MEMORANDUM TO: Ogden College of Science and Engineering Curriculum Committee

Dr. Taha Alyousef
Dr. Doug Harper
Dr. Michelle Jackson
Dr. Pat Kambesis
Dr. Phil Lienesch
Dr. Jeremy Maddox
Dr. Andy Mienaltowski
Dr. Les Pesterfield
Dr. Todd Willian

FROM: Greg Arbuckle, Interim Chair

SUBJECT: Agenda for Thursday, October 31, 2019 4:00 p.m. in OCH 1028

A. OLD BUSINESS:

I. Consideration of the minutes of the September 26, 2019 meeting.

B. NEW BUSINESS:

Type of item	Description of Item & Contact Information
Information	The following proposals were submitted via the expedited review process: **Proposal to Suspend a Course** CHEM 314, Introductory Organic Chemistry CE 175, University Experience – Civil Engineering CE 301, Field Experience in Floodplain Management CE 304, Construction Management Lab CE 326, Engineering Law CE 360, Estimating Scheduling and Bidding CE 361, Estimating Scheduling and Bidding Laboratory CE 400, Civil Engineering Senior Design Seminar CE 436, Design/Construction Integration CE 441, Masonry Design and Construction Laboratory CE 476, Highway Construction CE 482, WKU - Elementary Structural Design CE 486, Steel & Concrete Construction CE 490, UK CE Selected Topics (Fall) CE 491, UK CE Selected Topics (Spring) CE 498, Senior Project **Proposal Revise Course Catalog Listing** CHEM 101, Introduction to Chemistry CHEM 111, Introduction to Forensic Chemistry CHEM 340, Organic Chemistry I CHEM 341, Lab Organic Chemistry I CHEM 436, Instrumental Analysis Laboratory CHEM 451, Physical Chemistry Laboratory CHEM 452, Physical Chemistry II

	CHEM 453, Physical Chemistry II Laboratory **Proposal to Revise Course Prerequisites** AMS 398, Internship I CE 176, CE Freshman Design CE 342, Fluid Thermal Sciences
Consent	**Proposal to Revise Course Prerequisites/Corequisites** CHEM 462, Bioinorganic Chemistry, 3 hrs. Contact: Jeremy Maddox, Jeremy.maddox@wku.edum x8725
Consent	**Proposal to Revise a Course Title** GEOL 415, Environmental Geology, 3 hrs. Contact: Nahid Gani, nahid.gani@wku.edu, x2813
Consent	**Proposal to Revise Course Prerequisites/Corequisites** PHYS 318, Data Acquisition Using LabVIEW, 3 hrs. Contact: Doug Harper, doug.harper@wku.edu, x6194
Consent	**Proposal to Revise Course Prerequisites/Corequisites** AMS 217, Industrial Materials, 3 hrs. Contact: Mark Doggett, mark.doggett@wku.edu, x6951
Consent	**Proposal to Revise Course Prerequisites/Corequisites** CE 303, Construction Management, 3 hrs. Contact: Jason.wilson@wku.edu, Jason.wilson@wku.edu, x2322
Action	**Proposal to Make Multiple Revisions to a Course** CHEM 304, Biochemistry for the Health Sciences, 4 hrs. Contact: Jeremy Maddox, Jeremy.maddox@wku.edum x8725
Action	**Proposal to Make Multiple Revisions to a Course** CHEM 320, Principles of Inorganic Chemistry, 3 hrs. Contact: Jeremy Maddox, Jeremy.maddox@wku.edum x8725
Action	**Proposal to Make Multiple Revisions to a Course** CHEM 420, Inorganic Chemistry, 3 hrs. Contact: Jeremy Maddox, Jeremy.maddox@wku.edu, x8725
Action	**Proposal to Make Multiple Revisions to a Course** CHEM 430, Forensic Chemistry, 3 hrs. Contact: Jeremy Maddox, Jeremy.maddox@wku.edum x8725
Action	**Proposal to Make Multiple Revisions to a Course** CHEM 435, Instrumental Analysis, 3 hrs. Contact: Jeremy Maddox, Jeremy.maddox@wku.edum x8725
Action	**Proposal to Make Multiple Revisions to a Course** CHEM 450, Physical Chemistry I, 3 hrs. Contact: Jeremy Maddox, Jeremy.maddox@wku.edum x8725
Action	**Proposal to Make Multiple Revisions to a Course** GEOL 112, Earth History, 3 hrs. Contact: Royhan Gani, Royhan.gani@wku.edu, x5977
Action	**Proposal to Make Multiple Revisions to a Course** GEOL 114, Earth History Lab, 1 hr. Contact: Royhan Gani, Royhan.gani@wku.edu, x5977
Action	**Proposal to Create a New Course** GEOL 250, Environmental Geology, 3 hrs.

	Contact: Nahid Gani, nahid.gani@wku.edu, x2813
Action	**Proposal to Create a New Course** GEOL 301, Geology and Climate: Past and Future Contact: Royhan Gani, Royhan.gani@wku.edu, x5977
Action	**Proposal to Create a New Course** PHYS 363, Science, Technology, and Society, 3 hrs. Contact: Scott Bonham, scott.bonham@wku.edu, x6196
Action	**Proposal to Revise Course Credit Hours** CE 342, Fluid Thermal Sciences, 4 hrs. Contact: Jason Wilson, Jason.wilson@wku.edu, x2322
Action	**Proposal to Create a New Course** CE 432, Traffic Engineering, 3 hrs. Contact: Kirolos Haleem, kiroos.haleem@wku.edu, x56302
Action	**Proposal to Revise a Program** Ref. 476, Systems Engineering Minor, 21-22 hrs. Contact: Robert Choate, Robert.choate@wku.edu, x8852
Action	**Proposal to Revise a Program** Ref. 518, Architectural Science, 81 hrs. Contact: Shahnaz Aly, Shahnaz.aly@wku.edu, x5849
Action	**Proposal to Revise a Program** Ref. 534/534P, Civil Engineering, 130 hrs. Contact: Jason Wilson, Jason.wilson@wku.edu, x2322

C. OTHER BUSINESS

Minutes – OCSE Curriculum Committee **September 26, 2019**

Members Present:

Dr. Taha Alyousef
Dr. Doug Harper
Dr. Michelle Jackson
Dr. Pat Kambesis
Dr. Phil Lienesch
Dr. Jeremy Maddox
Dr. Andy Mienaltowski
Dr. Les Pesterfield
Dr. Todd Willian
Guest: Scott Grubbs

FROM: Greg Arbuckle, Interim Chair

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

OLD BUSINESS:
Maddox/Pesterfield moved to approve of the minutes of the May 2nd meeting. Motion passed.

