Emergency Management Disaster Science, 15-18 hrs. Contact: David Oliver, david.oliver@wku.edu , x54181

Proposal Date: 10/26/18

**College of Health and Human Services
Department of Communication Sciences and Disorders
Proposal to Delete a Course
(Consent Item)**

Contact Person: Leisa Hutchison, 745-2772, leisa.hutchison@wku.edu

- 1. Identification of course:**
 - 1.1 Current course prefix and number: CD 440
 - 1.2 Course title: Phonology and Language Disorders

- 2. Rationale for the course deletion:** This course has not been offered in the department for over five years and the content is being currently taught in two separate courses: CD 483 Introduction to Disorders of Articulation and Phonology and CD 486 Language Disorders. This better addresses the depth of content in both areas.

- 3. Effect of course deletion on programs or other departments, if known:** No effect

- 4. Proposed term for implementation:** Summer 2019

- 5. Dates of prior committee approvals:**

Department Communication Sciences and Disorders
CHHS College Curriculum Committee
Undergraduate Curriculum Committee
University Senate

11/9/2018

December 5, 2018

**Ogden College of Science and Engineering
School of Engineering and Applied Sciences
Proposal to Revise Course Prerequisites/Corequisites
(Consent Item)**

Contact Person: Bryan Reaka, bryan.reaka@wku.edu, 270.745.7032

1. Identification of course:

- 1.3 Course prefix (subject area) and number: AMS 490F
- 1.4 Course title: Senior Research for Technology Management

2. Current prerequisites/corequisites:

- 1.1 Prerequisites: AMS 356 with a grade of "C" or better, AMS 390 with a grade of "C" or better, AMS 370 with a grade of "C" or better;
 - 1.1.1 Pre or co-requisites AMS 394

3. Proposed prerequisites/corequisites:

- 1.2 Prerequisites: AMS 356 with a grade of "C" or better, AMS 390 with a grade of "C" or better;
 - 1.2.1 Pre or co-requisites AMS 394

4. Rationale for the revision of prerequisites:

Due to clerical error this prerequisite was inappropriately sent through the process with AMS 370 as a prerequisite for the AMS 490F course. AMS 490F is a capstone experience for Technology management majors who do not take AMS 370 as part of their curriculum.

This change is to correct the previous error.

5. Effect on completion of major/minor sequence:

This will allow students to be able to continue on their appropriate matriculation through the Technology Management program.

6. Proposed term for implementation: Fall 2019

7. Dates of prior committee approvals:

School of Engineering and Applied Sciences	11-09-2018
Ogden College Curriculum Committee	12-06-2018
Undergraduate Curriculum Committee	_____
University Senate	_____

Proposal Date: 11/16/2018

**Ogden College of Science & Engineering
Department of Mathematics
Proposal to Revise Course Prerequisites/Corequisites
(Consent Item)**

Contact Person: Leslie Plumlee, leslie.plumlee@wku.edu, 270-745-6210

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: MATH 183
 - 1.2 Course title: Introductory Statistics
- 2. Current prerequisites/corequisites/special requirements:** Satisfactory score on Math ACT and MPE, or COMPASS or KYOTE; or DMA 096C with a grade of C or better
- 3. Proposed prerequisites/corequisites/special requirements:** Satisfactory score on Math ACT and MPE, or COMPASS or KYOTE; or any Colonnade Quantitative Reasoning MATH course with a grade of C or better.
- 4. Rationale for the revision of prerequisites/corequisites/special requirements:** DMA 096C will no longer be offered as of Fall 2019.
- 5. Effect on completion of major/minor sequence:** Not Applicable
- 6. Proposed term for implementation:** Fall 2019
- 7. Dates of prior committee approvals:**

Mathematics Department

11/16/2018

Ogden College Curriculum Committee

12/6/2018

Undergraduate Curriculum Committee

University Senate

Proposal to Revise a program: Major in Mathematics
Ogden College of Science & Engineering
Department/Unit: Mathematics

Section 1: Proponent Contact Information

1.1 Name/Title: Tom Richmond
1.2 Email address: tom.richmond@wku.edu
1.3 Phone # 745-6219

Section 2: Program Information

- 2.1 Classification of Instructional Program (CIP) reference number:** 528
- 2.2 Current Program title:** Major in Mathematics
- 2.3 Current total number of credits required in the program:** 51

Section 3: Proposed program revisions and rationales:

- 3.1 Adjust the computational requirement:** The old computational requirement could be met by CS 180 or CS 181. CS 181 is no longer offered and has been replaced by CS 221. We are updating the requirements to reflect this and adding STAT 330 as an option for the computational requirement.
- 3.2 Remove the supporting logic requirement of PHIL 215 or EE 180:** PHIL 215 has been restructured into a new course PHIL 214 which is less applicable to mathematics. These PHIL courses may not be offered regularly. Mathematics majors are receiving adequate logic from within the department. This change only impacts the extended major.

Section 4: Consultations: The adjustment of the computational requirement was developed in consultation with CS faculty. The deletion of the supporting course PHIL215/EE180 requirement was motivated by changes in PHIL course offerings and has been discussed with and approved by the department head from Philosophy and Religion and the director of the School of Engineering and Applied Sciences.

Section 5: Proposed term for implementation: Fall 2019

Section 6: Approval Flow Dates:

Department of Mathematics: November 16, 2018
Ogden College Curriculum Committee: December 6, 2018
Undergraduate Curriculum Committee:
University Senate:

7.1: Current BA in Mathematics

A major in mathematics provides a Bachelor of Arts degree and requires either a minimum of 36-39 semester hours for a general major with a minor or second major or a minimum of 51 semester hours for an extended major. Note: All mathematics courses listed as prerequisites for other mathematics courses must have been completed with a grade of “C” or better.

Students who wish to declare a 728 or 528 mathematics major will initially be designated as “seeking admission” until the following requirements have been satisfied:

- Complete MATH 136, MATH 137, and MATH 307 or MATH 310, with a grade of “C” or better in each course.
- Have an overall GPA of at least 2.4 in mathematics program courses (MATH 136 and above) completed prior to admission.