NEW BUSINESS:

Consent Agenda
The proposals to Revise a Course Prerequisites/Corequisites: BIOL 131, BIOL 120, and BIOL 122 were moved from the consent agenda to the action agenda for discussion. Maddox/Harper moved to table the proposals. Motion to table passed unanimously.

Maddox/Willian moved to approve the remaining consent agenda: Proposal to Revise a Course Title, GEOG 492 and GISC 423. Motion passed unanimously.

Action Agenda

Chemistry Department
Mienaltowski/Jackson moved to approve Proposal to Revise a Program: Ref. 174, Certificate in GISC. Motion passed unanimously.

Pesterfield/Jackson moved to approve Proposal to Make Multiple Revisions to a Course, CHEM 304, Biochemistry for the Health Sciences. Motion passed unanimously.

Psychological Sciences Department
Maddox/Willian moved to approve proposal to Create a New Course: PSYS 175, University Experience. Motion passed unanimously.

OTHER BUSINESS: None

Meeting Adjourned at 4:44pm.

Proposal Date: 09/13/2019

Ogden College of Science & Engineering
Department of Chemistry
Proposal to Suspend a Course
(Consent Item)

Contact Person: Jeremy B Maddox, jeremy.maddox@wku.edu, 5-8725

1. **Identification of course:**
   - 1.1 Current course prefix (subject area) and number: CHEM 314
   - 1.2 Course title: INTRODUCTORY ORGANIC CHEMISTRY

2. **Rationale for the course suspension:**

   CHEM 314 has not been offered in several years, and the Department has no plans to offer it again in the future.

3. **Effect of course suspension on programs or other departments, if known:**

   No programs require CHEM 314. Programs that allow CHEM 314 to qualify as elective coursework should replace it with CHEM 340 and CHEM 341.

4. **Proposed term for implementation:**

   First available

5. **Dates of prior committee approvals:**

Chemistry Department Head	**10/4/2019**
Ogden College Dean's Office	
Provost's Office	

Proposal Date: 09/19/2019

Ogden College of Science & Engineering
Department of Chemistry
Proposal to Revise Course Catalog Listing
(Consent Item)

Contact Person: Jeremy B. Maddox, jeremy.maddox@wku.edu, 5-8725

1. **Identification of course:**
   1.1 Course prefix (subject area) and number: CHEM 101
   1.2 Course title: INTRODUCTION TO CHEMISTRY

2. **Current course catalog listing:**

   A one semester terminal course covering applied chemistry and environmental considerations which can be used for general education requirements in the science field for non-science majors and minors. In-class laboratory constitutes 20 percent of class. It does not count toward a major or minor in chemistry nor does it satisfy the requirements for certain home economics and agriculture majors. Course Fee | Colonnade E-NS (SL) | NS | SL

3. **Proposed course catalog listing: (aim for 25 words or less)**

   A one-semester terminal general education course for non-science majors covering chemistry in everyday life. In-class laboratory constitutes 20 percent of class. Course Fee | Colonnade E-NS (SL) | NS | SL

4. **Rationale for revision of the course catalog listing:**
   The proposed listing is updated and is more concise than the current listing.

5. **Proposed term for implementation:**
   First available

6. **Dates of prior committee approvals:**

Chemistry Department Head	**10/4/2019**
Ogden College Dean's Office	
Provost's Office	

Proposal Date: 09/19/2019

Ogden College of Science & Engineering
Department of Chemistry
Proposal to Revise Course Catalog Listing
(Consent Item)

Contact Person: Jeremy B. Maddox, jeremy.maddox@wku.edu, 5-8725

1. **Identification of course:**
   1.1 Course prefix (subject area) and number: CHEM 111
   1.2 Course title: INTRODUCTION TO FORENSIC CHEMISTRY

2. **Current course catalog listing:**

   A combination of lecture and in-class laboratory activities designed to introduce the fundamentals of forensic chemistry including evidence collection and preservation, arson investigation, poisons and toxicity, determination of time of death, the chemistry of explosions, and DNA/blood analysis. In-class laboratory constitutes 20% of the class. Colonnade E-NS (SL) | NS | SL

3. **Proposed course catalog listing: (aim for 25 words or less)**

   A combination of lecture and in-class laboratory activities designed to introduce the fundamentals of forensic chemistry in a criminalistics context. Topics discussed may include evidence collection and preservation, patterns (especially fingerprints and blood spatter), fire and arson, drugs and poisons, firearms and explosives, trace evidence analysis, and DNA. In-class laboratory constitutes 20% of the class. Colonnade E-NS (SL) | NS | SL

4. **Rationale for revision of the course catalog listing:**
   The proposed listing is more precise with respect to content covered in the course.

5. **Proposed term for implementation:**
   First available

6. **Dates of prior committee approvals:**

Chemistry Department Head	**10/4/2019**
Ogden College Dean's Office	
Provost's Office	

Proposal Date: 09/13/2019

Ogden College of Science & Engineering
Department of Chemistry
Proposal to Revise Course Catalog Listing
(Consent Item)

Contact Person: Jeremy B. Maddox, jeremy.maddox@wku.edu, 5-8725

1. **Identification of course:**
   1.1 Course prefix (subject area) and number: CHEM 340
   1.2 Course title: ORGANIC CHEMISTRY I

2. **Current course catalog listing:**

   The first half of the standard oneyear course for chemistry majors. Discussion includes various organic mechanisms and preparations. The entire sequence of CHEM 340-341, 342-343 should be completed. If only one semester of organic chemistry is desired, CHEM 314 should be taken.

3. **Proposed course catalog listing: (aim for 25 words or less)**

   The first half of the standard one-year course for chemistry majors. Discussion includes structure of organic molecules, mechanisms, and preparations.