The general major (728) offers two options: (1) Non-teacher certifiable Major in Mathematics; (2) Major Certifiable for Teaching Secondary Level Mathematics.

The extended major (528) offers only the first option. Option 1 students in the general major (728) are required to satisfy a computational requirement by completing either one course chosen from CS 180, CS 181, PHYS 316, or PHYS 318, while those in the extended major (528) are required to satisfy a computational requirement by completing two courses chosen from CS 180, CS 181, MATH 371, PHYS 316, or PHYS 318. [If MATH 371 is selected for this requirement, it cannot also be used as an elective in the extended major (528).] Option 2 students are required to complete either CS 170 or CS 180.

Option 1: Non-Teacher Certifiable Major in Mathematics

(A) General Major (728): The student must complete a minimum of 39 hours of mathematics with a minor or second major giving a total of at least 59 hours (53 unduplicated) with the following requirements:

1. MATH 136, MATH 137, MATH 237, MATH 307, MATH 310, MATH 317, MATH 337, MATH 498.
2. Two courses from: MATH 405, MATH 406, MATH 415, MATH 417, MATH 423, MATH 431, MATH 435, MATH 439, MATH 450, MATH 470, MATH 473, MATH 482.
3. Six elective hours from: MATH 275 (up to 3 hours), STAT 301, MATH 305, MATH 315, MATH 323, MATH 331, MATH 370, MATH 371, MATH 382, MATH 398 (up to 3 hours), MATH 405, MATH 406, MATH 415, MATH 417, MATH 423, MATH 435, MATH 439, MATH 450, MATH 470, MATH 475 (up to 6 hours), MATH 482.
4. Students may take certain 500-level mathematics courses for undergraduate credit with the approval of the Dept. Head in place of courses listed in items 2 or 3.
5. Note: This major is not intended to prepare students adequately for graduate mathematics. Students intending to seek a graduate degree should pursue major 528.

(B) Extended Major (528):

To prepare for graduate study in mathematics, the student must complete a minimum of 51 hours of mathematics with the following requirements:

1. MATH 136, MATH 137, MATH 237, MATH 307, MATH 310, MATH 317, MATH 337, MATH 431, MATH 498.
2. Have a concentration in one of the following areas: B1, B2, or B3.
B1: Fundamentals of Analysis and Discrete Mathematics:

- i. MATH 417, MATH 439, MATH 450
- ii. Two courses from: MATH 315, MATH 323, MATH 415, MATH 423, MATH 473
- iii. Six additional elective hours from: MATH 275 (up to 3 hours), STAT 301, MATH 305, MATH 315, MATH 323, MATH 331, MATH 370, MATH 371 (provided MATH 371 was not used to satisfy the computational requirement), MATH 382, MATH 398 (up to 3 hours), MATH 405, MATH 406, MATH 409, MATH 415, MATH 423, MATH 435, MATH 470, MATH 473, MATH 475 (up to 6 hours), MATH 482.

B2: Fundamentals of Applied Mathematics

- i. MATH 331, MATH 370, MATH 382, MATH 405.
- ii. Two courses from: MATH 305, MATH 406, MATH 435, MATH 470, MATH 482
- iii. Three credit hours from MATH 275, STAT 301, MATH 305, MATH 315, MATH 323, MATH 371 (provided MATH 371 was not used to satisfy the computational requirement), MATH 398, MATH 406, MATH 409, MATH 415, MATH 417, MATH 423, MATH 435, MATH 439, MATH 450, MATH 470, MATH 473, MATH 475, MATH 482.

B3: Fundamentals of Mathematical Studies

- i. MATH 450
- ii. Two courses from: MATH 405, MATH 406, MATH 409, MATH 415, MATH 417, MATH 423, MATH 435, MATH 439, MATH 470, MATH 473, MATH 482.
- iii. Twelve additional elective hours from MATH 275 (up to 3 hours), STAT 301, MATH 305, MATH 315, MATH 323, MATH 331, MATH 370, MATH 371 (provided MATH 371 was not used to satisfy the computational requirement), MATH 382, MATH 398 (up to 3 hours), MATH 405, MATH 406, MATH 409, MATH 415, MATH 423, MATH 435, MATH 470, MATH 473, MATH 475 (up to 6 hours), MATH 482

3. Students may take certain 500-level mathematics courses for undergraduate credit in place of courses listed in items B1i, B1ii, B2i, B2ii, B3i, or B3ii with the approval of the mathematics department head. No minor or second major for the extended major is required.

4. — Also required is PHIL 215 or EE 180.

Option 2: Major Certifiable for Teaching Secondary Level Mathematics General Certifiable Major (reference number 728):

The student must complete a minimum of 36 hours of mathematics with a second major in Science and Mathematics Education (SMED) and with the following requirements:

1. MATH 136, MATH 137, MATH 237, MATH 304, MATH 307, MATH 310, MATH 317, MATH 323, MATH 498; STAT 301. Before the “professional semester,” the student must complete each of these courses with a grade of “C” or better and achieve a GPA of at least 2.5 in required mathematics courses.
2. At least 3 hours of 400-level mathematics from the following list: MATH 405, MATH 406, MATH 409, MATH 415, MATH 417, MATH 421, MATH 423, MATH 431, MATH 435, MATH 439, MATH 450, MATH 470, MATH 482.

Students in this option must have a second major in science and mathematics education (SMED). In addition, students must attain a grade of “C” or better in each required mathematics course and a 2.5 GPA for all required mathematics courses.

7.1: Proposed BA in Mathematics

A major in mathematics provides a Bachelor of Arts degree and requires either a minimum of 36-39 semester hours for a general major with a minor or second major or a minimum of 51 semester hours for an extended major. Note: All mathematics courses listed as prerequisites for other mathematics courses must have been completed with a grade of “C” or better.

Students who wish to declare a 728 or 528 mathematics major will initially be designated as “seeking admission” until the following requirements have been satisfied:

- Complete MATH 136, MATH 137, and MATH 307 or MATH 310, with a grade of “C” or better in each course.
- Have an overall GPA of at least 2.4 in mathematics program courses (MATH 136 and above) completed prior to admission.