4. **Rationale for revision of the course catalog listing:**

   The Department has no plans to offer CHEM 314 in the future. The proposed revision removes the note about CHEM 314.

5. **Proposed term for implementation:**

   First available

6. **Dates of prior committee approvals:**

Chemistry Department Chair	**10/4/2019**
Ogden College Dean's Office	
Provost's Office	

Proposal Date: 09/13/2019

Ogden College of Science & Engineering
Department of Chemistry
Proposal to Revise Course Catalog Listing
(Consent Item)

Contact Person: Jeremy B. Maddox, jeremy.maddox@wku.edu, 5-8725

1. **Identification of course:**
   1.1 Course prefix (subject area) and number: CHEM 341
   1.2 Course title: LAB ORGANIC CHEMISTRY I

2. **Current course catalog listing:**

   Laboratory work includes studies of typical organic reactions and preparations. Course Fee

3. **Proposed course catalog listing: (aim for 25 words or less)**

   Laboratory work includes purification and characterization of organic compounds. Course Fee

4. **Rationale for revision of the course catalog listing:**

   The proposed description is more precisely articulates the content covered in the laboratory.

5. **Proposed term for implementation:**

   First available

6. **Dates of prior committee approvals:**

Chemistry Department Head	**10/4/2019**
Ogden College Dean's Office	
Provost's Office	

Proposal Date: 09/19/2019

Ogden College of Science & Engineering
Department of Chemistry
Proposal to Revise Course Catalog Listing
(Consent Item)

Contact Person: Jeremy B. Maddox, jeremy.maddox@wku.edu, 5-8725

1. **Identification of course:**
   1.1 Course prefix (subject area) and number: CHEM 436
   1.2 Course title: INSTRUMENTAL ANALYSIS LABORATORY

2. **Current course catalog listing:**

   A laboratory to accompany CHEM 435 focusing on techniques involving modern instrumental analysis. Pre-lab and laboratory meets 4.5 hours per week.

3. **Proposed course catalog listing: (aim for 25 words or less)**

   A laboratory to accompany CHEM 435, focusing on techniques involving modern instrumental methods of analysis. Pre-lab and laboratory meets 4.5 hours per week.

4. **Rationale for revision of the course catalog listing:**

   The proposed description involves a minor wording change that emphasizes the course focuses on the various methods of instrumental analysis.

5. **Proposed term for implementation:**

   First available

6. **Dates of prior committee approvals:**

Chemistry Department Head	**10/4/2019**
Ogden College Dean's Office	
Provost's Office	

Proposal Date: 09/13/2019

Ogden College of Science & Engineering
Department of Chemistry
Proposal to Revise Course Catalog Listing
(Consent Item)

Contact Person: Jeremy B. Maddox, jeremy.maddox@wku.edu, 5-8725

1. **Identification of course:**
   1.1 Course prefix (subject area) and number: CHEM 451
   1.2 Course title: PHYSICAL CHEMISTRY I LABORATORY

2. **Current course catalog listing:**

   A laboratory to accompany CHEM 450 that emphasizes the treatment and analysis of scientific data as well as formal scientific communication. Experiments may include measurements of thermochemical properties, phase and chemical equilibria, kinetic rates, spectroscopic properties, and supporting computational chemistry. Pre-lab lecture and laboratory meets 4.5 hours per week. Course Fee

3. **Proposed course catalog listing: (aim for 25 words or less)**

   A laboratory to accompany CHEM 450 that emphasizes the treatment and analysis of scientific data as well as formal scientific communication. Pre-lab lecture and laboratory meets 4.5 hours per week. Course Fee

4. **Rationale for revision of the course catalog listing:**

   The aim of the revision is to reduce the number of words in the catalog description.

5. **Proposed term for implementation:**
   First available

6. **Dates of prior committee approvals:**

Chemistry Department Head	**10/4/2019**
Ogden College Dean's Office	
Provost's Office	

Proposal Date: 09/13/2019

Ogden College of Science & Engineering
Department of Chemistry
Proposal to Revise Course Catalog Listing
(Consent Item)

Contact Person: Jeremy B. Maddox, jeremy.maddox@wku.edu, 5-8725

1. **Identification of course:**
   1.1 Course prefix (subject area) and number: CHEM 452
   1.2 Course title: PHYSICAL CHEMISTRY II

2. **Current course catalog listing:**

   Selected topics include thermodynamics and equilibria, the kinetic theory of gases, transport properties, chemical kinetics, introductory quantum mechanics, spectroscopy, statistical thermodynamics, and interdisciplinary applications.

3. **Proposed course catalog listing: (aim for 25 words or less)**

   A continuation of CHEM 450. Selected topics include introductory quantum mechanics, spectroscopy, statistical thermodynamics, and interdisciplinary applications.

4. **Rationale for revision of the course catalog listing:**

   Past revisions to the chemistry curriculum necessitate explicitly designating which physical chemistry topics will be covered in CHEM 450 and which will be covered in CHEM 452.

5. **Proposed term for implementation:**
   First available

6. **Dates of prior committee approvals:**

Chemistry Department Head	**10/4/2019**
Ogden College Dean's Office	
Provost's Office	

Proposal Date: 09/13/2019

Ogden College of Science & Engineering
Department of Chemistry
Proposal to Revise Course Catalog Listing
(Consent Item)

Contact Person: Jeremy B. Maddox, jeremy.maddox@wku.edu, 5-8725

1. **Identification of course:**
   1.1 Course prefix (subject area) and number: CHEM 453
   1.2 Course title: PHYSICAL CHEMISTRY II LABORATORY

2. **Current course catalog listing:**

   A laboratory to accompany CHEM 452. Experiments may include measurements of thermochemical properties, phase and chemical equilibria, kinetic rates, spectroscopic properties, and supporting computational chemistry. Pre-lab lecture and laboratory meets 4.5 hours per week. Course Fee

3. **Proposed course catalog listing: (aim for 25 words or less)**

   A laboratory to accompany CHEM 452 that emphasizes the treatment and analysis of scientific data as well as formal scientific communication. Pre-lab lecture and laboratory meets 4.5 hours per week. Course Fee

4. **Rationale for revision of the course catalog listing:**

   The aim of the revision is to reduce the number of words in the catalog description.