The general major (728) offers two options: (1) Non-teacher certifiable Major in Mathematics; (2) Major Certifiable for Teaching Secondary Level Mathematics.

The extended major (528) offers only the first option. Option 1 students in the general major (728) are required to satisfy a computational requirement by completing one course chosen from CS 180, PHYS 316, or PHYS 318, while those in the extended major (528) are required to satisfy a computational requirement by completing two courses chosen from CS 180, CS 221, STAT 330, MATH 371, PHYS 316, or PHYS 318. [If MATH 371 is selected for this requirement, it cannot also be used as an elective in the extended major (528).] Option 2 students are required to complete either CS 170 or CS 180.

Option 1: Non-Teacher Certifiable Major in Mathematics

(A) General Major (728): The student must complete a minimum of 39 hours of mathematics with a minor or second major giving a total of at least 59 hours (53 unduplicated) with the following requirements:

1. MATH 136, MATH 137, MATH 237, MATH 307, MATH 310, MATH 317, MATH 337, MATH 498.
2. Two courses from: MATH 405, MATH 406, MATH 415, MATH 417, MATH 423, MATH 431, MATH 435, MATH 439, MATH 450, MATH 470, MATH 473, MATH 482.
3. Six elective hours from: MATH 275 (up to 3 hours), STAT 301, MATH 305, MATH 315, MATH 323, MATH 331, MATH 370, MATH 371, MATH 382, MATH 398 (up to 3 hours), MATH 405, MATH 406, MATH 415, MATH 417, MATH 423, MATH 435, MATH 439, MATH 450, MATH 470, MATH 475 (up to 6 hours), MATH 482.
4. Students may take certain 500-level mathematics courses for undergraduate credit with the approval of the Dept. Head in place of courses listed in items 2 or 3.
5. Note: This major is not intended to prepare students adequately for graduate mathematics. Students intending to seek a graduate degree should pursue major 528.

(B) Extended Major (528):

To prepare for graduate study in mathematics, the student must complete a minimum of 51 hours of mathematics with the following requirements:

1. MATH 136, MATH 137, MATH 237, MATH 307, MATH 310, MATH 317, MATH 337, MATH 431, MATH 498.
2. Have a concentration in one of the following areas: B1, B2, or B3.

B1: Fundamentals of Analysis and Discrete Mathematics:

- iv. MATH 417, MATH 439, MATH 450
- v. Two courses from: MATH 315, MATH 323, MATH 415, MATH 423, MATH 473
- vi. Six additional elective hours from: MATH 275 (up to 3 hours), STAT 301, MATH 305, MATH 315, MATH 323, MATH 331, MATH 370, MATH 371 (provided MATH 371 was not used to satisfy the computational requirement), MATH 382, MATH 398 (up to 3 hours), MATH 405, MATH 406, MATH 409, MATH 415, MATH 423, MATH 435, MATH 470, MATH 473, MATH 475 (up to 6 hours), MATH 482.

B2: Fundamentals of Applied Mathematics

- iv. MATH 331, MATH 370, MATH 382, MATH 405.
- v. Two courses from: MATH 305, MATH 406, MATH 435, MATH 470, MATH 482
- vi. Three credit hours from MATH 275, STAT 301, MATH 305, MATH 315, MATH 323, MATH 371 (provided MATH 371 was not used to satisfy the computational requirement), MATH 398, MATH 406, MATH 409, MATH 415, MATH 417, MATH 423, MATH 435, MATH 439, MATH 450, MATH 470, MATH 473, MATH 475, MATH 482.

B3: Fundamentals of Mathematical Studies

- iv. MATH 450
- v. Two courses from: MATH 405, MATH 406, MATH 409, MATH 415, MATH 417, MATH 423, MATH 435, MATH 439, MATH 470, MATH 473, MATH 482.
- vi. Twelve additional elective hours from MATH 275 (up to 3 hours), STAT 301, MATH 305, MATH 315, MATH 323, MATH 331, MATH 370, MATH 371 (provided MATH 371 was not used to satisfy the computational requirement), MATH 382, MATH 398 (up to 3 hours), MATH 405, MATH 406, MATH 409, MATH 415, MATH 423, MATH 435, MATH 470, MATH 473, MATH 475 (up to 6 hours), MATH 482

3. Students may take certain 500-level mathematics courses for undergraduate credit in place of courses listed in items B1i, B1ii, B2i, B2ii, B3i, or B3ii with the approval of the mathematics department head. No minor or second major for the extended major is required.

Option 2: Major Certifiable for Teaching Secondary Level Mathematics General Certifiable Major (reference number 728):

The student must complete a minimum of 36 hours of mathematics with a second major in Science and Mathematics Education (SMED) and with the following requirements:

1. MATH 136, MATH 137, MATH 237, MATH 304, MATH 307, MATH 310, MATH 317, MATH 323, MATH 498; STAT 301. Before the "professional semester," the student must complete each of these courses with a grade of "C" or better and achieve a GPA of at least 2.5 in required mathematics courses.
2. At least 3 hours of 400-level mathematics from the following list: MATH 405, MATH 406, MATH 409, MATH 415, MATH 417, MATH 421, MATH 423, MATH 431, MATH 435, MATH 439, MATH 450, MATH 470, MATH 482.

Students in this option must have a second major in science and mathematics education (SMED). In addition, students must attain a grade of "C" or better in each required mathematics course and a 2.5 GPA for all required mathematics courses.

Proposal to Revise a Program: Major in Mathematics
Ogden College
Department/Unit: Mathematics

Section 1: Proponent Contact Information

1.1 Name/Title: Tom Richmond
1.2 Email address: tom.richmond@wku.edu
1.3 Phone # 745-6219

Section 2: Program Information

2.4 Classification of Instructional Program (CIP) reference number: 728

2.5 Current Program title: Major in Mathematics

2.6 Current total number of credits required in the program: 36-39

Section 3: Proposed program revisions and rationales:

3.3 Adjust the computational requirement: The old computational requirement could be met by CS 180 or CS 181. CS 181 is no longer offered and has been replaced by CS 221. We are updating the requirements to reflect this.

Section 4: Consultations: The adjustment of the computational requirement was developed in consultation with CS faculty.

Section 5: Proposed term for implementation: Fall 2019.

Section 6: Approval Flow Dates:

Department of Mathematics:	November 16, 2018
Ogden College Curriculum Committee:	December 6, 2018
Undergraduate Curriculum Committee:	
University Senate:	

7.1: Current BA in Mathematics

A major in mathematics provides a Bachelor of Arts degree and requires either a minimum of 36-39 semester hours for a general major with a minor or second major or a minimum of 51 semester hours for an extended major. Note: All mathematics courses listed as prerequisites for other mathematics courses must have been completed with a grade of “C” or better.

Students who wish to declare a 728 or 528 mathematics major will initially be designated as “seeking admission” until the following requirements have been satisfied:

- Complete MATH 136, MATH 137, and MATH 307 or MATH 310, with a grade of “C” or better in each course.
- Have an overall GPA of at least 2.4 in mathematics program courses (MATH 136 and above) completed prior to admission.

The general major (728) offers two options: (1) Non-teacher certifiable Major in Mathematics; (2) Major Certifiable for Teaching Secondary Level Mathematics.

The extended major (528) offers only the first option. Option 1 students in the general major (728) are required to satisfy a computational requirement by completing either one course chosen from CS 180, CS 181, PHYS 316, or PHYS 318, while those in the extended major (528) are required to satisfy a computational requirement by completing two courses chosen from CS 180, CS 181, MATH 371, PHYS 316, or PHYS 318. [If MATH 371 is selected for this requirement, it cannot also be used as an elective in the extended major (528).] Option 2 students are required to complete either CS 170 or CS 180.

Option 1: Non-Teacher Certifiable Major in Mathematics

(A) General Major (728): The student must complete a minimum of 39 hours of mathematics with a minor or second major giving a total of at least 59 hours (53 unduplicated) with the following requirements:

6. MATH 136, MATH 137, MATH 237, MATH 307, MATH 310, MATH 317, MATH 337, MATH 498.
7. Two courses from: MATH 405, MATH 406, MATH 415, MATH 417, MATH 423, MATH 431, MATH 435, MATH 439, MATH 450, MATH 470, MATH 473, MATH 482.
8. Six elective hours from: MATH 275 (up to 3 hours), STAT 301, MATH 305, MATH 315, MATH 323, MATH 331, MATH 370, MATH 371, MATH 382, MATH 398 (up to 3 hours), MATH 405, MATH 406, MATH 415, MATH 417, MATH 423, MATH 435, MATH 439, MATH 450, MATH 470, MATH 475 (up to 6 hours), MATH 482.
9. Students may take certain 500-level mathematics courses for undergraduate credit with the approval of the Dept. Head in place of courses listed in items 2 or 3.
10. Note: This major is not intended to prepare students adequately for graduate mathematics. Students intending to seek a graduate degree should pursue major 528.

(B) Extended Major (528):

To prepare for graduate study in mathematics, the student must complete a minimum of 51 hours of mathematics with the following requirements:

5. MATH 136, MATH 137, MATH 237, MATH 307, MATH 310, MATH 317, MATH 337, MATH 431, MATH 498.
6. Have a concentration in one of the following areas: B1, B2, or B3.

B1: Fundamentals of Analysis and Discrete Mathematics:

- vii. MATH 417, MATH 439, MATH 450
- viii. Two courses from: MATH 315, MATH 323, MATH 415, MATH 423, MATH 473
- ix. Six additional elective hours from: MATH 275 (up to 3 hours), STAT 301, MATH 305, MATH 315, MATH 323, MATH 331, MATH 370, MATH 371 (provided MATH 371 was not used to satisfy the computational requirement), MATH 382, MATH 398 (up to 3 hours), MATH 405, MATH 406, MATH 409, MATH 415, MATH 423, MATH 435, MATH 470, MATH 473, MATH 475 (up to 6 hours), MATH 482.

B2: Fundamentals of Applied Mathematics

- vii. MATH 331, MATH 370, MATH 382, MATH 405.
- viii. Two courses from: MATH 305, MATH 406, MATH 435, MATH 470, MATH 482
- ix. Three credit hours from MATH 275, STAT 301, MATH 305, MATH 315, MATH 323, MATH 371 (provided MATH 371 was not used to satisfy the computational requirement), MATH 398, MATH 406, MATH 409, MATH 415, MATH 417, MATH 423, MATH 435, MATH 439, MATH 450, MATH 470, MATH 473, MATH 475, MATH 482.

B3: Fundamentals of Mathematical Studies

- vii. MATH 450
- viii. Two courses from: MATH 405, MATH 406, MATH 409, MATH 415, MATH 417, MATH 423, MATH 435, MATH 439, MATH 470, MATH 473, MATH 482.
- ix. Twelve additional elective hours from MATH 275 (up to 3 hours), STAT 301, MATH 305, MATH 315, MATH 323, MATH 331, MATH 370, MATH 371 (provided MATH 371 was not used to satisfy the computational requirement), MATH 382, MATH 398 (up to 3 hours), MATH 405, MATH 406, MATH 409, MATH 415, MATH 423, MATH 435, MATH 470, MATH 473, MATH 475 (up to 6 hours), MATH 482

7. Students may take certain 500-level mathematics courses for undergraduate credit in place of courses listed in items B1i, B1ii, B2i, B2ii, B3i, or B3ii with the approval of the mathematics department head. No minor or second major for the extended major is required.
8. Also required is PHIL 215 or EE 180.

Option 2: Major Certifiable for Teaching Secondary Level Mathematics General Certifiable Major (reference number 728):

The student must complete a minimum of 36 hours of mathematics with a second major in Science and Mathematics Education (SMED) and with the following requirements:

3. MATH 136, MATH 137, MATH 237, MATH 304, MATH 307, MATH 310, MATH 317, MATH 323, MATH 498; STAT 301. Before the "professional semester," the student must complete each of these courses with a grade of "C" or better and achieve a GPA of at least 2.5 in required mathematics courses.
4. At least 3 hours of 400-level mathematics from the following list: MATH 405, MATH 406, MATH 409, MATH 415, MATH 417, MATH 421, MATH 423, MATH 431, MATH 435, MATH 439, MATH 450, MATH 470, MATH 482.