5. **Proposed term for implementation:**

   First available

6. **Dates of prior committee approvals:**

Chemistry Department Head	**10/4/2019**
Ogden College Dean's Office	
Provost's Office	

Proposal Date:4/19/19

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

Contact Person: Stacy Wilson, stacy.wilson@wku.edu, 56394

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: AMS 398
   - 1.2 Course title: Internship I

2. **Current prerequisites/corequisites/special requirements:** 15 semester hours in Industrial Sciences or junior standing with permission of instructor.

3. **Proposed prerequisites/corequisites/special requirements:** Junior standing with permission of instructor

4. **Rationale for the revision of prerequisites/corequisites/special requirements:** The Industrial Sciences program no longer exists.

5. **Effect on completion of major/minor sequence:** none

6. **Proposed term for implementation:** as soon as possible

7. **Dates of prior committee approvals:**

SEAS Department Head	**9/27/19**
Ogden College Dean's Office	
Provost's Office	

September 13, 2019

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

Contact Person: Jason Wilson, Jason.Wilson@wku.edu, 745-2322

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: CE 176
   - 1.2 Course title: CE Freshman Design

2. **Current prerequisites:**
   Prerequisite(s): MATH 117 or higher (may be taken concurrently)

3. **Proposed prerequisites :**
   Prerequisite(s): MATH 136 or higher (may be taken concurrently)

4. **Rationale for the revision of prerequisites:**
   Historically, this course has been a co-requisite with Math 117. Overtime, it has become apparent that the co-requisite is not sufficient for the content of this course.

5. **Effect on completion of major/minor sequence:**
   None

6. **Proposed term for implementation:**
   Next Available

7. **Dates of prior committee approvals:**

School of Engineering and Applied Sciences	**10/7/19**
Ogden College Dean's Office	
Provost's Office	

March 19, 2019

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

Contact Person: Jason Wilson, Jason.Wilson@wku.edu, 270-745-2322

1. **Identification of course:**
   1.1 Course prefix (subject area) and number: CE 342
   1.2 Course title: Fluid Thermal Sciences

2. **Current prerequisites/corequisites/special requirements:**
   Prerequisite(s): MATH 237 and (EM 221 or EM 222)
   Equivalent(s): CE 341
   Major Restriction(s) Civil Engineering Majors Only

3. **Proposed prerequisites/corequisites/special requirements:**
   Prerequisite(s): MATH 237 and (EM 221 or EM 222)
   Equivalent(s): CE 341
   Major Restriction(s) Civil Engineering Majors (534) and Pre-Majors (534P) Only

4. **Rationale for the revision of prerequisites/corequisites/special requirements:**
   The intended language "Civil Engineering Majors" was intended to include the Civil Engineering major and pre-major status.

5. **Effect on completion of major/minor sequence:**
   None

6. **Proposed term for implementation:**
   Spring 2020

7. **Dates of prior committee approvals:**

SEAS Department Head	**9/27/19**
Ogden College Dean's Office	
Provost's Office	

Proposal Date: 9/13/2019

Ogden College of Science and Engineering
School of Engineering and Applied Sciences
Proposal to Suspend a Course
(Consent Item)

Contact Person: Jason C. Wilson, MS, PE, Jason.wilson@wku.edu, 270-745-2322

1. **Identification of course:**
   1.1 Current course prefix (subject area) and number: CE 175
   1.2 Course title: University Experience – Civil Engineering

2. **Rationale for the course suspension:**
   Course has not been offered in several years

3. **Effect of course suspension on programs or other departments, if known:**
   NONE

4. **Proposed term for implementation:**
   SPRING 2020

5. **Dates of prior committee approvals:**

School of Engineering and Applied Sciences	**10/7/19**
Ogden College Dean's Office	
Provost Office	

Proposal Date: 9/13/2019

Ogden College of Science and Engineering
School of Engineering and Applied Sciences
Proposal to Suspend a Course
(Consent Item)

Contact Person: Jason C. Wilson, MS, PE, Jason.wilson@wku.edu, 270-745-2322

1. **Identification of course:**
   1.1 Current course prefix (subject area) and number: CE 301
   1.2 Course title: Field Experience in Floodplain Management

2. **Rationale for the course suspension:**
   Course has not been offered in several years

3. **Effect of course suspension on programs or other departments, if known:**
   NONE

4. **Proposed term for implementation:**
   SPRING 2020

5. **Dates of prior committee approvals:**

School of Engineering and Applied Sciences	**10/7/19**
Ogden College Dean's Office	
Provost Office	

Proposal Date:3/19/19

Ogden College of Science and Engineering
School of Engineering and Applied Sciences
Proposal to Suspend a Course
(Consent Item)

Contact Person: Jason C. Wilson, Jason.wilson@wku.edu, 270-745-2322

1. **Identification of course:**
   1.1 Current course prefix (subject area) and number: CE 304
   1.2 Course title: Construction Management Lab

2. **Rationale for the course suspension:**
   Historically, this course has been a co-requisite with CE 303. Overtime, it has become apparent that a lab in this area is redundant. Both CE 303 and CE 304 are required for Civil Engineering, Construction Management, and Architectural Science programs. Faculty in all areas are in agreement that this lab is not needed for these programs.