Students in this option must have a second major in science and mathematics education (SMED). In addition, students must attain a grade of "C" or better in each required mathematics course and a 2.5 GPA for all required mathematics courses.

7.1: Proposed BA in Mathematics

A major in mathematics provides a Bachelor of Arts degree and requires either a minimum of 36-39 semester hours for a general major with a minor or second major or a minimum of 51 semester hours for an extended major. Note: All mathematics courses listed as prerequisites for other mathematics courses must have been completed with a grade of "C" or better.

Students who wish to declare a 728 or 528 mathematics major will initially be designated as "seeking admission" until the following requirements have been satisfied:

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Option 1: Non-Teacher Certifiable Major in Mathematics

(A) General Major (728): The student must complete a minimum of 39 hours of mathematics with a minor or second major giving a total of at least 59 hours (53 unduplicated) with the following requirements:

6. MATH 136, MATH 137, MATH 237, MATH 307, MATH 310, MATH 317, MATH 337, MATH 498.
7. Two courses from: MATH 405, MATH 406, MATH 415, MATH 417, MATH 423, MATH 431, MATH 435, MATH 439, MATH 450, MATH 470, MATH 473, MATH 482.
8. Six elective hours from: MATH 275 (up to 3 hours), STAT 301, MATH 305, MATH 315, MATH 323, MATH 331, MATH 370, MATH 371, MATH 382, MATH 398 (up to 3 hours), MATH 405, MATH 406, MATH 415, MATH 417, MATH 423, MATH 435, MATH 439, MATH 450, MATH 470, MATH 475 (up to 6 hours), MATH 482.
9. Students may take certain 500-level mathematics courses for undergraduate credit with the approval of the Dept. Head in place of courses listed in items 2 or 3.
10. Note: This major is not intended to prepare students adequately for graduate mathematics. Students intending to seek a graduate degree should pursue major 528.

(B) Extended Major (528):

To prepare for graduate study in mathematics, the student must complete a minimum of 51 hours of mathematics with the following requirements:

4. MATH 136, MATH 137, MATH 237, MATH 307, MATH 310, MATH 317, MATH 337, MATH 431, MATH 498.
5. Have a concentration in one of the following areas: B1, B2, or B3.

B1: Fundamentals of Analysis and Discrete Mathematics:

- x. MATH 417, MATH 439, MATH 450
- xi. Two courses from: MATH 315, MATH 323, MATH 415, MATH 423, MATH 473
- xii. Six additional elective hours from: MATH 275 (up to 3 hours), STAT 301, MATH 305, MATH 315, MATH 323, MATH 331, MATH 370, MATH 371 (provided MATH 371 was not used to satisfy the computational requirement), MATH 382, MATH 398 (up to 3 hours), MATH 405, MATH 406, MATH 409, MATH 415, MATH 423, MATH 435, MATH 470, MATH 473, MATH 475 (up to 6 hours), MATH 482.

B2: Fundamentals of Applied Mathematics

- x. MATH 331, MATH 370, MATH 382, MATH 405.
- xi. Two courses from: MATH 305, MATH 406, MATH 435, MATH 470, MATH 482
- xii. Three credit hours from MATH 275, STAT 301, MATH 305, MATH 315, MATH 323, MATH 371 (provided MATH 371 was not used to satisfy the computational requirement), MATH 398, MATH 406, MATH 409, MATH 415, MATH 417, MATH 423, MATH 435, MATH 439, MATH 450, MATH 470, MATH 473, MATH 475, MATH 482.

B3: Fundamentals of Mathematical Studies

- x. MATH 450
- xi. Two courses from: MATH 405, MATH 406, MATH 409, MATH 415, MATH 417, MATH 423, MATH 435, MATH 439, MATH 470, MATH 473, MATH 482.
- xii. Twelve additional elective hours from MATH 275 (up to 3 hours), STAT 301, MATH 305, MATH 315, MATH 323, MATH 331, MATH 370, MATH 371 (provided MATH 371 was not used to satisfy the computational requirement), MATH 382, MATH 398 (up to 3 hours), MATH 405, MATH 406, MATH 409, MATH 415, MATH 423, MATH 435, MATH 470, MATH 473, MATH 475 (up to 6 hours), MATH 482

6. Students may take certain 500-level mathematics courses for undergraduate credit in place of courses listed in items B1i, B1ii, B2i, B2ii, B3i, or B3ii with the approval of the mathematics department head. No minor or second major for the extended major is required.

Option 2: Major Certifiable for Teaching Secondary Level Mathematics General Certifiable Major (reference number 728):

The student must complete a minimum of 36 hours of mathematics with a second major in Science and Mathematics Education (SMED) and with the following requirements:

- 3. MATH 136, MATH 137, MATH 237, MATH 304, MATH 307, MATH 310, MATH 317, MATH 323, MATH 498; STAT 301. Before the "professional semester," the student must complete each of these courses with a grade of "C" or better and achieve a GPA of at least 2.5 in required mathematics courses.
- 4. At least 3 hours of 400-level mathematics from the following list: MATH 405, MATH 406, MATH 409, MATH 415, MATH 417, MATH 421, MATH 423, MATH 431, MATH 435, MATH 439, MATH 450, MATH 470, MATH 482.

Students in this option must have a second major in science and mathematics education (SMED). In addition, students must attain a grade of "C" or better in each required mathematics course and a 2.5 GPA for all required mathematics courses.