3. **Effect of course suspension on programs or other departments, if known:** None

4. **Proposed term for implementation:** SPRING 2020

5. **Dates of prior committee approvals:**

School of Engineering and Applied Sciences	**10/7/19**
Ogden College Dean's Office	
Provost Office	

Proposal Date: 9/13/2019

Ogden College of Science and Engineering
School of Engineering and Applied Sciences
Proposal to Suspend a Course
(Consent Item)

Contact Person: Jason C. Wilson, MS, PE, Jason.wilson@wku.edu, 270-745-2322

1. **Identification of course:**
   1.1 Current course prefix (subject area) and number: CE 326
   1.2 Course title: Engineering Law

2. **Rationale for the course suspension:**
   Course has not been offered in several years

3. **Effect of course suspension on programs or other departments, if known:**
   NONE

4. **Proposed term for implementation:**
   SPRING 2020

5. **Dates of prior committee approvals:**

School of Engineering and Applied Sciences	10/7/19
Ogden College Dean's Office	
Provost Office	

Proposal Date: 9/13/2019

Ogden College of Science and Engineering
School of Engineering and Applied Sciences
Proposal to Suspend a Course
(Consent Item)

Contact Person: Jason C. Wilson, MS, PE, Jason.wilson@wku.edu, 270-745-2322

1. **Identification of course:**
   1.1 Current course prefix (subject area) and number: CE 360
   1.2 Course title: Estimating Scheduling and Bidding

2. **Rationale for the course suspension:**
   Course has not been offered in several years

3. **Effect of course suspension on programs or other departments, if known:**
   NONE

4. **Proposed term for implementation:**
   SPRING 2020

5. **Dates of prior committee approvals:**

School of Engineering and Applied Sciences	**10/7/19**
Ogden College Dean's Office	
Provost Office	

Proposal Date: 9/13/2019

Ogden College of Science and Engineering
School of Engineering and Applied Sciences
Proposal to Suspend a Course
(Consent Item)

Contact Person: Jason C. Wilson, MS, PE, Jason.wilson@wku.edu, 270-745-2322

1. **Identification of course:**
   1.1 Current course prefix (subject area) and number: CE 361
   1.2 Course title: Estimating Scheduling and Bidding Laboratory

2. **Rationale for the course suspension:**
   Course has not been offered in several years

3. **Effect of course suspension on programs or other departments, if known:**
   NONE

4. **Proposed term for implementation:**
   SPRING 2020

5. **Dates of prior committee approvals:**

School of Engineering and Applied Sciences	**10/7/19**
Ogden College Dean's Office	
Provost Office	

Proposal Date: 9/13/2019

Ogden College of Science and Engineering
School of Engineering and Applied Sciences
Proposal to Suspend a Course
(Consent Item)

Contact Person: Jason C. Wilson, MS, PE, Jason.wilson@wku.edu, 270-745-2322

1. **Identification of course:**
   1.1 Current course prefix (subject area) and number: CE 400
   1.2 Course title: Civil Engineering Senior Design Seminar

2. **Rationale for the course suspension:**
   Course has been replaced with ENGR 490

3. **Effect of course suspension on programs or other departments, if known:**
   NONE

4. **Proposed term for implementation:**
   SPRING 2020

5. **Dates of prior committee approvals:**

School of Engineering and Applied Sciences	10/7/19
Ogden College Dean's Office	
Provost Office	

Proposal Date: 9/13/2019

Ogden College of Science and Engineering
School of Engineering and Applied Sciences
Proposal to Suspend a Course
(Consent Item)

Contact Person: Jason C. Wilson, MS, PE, Jason.wilson@wku.edu, 270-745-2322

1. **Identification of course:**
   1.1 Current course prefix (subject area) and number: CE 436
   1.2 Course title: Design/Construction Integration

2. **Rationale for the course suspension:**
   Course has not been offered in several years

3. **Effect of course suspension on programs or other departments, if known:**
   NONE

4. **Proposed term for implementation:**
   SPRING 2020

5. **Dates of prior committee approvals:**

School of Engineering and Applied Sciences	**10/7/19**
Ogden College Dean's Office	
Provost Office	

Proposal Date: 9/13/2019

Ogden College of Science and Engineering
School of Engineering and Applied Sciences
Proposal to Suspend a Course
(Consent Item)

Contact Person: Jason C. Wilson, MS, PE, Jason.wilson@wku.edu, 270-745-2322

1. **Identification of course:**
   1.1 Current course prefix (subject area) and number: CE 441
   1.2 Course title: Masonry Design and Construction Laboratory

2. **Rationale for the course suspension:**
   Course has not been offered in several years

3. **Effect of course suspension on programs or other departments, if known:**
   NONE

4. **Proposed term for implementation:**
   SPRING 2020

5. **Dates of prior committee approvals:**

School of Engineering and Applied Sciences	**10/7/19**
Ogden College Dean's Office	
Provost Office	

Proposal Date: 9/13/2019

Ogden College of Science and Engineering
School of Engineering and Applied Sciences
Proposal to Suspend a Course
(Consent Item)

Contact Person: Jason C. Wilson, MS, PE, Jason.wilson@wku.edu, 270-745-2322

1. **Identification of course:**
   1.1 Current course prefix (subject area) and number: CE 476
   1.2 Course title: Highway Construction

2. **Rationale for the course suspension:**
   Course has not been offered in several years

3. **Effect of course suspension on programs or other departments, if known:**
   NONE

4. **Proposed term for implementation:**
   SPRING 2020

5. **Dates of prior committee approvals:**

School of Engineering and Applied Sciences	**10/7/19**
Ogden College Dean's Office	
Provost Office	

Proposal Date: 9/13/2019

Ogden College of Science and Engineering
School of Engineering and Applied Sciences
Proposal to Suspend a Course
(Consent Item)

Contact Person: Jason C. Wilson, MS, PE, Jason.wilson@wku.edu, 270-745-2322

1. **Identification of course:**
   1.1 Current course prefix (subject area) and number: CE 482
   1.2 Course title: WKU – Elementary Structural Design

2. **Rationale for the course suspension:**
   Course has not been offered in several years

3. **Effect of course suspension on programs or other departments, if known:**
   NONE

4. **Proposed term for implementation:**
   SPRING 2020

5. **Dates of prior committee approvals:**

School of Engineering and Applied Sciences	**10/7/19**
Ogden College Dean's Office	
Provost Office	

Proposal Date: 9/13/2019

Ogden College of Science and Engineering
School of Engineering and Applied Sciences
Proposal to Suspend a Course
(Consent Item)

Contact Person: Jason C. Wilson, MS, PE, Jason.wilson@wku.edu, 270-745-2322

1. **Identification of course:**
   1.1 Current course prefix (subject area) and number: CE 486
   1.2 Course title: Steel & Concrete Construction

2. **Rationale for the course suspension:**
   Course has not been offered in several years

3. **Effect of course suspension on programs or other departments, if known:**
   NONE

4. **Proposed term for implementation:**
   SPRING 2020

5. **Dates of prior committee approvals:**

School of Engineering and Applied Sciences	**10/7/19**
Ogden College Dean's Office	
Provost Office	

Proposal Date: 9/13/2019

Ogden College of Science and Engineering
School of Engineering and Applied Sciences
Proposal to Suspend a Course
(Consent Item)

Contact Person: Jason C. Wilson, MS, PE, Jason.wilson@wku.edu, 270-745-2322

1. **Identification of course:**
   1.1 Current course prefix (subject area) and number: CE 490
   1.2 Course title: UK CE Selected Topics (Fall)

2. **Rationale for the course suspension:**
   Course has not been offered in several years

3. **Effect of course suspension on programs or other departments, if known:**
   NONE

4. **Proposed term for implementation:**
   SPRING 2020

5. **Dates of prior committee approvals:**

School of Engineering and Applied Sciences	**10/7/19**
Ogden College Dean's Office	
Provost Office	

Proposal Date: 9/13/2019

Ogden College of Science and Engineering
School of Engineering and Applied Sciences
Proposal to Suspend a Course
(Consent Item)

Contact Person: Jason C. Wilson, MS, PE, Jason.wilson@wku.edu, 270-745-2322

1. **Identification of course:**
   1.1 Current course prefix (subject area) and number: CE 491
   1.2 Course title: UK CE Selected Topics (Spring)

2. **Rationale for the course suspension:**
   Course has not been offered in several years

3. **Effect of course suspension on programs or other departments, if known:**
   NONE

4. **Proposed term for implementation:**
   SPRING 2020

5. **Dates of prior committee approvals:**

School of Engineering and Applied Sciences	**10/7/19**
Ogden College Dean's Office	
Provost Office	

Proposal Date: 9/13/2019

Ogden College of Science and Engineering
School of Engineering and Applied Sciences
Proposal to Suspend a Course
(Consent Item)

Contact Person: Jason C. Wilson, MS, PE, Jason.wilson@wku.edu, 270-745-2322

1. **Identification of course:**
   1.1 Current course prefix (subject area) and number: CE 498
   1.2 Course title: Senior Project

2. **Rationale for the course suspension:**
   Course has been replaced with ENGR 491

3. **Effect of course suspension on programs or other departments, if known:**
   NONE

4. **Proposed term for implementation:**
   SPRING 2020

5. **Dates of prior committee approvals:**

School of Engineering and Applied Sciences	**10/7/19**
Ogden College Dean's Office	
Provost Office	

CHEM 462 Revise Pre/Coreq

University Undergraduate Curriculum Proposal Checklist

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

x For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.
This change is primarily related to the suspension of CHEM 314.
The Biology Department has also approved the proposal.
Further contact outside the department was not deemed necessary.

x What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

None

N/A If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

x Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Department Head	Dean or Designee
10/17/2019 Date	Date

Proposal Date: 09/13/2019

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

Contact Person: Jeremy B. Maddox, jeremy.maddox@wku.edu, 5-8725

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: CHEM 462
   - 1.2 Course title: BIOINORGANIC CHEMISTRY

2. **Current prerequisites/corequisites/special requirements:**

   Prerequisite: CHEM 314 or 340 with a grade of "C" or better.

3. **Proposed prerequisites/corequisites/special requirements:**

   Prerequisite: CHEM 340 with a grade of "C" or better.

4. **Rationale for the revision of prerequisites/corequisites/special requirements:**

   The Chemistry Department has no plans to offer CHEM 314 in the future.

5. **Effect on completion of major/minor sequence:**
   None

6. **Proposed term for implementation:**
   First available

7. **Dates of prior committee approvals:**

Department of Chemistry	**10/4/2019**
Ogden College Curriculum Committee	
Professional Education Council (if applicable)	N/A
General Education Committee (if applicable)	N/A
Undergraduate Curriculum Committee	
University Senate	

Geol 415

University Undergraduate Curriculum Proposal Checklist

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

☑ For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.

N/A

☑ What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

N/A

☐ If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

☑ Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Fredrick D. Siewers — Digitally signed by Fredrick D. Siewers Date: 2019.10.28 10:48:14 -05'00'

Department Head

Dean or Designee

Date

Date

Proposal Date: 9/23/19

Ogden College of Science and Engineering
Department of Geography and Geology
Proposal to Revise Course Title
(Consent Item)

Contact Person: Nahid Gani, Email: nahid.gani@wku.edu, Phone: 270-745-2813

1. **Identification of proposed course:**
   - 1.1 Course prefix (subject area) and number: GEOL 415
   - 1.2 Course title: ENVIRONMENTAL GEOLOGY
   - 1.3 Credit Hours: 3

2. **Proposed course title:** APPLIED ENVIRONMENTAL GEOLOGY

3. **Proposed abbreviated course title:** APPLIED ENVIRONMENTAL GEOLOGY
   (maximum of 30 characters/spaces)

4. **Rationale for the revision of course title:** The Geology Program has proposed a new lower-level course: GEOL 250 - ENVIRONMENTAL GEOLOGY. This is an introductory environmental geology course, which will be a required common-core course for the currently transforming B.S. program (Geosciences) at the Department of Geography and Geology. Therefore, the existing GEOL 415 (Environmental Geology), taught at the upper-level with an applied-focus, has been proposed to be renamed as APPLIED ENVIRONMENTAL GEOLOGY.

5. **Proposed term for implementation:** Fall 2020

6. **Dates of prior committee approvals:**

Department/ Unit: Geography and Geology	**9/27/19**
Ogden College Curriculum Committee	_____
Undergraduate Curriculum Committee	_____
University Senate	_____

PHYS 318

University Undergraduate Curriculum Proposal Checklist

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

☑ For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.

SEAS, ME (Chris Byrne), EE (Mark Cambron) 10-22-2019

☑ What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

None

☐ If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

☑ Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Carini, Michael Digitally signed by Carini, Michael
DN: cn=Carini, Michael, o=Western Kentucky University, ou=Physics and Astronomy, email=mike.carini@wku.edu, c=US
Date: 2019.10.24 17:10:58 -05'00'

Department Head

Dean or Designee

Date

Date

Proposal Date: 10/21/2019

Ogden College of Science and Engineering
Department of Physics and Astronomy
Proposal to Revise Course Prerequisites/Corequisites
(Consent Item)

Contact Person: Doug Harper, doug.harper@wku.edu, 745-6194

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: PHYS 318
   - 1.2 Course title: Data Acquisition Using LabVIEW

2. **Current prerequisites/corequisites/special requirements:**
   PHYS 265 or permission of instructor

3. **Proposed prerequisites/corequisites/special requirements:**
   PHYS 301 or ME 310 or EE 211 with grade of C or better, or permission of instructor.