Proposal Date: November 2, 2018

**Ogden College of Science & Engineering
Psychological Sciences Department
Proposal to Make Multiple Revisions to a Course
(Action Item)**

Contact Person: Andy Mienaltowski, 5-2353, andrew.mienaltowski@wku.edu

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: **PSYS 413**
- 1.2 Course title: **Psychological Measurement**

2. Revise course title:

- 2.1 Current course title:
- 2.2 Proposed course title:
- 2.3 Proposed abbreviated title:
- 2.4 Rationale for revision of course title:

3. Revise course number:

- 3.1 Current course number:
- 3.2 Proposed course number:
- 3.3 Rationale for revision of course number:

4. Revise course prerequisites/corequisites/special requirements:

- 4.1 Current prerequisites/corequisites/special requirements: (indicate which)
- 4.2 Proposed prerequisites/corequisites/special requirements:
- 4.3 Rationale for revision of course prerequisites/corequisites/special requirements:
- 4.4 Effect on completion of major/minor sequence:

5. Revise course catalog listing:

- 5.1 Current course catalog listing: The consideration of methodological, theoretical, and ethical problems involved in test construction and use. Topics covered include reliability, validity, predictive efficiency, structure of human abilities, achievement tests, and projective techniques.
- 5.2 Proposed course catalog listing: **The consideration of methodological, theoretical, and ethical problems involved in test construction and use. Topics covered include reliability, validity, and measurement theory. Includes lab-based projects such as test construction and item analysis.**
- 5.3 Rationale for revision of course catalog listing: Class involves project-based learning in a lab environment. The new course catalog listing reflects this content.

6. Revise course credit hours:

- 6.1 Current course credit hours:
- 6.2 Proposed course credit hours:
- 6.3 Rationale for revision of course credit hours:

7. Revise schedule type:

- 7.1 Current schedule type: L (lecture)
- 7.2 Proposed schedule type: **C (lecture/lab)**
- 7.3 Rationale for revision of schedule type: The new schedule type better reflects that project-based nature of the course.

8. Revise grade type:

- 8.1 Current grade type:
- 8.2 Proposed grade type:
- 8.3 Rationale for revision of grade type:

10. Proposed term for implementation: Earliest possible

11. Dates of prior committee approvals:

Department of Psychological Sciences
Ogden College Curriculum Committee
Undergraduate Curriculum Committee
University Senate

November 2, 2018

December 6, 2018

Proposal Date: August 6, 2018

**Ogden College of Science and Engineering
Office of the Dean
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:

Provides an in-depth look at the history of disaster response and emergency management within the U.S. and globally. Focuses on the Incidental Command System and the 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 principles 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: None
- 2.4 Relationship of the proposed course to courses offered in other departments: None
- 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 developed using a program management approach; this course as well as the other courses in the proposed certificate program are designed from a science and engineering perspective, 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: Yes

4.2 Computer resources: Yes

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 2019

7. Dates of prior committee approvals:

Office of the Dean

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

August 23, 2018

November 30, 2018

Proposal Date: August 6, 2018

**Ogden College of Science and Engineering
Office of the Dean
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: Natural and Technological Disaster Risks
- 1.3 Abbreviated course title: Natural & 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: EMDS 400 or Permission of Instructor
- 1.7 Course description: Technical aspects of planning for and responding to natural and technological hazards across 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 caused 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: None
- 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 utilize a program management approach; this course as well as the other courses in the proposed certificate program are developed from a science and engineering perspective, resulting in the development of an advanced emergency management acumen, presented from a technical process perspective.

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 Tornadoes
- 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: Yes

4.2 Computer resources: Yes

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:

Office of the Dean

August 23, 2018

Ogden College Curriculum Committee

November 1, 2018

Undergraduate Curriculum Committee

University Senate

Proposal Date: August 6, 2018

**Ogden College of Science and Engineering
Office of the Dean
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: Resiliency in Response to Terrorism and Violence
- 1.3 Abbreviated course title: Resiliency in Response to Terrorism & Violence
- 1.4 Credit hours: 3.0 Variable credit (yes or no) No
- 1.5 Grade type: Standard Letter Grade
- 1.6 Prerequisites/co-requisites: EMDS 400 or Permission of Instructor
- 1.7 Course description:

Explores issues emerging from acts of terror and extreme violence, including the impact on organizations and society. Examines practical approaches to resiliency assessment including risk identification, prevention initiatives, impact analysis, response, and recovery planning.

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 complex and dynamic problems associated with acts of terrorism and violence and the potential impacts on people and 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: None
- 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 perspective, 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: Yes

4.2 Computer resources: Yes

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:

Office of the Dean

August 23, 2018

Ogden College Curriculum Committee

November 1, 2018

Undergraduate Curriculum Committee

University Senate

Proposal Date: August 6, 2018

**Ogden College of Science and Engineering
Office of the Dean
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: EMDS 401 and 402 or Permission of Instructor
- 1.7 Course description: Requires application of key concepts to complete 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: None
- 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 perspective, 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

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: Yes

4.2 Computer resources: Yes

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:

Office of the Dean

August 23, 2018

Ogden College Curriculum Committee

November 1, 2018

Undergraduate Curriculum Committee

University Senate

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

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

2. Identification of proposed course:

- 1.1 Course prefix (subject area) and number: **EMDS 404**
- 1.2 Course title: Trends in Disaster Preparedness and Management
- 1.3 Abbreviated course title: Trends in Disaster Prep
- 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:

Guided discussions of research into the elements that comprise current practices in 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 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 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: None
- 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, 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: Yes

4.2 Computer resources: Yes

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:

Office of the Dean

August 23, 2018

Ogden College Curriculum Committee

November 1, 2018

Undergraduate Curriculum Committee

University Senate

**Ogden College of Science and Engineering
Office of the Dean
Proposal to Create a New Certificate Program
(Action Item)**

Contact Person: Dr. David E. Oliver, Director EHS/Emergency Manager
David.Oliver@wku.edu (270) 745-4181

1. Identification of program:

- 1.1 Program title: Emergency Management Disaster Science
- 1.2 Required hours in program: 15-18
- 1.3 Special information: N-A
- 1.4 Catalog description:

The certificate provides students, whether traditional or working professionals, an in-depth acumen related to incident management, risk identification, emergency planning, and emergency management program evaluation.

The certificate consists of four core courses EMDS 400 – 403, and the choice of an additional elective course, EMDS 404, or six credit hours of upper division courses in applicable subject areas (Examples: Education Administration, Leadership, Engineering, Meteorology, etc with approval of program faculty) to complete the program.

- 1.5 Classification of Instructional Program Code (CIP): 43.0302 Crisis/Emergency/Disaster Management.

2. Learning outcomes of the proposed certificate program:

Upon completion of the program, students will:

- Possess an increased readiness as public or private sector leaders to more effectively plan for and respond to emergencies.
- Display a strong technical acumen regarding the risks posed to people, infrastructure, and the environment from natural, technological, and people-caused disasters.
- Possess a strong skill set in modern emergency management that can stand alone or be combined with their chosen academic and/or professional pursuits to provide an enhanced credential that results in increase hire-ability and/or promote-ability.

3. Rationale:

3.1 Reason for developing the proposed certificate program:

Since the events of 09-11-01, the focus on readiness for disasters has been growing. In recent years, because of several significant disasters including natural and people-caused, there has been a significant increase in regulatory mandates for organizations to have a comprehensive emergency management program. These requirements drive the need to have staff that understand the required program elements and have the ability to develop

and implement the various plans required for compliance. In preparation for this proposal, a series of meetings were conducted with college deans, department heads, public-school officials, and representatives from all branches of emergency services at the state and regional levels. All expressed a current need that was not currently being fulfilled, and thus the development of this certificate program took shape.

The students completing this program will have demonstrated the ability to assess the preparedness needs of an organization and facilitate the development of appropriate emergency plans for all facets of Emergency Management.

Furthermore employers in both the public and private sectors are increasingly creating positions within their organizations for emergency managers and coordinators. This program will help prepare students to meet the requirements of this expanding area of employment.

3.2 Relationship of the proposed certificate program to other programs now offered by the department:

The EMDS certificate may serve as either a standalone certificate with the successful completion of EMDS 400-404, or as an enhancement to another undergraduate program of study within Ogden College with the completion of EMDS 400-403 coupled with six upper division hours from an applicable program area. (Examples: Chemistry, Physics, Engineering, Meteorology, etc.)

3.3 Relationship of the proposed certificate program to certificate programs offered in other departments:

As noted in section 3.2 the one EMDS certificate requirements may be satisfied with six upper division hours from an applicable program area, including programs in Ogden and other colleges, such as Education Administration, Sports Management, Leadership, Public Health, etc. This six credit hours will substitute for EMDS 404.

3.4 Projected enrollment in the proposed certificate program:

12-15 Students in the initial cohort.

3.5 Similar certificate programs offered elsewhere in Kentucky and in other states (including programs at benchmark institutions):

Eastern KY University - Certificate in Disaster Management

University of North Carolina, Chapel Hill – Certificate Program in Community Preparedness and Disaster Management

3.6 Relationship of the proposed certificate program to the university mission and objectives:

1) Increase the readiness of public and private sector leaders to more effectively plan for and respond to emergency situations. The program will support the mission of WKU in preparing leaders to better serve their organizations and communities.

2) Provide students with a strong technical acumen regarding the risks posed to people,

infrastructure, and the environment from natural, technological, and people-caused disasters. The program provides a unique opportunity to support the WKU mission in “providing research, service and lifelong learning opportunities for its students, faculty, and other constituents”.

3) Provide students with a strong skill set in modern emergency management that can stand alone or be coupled with their chosen academic and/or professional pursuits to provide an enhanced credential that results in increase hire-ability and/or promote-ability.

4) Provide a thoroughly inclusive and rigorous program of study that provides scientific inquiry, applied research and practical application exposure that prepares the student with an immediate readiness to function in complex emergency management situations.

4. Curriculum:

EMDS 400: Emergency Management Policy and Practices	3 Credit Hours
EMDS 401: Natural and Technological Disaster Risks	3 Credit Hours
EMDS 402: Resiliency in Response to Terrorism and Violence	3 Credit Hours
EMDS 403 – Disaster Planning, Management, and Preparedness	3 Credit Hours
EMDS 404- Trends in Disaster Preparedness and Management	3 Credit Hours

5. Budget implications:

Initially the program coordination, course development and delivery will be accomplished using adjunct faculty. When the demand for the course reaches a level with sustained numbers of students at 15 or above full time faculty position(s) may be requested.

6. Proposed term for implementation: Beginning Fall 2019

7. Dates of prior committee approvals:

Office of the Dean	<u>November 26, 2018</u>
Ogden College Curriculum Committee	<u>November 30, 2018</u>
Undergraduate Curriculum Committee	_____
University Senate	_____
Board of Regents	_____

VI. Academic Policy Subcommittee Report

Attendance Policy Revision (added below to the bottom of the agenda)

VII. Steering Committee Report

VIII. Announcements

IX. Adjourn

**General Guidelines for
Proposal to Revise an Academic Policy**

- This form is used to make revisions to existing university academic policies such as those included in the Academic Requirements and Regulations section of the undergraduate catalog.
- A proposal to revise an existing academic policy at the program or college/school level should be submitted using the proposal to revise a program.
- Proposals to revise academic policies are **action items**.
- **Item 1** should briefly state the proposed revision to the academic policy.
- **Item 2** should state the current policy as printed in the catalog.
- **Item 3** should state the proposed policy to be printed in the catalog.
- **Item 4** should cite specific justification for the revision including supporting data, if appropriate. Is the revision a result of state or federal requirements or other governing or oversight agencies?
- **Item 5** should indicate the impact on any existing policies that may be affected by this revision, including the impact upon the populations that may be affected. Note that revisions in academic policies may impact non-academic policies.
- **Item 6** should indicate when the proposed revision goes into effect and any special provisions for currently enrolled students.

Proposal Date:

College Name

Department Name

Proposal to Revise an Academic Policy

(Action Item)

Contact Person:

Identification of proposed policy revision:

1. Catalog statement of existing policy:

Attendance Policy—Registration in a course obligates the student to be regular and punctual in class attendance. Students should make certain their names are on the class roll. If an error has been made in registration, it is the student's responsibility to see the error is corrected in the Office of the Registrar. It is the individual instructor's responsibility to inform students of the guidelines for implementing the instructor's attendance policy, in writing within one week of the start of the pertinent semester/term/summer session. Students who cease attending class are expected to report to the Office of the Registrar to initiate withdrawal procedures. Withdrawal deadlines are published each term in the Registration Guide.