4. **Rationale for the revision of prerequisites/corequisites/special requirements:**

   PHYS 318 students need to be fluent with designing and building basic circuits to provide signal conditioning for the measurements they will make with various sensors. The course is taken by a variety of majors with physics, mechanical engineering, and electrical engineering being the most common. The original prerequisite was chosen as a course that was common to all of these students. However, students need more experience than is provided in PHYS 265. The chosen courses (PHYS 301, ME 310, and EE 211) will provide adequate familiarization with electrical measurements for students to be successful in PHYS 318. The permission of instructor option will be used for the rare occasion when students from disciplines other than physics, mechanical engineering or electrical engineering desire to take the course.

5. **Effect on completion of major/minor sequence:**
   This change will have no effect on the completion of the major sequence for PHYS, ME, or EE majors. The new prerequisite courses are all required courses in the respective majors and can easily be taken before taking PHYS 318 as a junior or senior.

6. **Proposed term for implementation:** Fall 2020

7. **Dates of prior committee approvals:**

Department of Physics and Astronomy	**10/23/2019**
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

AMS 217

University Undergraduate Curriculum Proposal Checklist

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

☑ For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.

The department chair of Chemistry (Dr. Stuart Burris) was contacted on 04.01.2019.

☑ What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

Estimated initial impact is approximately 5-10 students per year and 20 per year ther

☐ If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

☑ Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Stacy Wilson Digitally signed by Stacy Wilson Date: 2019.10.28 11:29:56 -05'00'

Department Head

Dean or Designee

Date

Date

Proposal Date: August 15, 2019

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

Contact Person: Mark Doggett, mark.doggett@wku.edu, 270-745-6951

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: AMS 217
   - 1.2 Course title: Industrial Materials

2. **Current prerequisites:**
   - 2.1 Prerequisite: MATH 116 with a grade of "C" or better, or MATH 117 or better

3. **Proposed prerequisites:**
   - 3.1 Prerequisite: MATH 116 with a grade of "C" or better, or MATH 117 or better and CHEM 105/106 or CHEM 120/121

4. **Rationale for the revision of prerequisites/corequisites:**
   Historically, students in the class are not prepared on the chemistry-related portion of material science. A fundamental knowledge on the chemistry of materials will result in better student performance in the class.

   This change aligns with current knowledge expectations in industry, the accreditation board, and in the School of Engineering and Applied Sciences.

   The Chemistry Dept Chair was contacted on 8/15/2019 and approved this change. Approximately 50 students per year will be affected.

5. **Effect on completion of major/minor sequence:**
   Students who have not completed the course by spring 2020 will be required to take the new prerequisites.

6. **Proposed term for implementation:** Fall 2020

7. **Dates of prior committee approvals:**

School of Engineering and Applied Sciences	**9/27/19**
Ogden College Curriculum Committee	
University Senate	

CE 303

University Undergraduate Curriculum Proposal Checklist

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

✓ For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.

ARCHITECTURAL SCIENCE - 8/13/19 MS. SHAHNAZ ALI

CONSTRUCTION MANAGEMENT 8/13/19 DR. BASHAR HADDAD

✓ What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

NONE

✓ If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

✓ Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Department Head

10/7/19
Date

Dean or Designee

Date

September 13, 2019

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

Contact Person: Jason Wilson, Jason.Wilson@wku.edu, 745-2322

1. **Identification of course:**
   1.1 Course prefix (subject area) and number: CE 303
   1.2 Course title: Construction Management

2. **Current prerequisites/corequisites:**
   Prerequisite(s): MATH 117 or higher (may be taken concurrently), Sophomore Standing.
   Corequisite(s): CE 304.

3. **Proposed prerequisites:**
   Prerequisite(s): MATH 117 or higher (may be taken concurrently), Sophomore Standing.

4. **Rationale for the revision of prerequisites/corequisites:**
   Historically, this course has been a co-requisite with CE 303. Overtime, it has become apparent that a lab in this area is redundant. Both CE 303 and CE 304 are required for Civil Engineering, Construction Management, and Architectural Science programs. Faculty in all areas are in agreement that this lab is not needed for these programs.

5. **Effect on completion of major/minor sequence:**
   None

6. **Proposed term for implementation:**
   Soonest Possible

7. **Dates of prior committee approvals:**

School of Engineering and Applied Sciences	9/13/19
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

University Undergraduate Curriculum Proposal Checklist CHEM 304 Multiple Revisions

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

X For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.

Discussions were had and emails were exchanged with Karen Mason and Heather Payne-Emerson (Nutrition/Dietetics Minor advisors) and Gary English & Grace Lartey (Health Science major advisors) in November 2018. They agreed to the change in the description of the content coverage and welcomed the change in credit hours.

X What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

There are no budget implications.
Scheduling of the course at a 3-credit course will be simpler/easier than as a 4-credit course, as it will more readily fit the available time blocks. The change will not significantly impact student credit hour production, as the enrollment is relatively low (~20 per year).

N/A If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

X Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Stuart Burris Digitally signed by Stuart Burris Date: 2019.09.18 15:01:14 -05'00'

Department Head

Dean or Designee

Date

Date

Proposal Date: 09/05/2019

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

Contact Person: Jeremy B. Maddox, jeremy.maddox@wku.edu, 5-8725

1. Identification of course:

1.1 Current course prefix (subject area) and number: CHEM 304

1.2 Course title: Biochemistry for the Health Sciences

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:

A brief treatment of organic chemistry is used as an introduction to carbohydrates, lipids, proteins and nucleic acids emphasizing their functional roles in the biological system. Specific topics will include bioenergetics, enzymes, acid-base balance, hematology and immunology. The course is offered specifically for students in the four-year nursing program, but is also recommended for students in physical education, recreation, health and safety and other disciplines dealing with human health. This course does not count toward a major or minor in biology or chemistry.