Excessive absenteeism frequently contributes to poor academic achievement. An instructor who determines a student's absenteeism is inconsistent with the instructor's stated policy should either counsel with the student or request the Advising and Career Development Center arrange a counseling session with the student. Excessive absenteeism may result in the instructor's dismissing the student from the class and recording a failing grade, unless the student officially withdraws from the class before the withdrawal deadline. If the student withdraws from the university after the end of the official withdrawal period, excessive absenteeism may be one of the considerations in the instructor's deciding whether circumstances justify a "W" or an "F" in the course. The normal appeal process is available to the student who wants to appeal the decision of the instructor.

When a student is absent from class because of illness, death in the family, or other justifiable reasons, it is the student's responsibility to consult the instructor at the earliest possible time. Contact ACDC for guidance (270) 745- 5065. The ACDC provides class attendance notification services as requested by students and faculty. When requested by students, notifications of absences resulting from personal emergencies are relayed to faculty. In addition to this official notification, it is the student's responsibility to contact each professor to make arrangements to complete missed assignments and tests. The ACDC also notifies students of excessive absences reported by faculty.

Students who, without previous arrangement with the instructor or department, fail to attend the first two class meetings of a course meeting multiple times per week or the first meeting of a class that meets one time per week MAY be dropped from the course. Nonattendance for a web-based course shall be defined as failure to perform meaningful academically-related activity (including, but not limited to, the following: submitting an academic assignment, taking an exam, participating in an online discussion about academic matters) within one week of the course start date without previous arrangements with the instructor or department.

2. **Catalog statement of proposed policy:**

Attendance Policy

It is the policy of Western Kentucky University that class attendance is an important part of a student's educational experience and is a requirement for success in courses. Registration in a course obligates the student to be regular and punctual in class attendance. Students should make certain their names are on the class roll. If an error has been made in registration, it is the student's responsibility to see the error is corrected in the Office of the Registrar. Students who know of necessary absences should consult with the instructor before the absence. Students who miss classes are not excused from the work associated with the course.

Students who cease attending class are expected to report to the Office of the Registrar to initiate withdrawal procedures. Withdrawal deadlines are published each term in the Registration Guide. Non-attendance does not relieve students of the responsibility for tuition or fees. It is the responsibility of each instructor to maintain attendance records to inform the University whether a student was present in class until the 60% point of the term. Records may be kept in the instructor's desired format. Attendance has an effect on the receipt or repayment of financial aid or scholarship.

Instructors may create guidelines for attendance in each course. The instructor must notify students of the attendance policy in writing within one week of the start of the pertinent semester/term/summer session. It is recommended that this information be included in the course syllabus.

Excessive Absenteeism

Excessive absenteeism frequently contributes to poor academic achievement. An instructor who determines a student's absenteeism is inconsistent with the instructor's stated policy should either counsel with the student or request the Advising and Career Development Center arrange a counseling session with the student. Excessive absenteeism may result in the instructor's dismissing the student from the class and recording a failing grade, unless the student officially withdraws from the class before the withdrawal deadline. If the student withdraws from the university after the end of the official withdrawal period, excessive absenteeism may be one of the considerations in the instructor's deciding whether circumstances justify a "W" or an "F" in the course. The normal appeal process is available to the student who wants to appeal the decision of the instructor.

Medical or Bereavement Absenteeism

When a student is absent from class because of illness, death in the family, or other justifiable reasons, it is the student's responsibility to consult the instructor at the earliest possible time. Contact ACDC for guidance (270) 745-5065. The ACDC provides class attendance notification services as requested by students and faculty. When requested by students, notifications of absences resulting from personal emergencies are relayed to faculty. In addition to this official notification, it is the student's responsibility to contact each professor to make arrangements to complete missed assignments and tests.

5th Week Check-in

The Advising and Career Development Center (ACDC) provides a 5th week check-in to all freshmen and sophomores in classes at the 200-level and below during the 5th week of each semester to help identify areas that may need improvement. Instructors shall provide information about students' class performance regarding attendance and grades. It is recommended that instructors offer a meaningful assessment during the first five weeks to measure student performance in addition to keeping track of attendance. Students may be flagged for missing class too frequently and/or for having a D/F in the course. Course instructors, academic advisors, residence hall staff and/or the ACDC may follow up with flagged students to discuss potential issues the student may be facing in and out of the classroom.

Drop for Non-Attendance (During Registration Period)

Students who, without previous arrangement with the instructor or department, fail to attend the first two class meetings of a course meeting multiple times per week or the first meeting of a class that meets one time per week should be dropped from the course by the instructor. Non-attendance for a web-based or online-hybrid course shall be defined as failure to perform meaningful academically-related activity (e.g., assignments, exams, and discussions about academic matters) within one week of the course start date without previous arrangements with the instructor or department. Instructors have the right to drop non-attending students during the drop/add period specified in the Registration Guide to allow other students to register for the course, thus cutting down on waitlists and bottlenecks.

Failure for Non-Attendance (After Registration Period)

Students who attended a course during the first week but ceased attending up to and including the 60% point of a term will receive a failure for non-attendance grade (FN). This grade shows no semester hours earned and no quality points. Non-attendance may include either ceasing to attend the course or failing to complete any meaningful assignments up to and including the 60% point of the term. Instructors must enter the date the student last attended the course when entering the FN grade on student's record.

Registration Requirement

No student may attend a course for which he or she is not registered, either as a degree-seeking student or as a non-degree seeking student.

3. Rationale for proposed policy revision:

Encouraging and tracking student attendance works in the best interests of both students and the institution. This policy does not make a single substantive change, but brings together and clarifies a number of issues related to attendance, including 5th Week Check-in and drops for non-attendance/non-attendance fails.

4. Impact of proposed policy revision on existing academic or non-academic policies:

4.1 Impact on policies: none.

4.2 Impact on populations that may be affected: Waitlisted students may have class places opened for them when non-attendance drops are made in a timely way. In addition, encouraging faculty responsibility for attendance tracking and 5th Week check-in may allow us to identify and help more struggling students.

5. Proposed term for implementation: Fall 2019

6. Dates of prior committee approvals:

Department/ Unit _____

College Curriculum Committee (if applicable)

UCC Academic Policy Subcommittee (if applicable)

Undergraduate Curriculum Committee

University Senate