5.2 Proposed course catalog listing:

A brief treatment of organic chemistry is used as an introduction to carbohydrates, lipids, proteins and nucleic acids emphasizing their functional roles in the biological system. Specific topics will include bioenergetics, enzymes, and acid-base balance. This course does not count toward a major or minor in biology or chemistry.

5.3 Rationale for revision of course catalog listing:

The population of the course has shifted over several years from mostly nursing students (who are no longer required to take the course) to mostly dietetics students. The hematology and immunology parts of this course have become less relevant and are no longer taught. The course description is being adjusted to reflect the coverage changes that have gradually occurred over time.

6. Revise course credit hours:

6.1 Current course credit hours: 4

6.2 Proposed course credit hours: 3

6.3 Rationale for revision of course credit hours:

As noted above, the population of the course has shifted over several years from mostly nursing students, who would come to the course with only CHEM 109 (4 credit hrs with no lab) as preparation, to mostly dietetics students who have CHEM 105, 106, 107, & 108 (6 classroom credit hours and 2 lab credit hours) as preparation. That necessitates less time in general being needed for review of general and introductory organic chemistry. This is coupled with small changes over time in the relevant material such that 4 credit hours is no longer needed or appropriate to the content of the course. Additionally, discussion with the main stakeholders in the course (Nutrition/Dietetics) resulted in agreement that it would be beneficial to reduce the course hours from 4 credit to 3 such that it only covers one scheduling block.

7. Revise schedule type:

7.1 Current schedule type:

7.2 Proposed schedule type:

7.3 Rationale for revision of schedule type:

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:

First available

11. Dates of prior committee approvals:

Department of Chemistry	**9/6/2019**
Ogden College Curriculum Committee	
Professional Education Council (if applicable)	N/A
General Education Committee (if applicable)	N/A
Undergraduate Curriculum Committee	
University Senate	

University Undergraduate Curriculum Proposal Checklist

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

x For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.
No anticipated impact outside of the department.

x What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

None

N/A If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

x Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Department Head	Dean or Designee
10/17/2019 Date	Date

Proposal Date: 09/11/2019

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

Contact Person: Jeremy B. Maddox, jeremy.maddox@wku.edu, 5-8725

1. Identification of course:

1.1 Current course prefix (subject area) and number: CHEM 320

1.2 Course title: PRINCIPLES OF INORGANIC CHEMISTRY

2. Revise course title:

2.1 Current course title: PRINCIPLES OF INORGANIC CHEMISTRY

2.2 Proposed course title: INORGANIC CHEMISTRY I

2.3 Proposed abbreviated title: INORGANIC CHEMISTRY I

2.4 Rationale for revision of course title:
Both CHEM 320 and CHEM 420 cover inorganic chemistry and are required for students pursuing the American Chemical Society (ACS) approved degree concentation. CHEM 320 is a foundation-level course. CHEM 420 is an in-depth course. The general, biochemistry, organic, and physical chemistry sequences also follow a I and II format, and the proposed revision is consistent with these designations.

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:
A treatment of the usual topics in theoretical inorganic chemistry presented at a level not requiring calculus.

5.2 Proposed course catalog listing:
Introduction to the foundational principles of inorganic chemistry: atomic and molecular structure, periodicity, bonding, ionic substances, main group and transition metal chemistry.

5.3 Rationale for revision of course catalog listing:
The proposed description identifies CHEM 320 as a foundation-level inorganic chemistry course, and succinctly specifies the topics covered.

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:

7.2 Proposed schedule type:

7.3 Rationale for revision of schedule type:

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:

First available

11. Dates of prior committee approvals:

Department of Chemistry	**10/4/2019**
Ogden College Curriculum Committee	
Professional Education Council (if applicable)	
General Education Committee (if applicable)	N/A
Undergraduate Curriculum Committee	
University Senate	

CHEM 420 Multiple Revisions

University Undergraduate Curriculum Proposal Checklist

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

x For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.
No anticipated impact outside of the department.

x What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

None

N/A If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

x Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Department Head	Dean or Designee
10/17/2019 Date	Date

Proposal Date: 09/11/2019

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

Contact Person: Jeremy B. Maddox, jeremy.maddox@wku.edu, 5-8725

1. Identification of course:

1.1 Current course prefix (subject area) and number: CHEM 420

1.2 Course title: INORGANIC CHEMISTRY

2. Revise course title:

2.1 Current course title: INORGANIC CHEMISTRY

2.2 Proposed course title: INORGANIC CHEMISTRY II

2.3 Proposed abbreviated title: INORGANIC CHEMISTRY II

2.4 Rationale for revision of course title:

Both CHEM 320 and CHEM 420 cover inorganic chemistry and are required for students pursuing the American Chemical Society (ACS) approved degree concentation. CHEM 320 is a foundation-level course. CHEM 420 is an in-depth course. The general, biochemistry, organic, and physical chemistry sequences also follow a I and II format, and the proposed revision is consistent with these designations.

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:

A study of such topics as atomic structure, molecular structure, bonding theory, ionic substances, electron deficient compounds, acid-base theory, coordination chemistry, and organometallic chemistry.

5.2 Proposed course catalog listing:

Advanced study of inorganic chemistry: molecular symmetry and applications, covalent bonding and molecular orbital, ionic bonding and solid state chemistry, acid-base theory, coordination chemistry, and organometallic chemistry.

5.3 Rationale for revision of course catalog listing:

The proposed description identifies CHEM 420 as an advanced inorganic chemistry course, and succinctly specifies the topics covered.

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:
7.2 Proposed schedule type:
7.3 Rationale for revision of schedule type:

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:

First available

11. Dates of prior committee approvals:

Department of Chemistry	**10/4/2019**
Ogden College Curriculum Committee	
Professional Education Council (if applicable)	N/A
General Education Committee (if applicable)	N/A
Undergraduate Curriculum Committee	
University Senate	

CHEM 430 Multiple Revisions

University Undergraduate Curriculum Proposal Checklist

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

x For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.
No anticipated impact outside of the department.

x What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

None

N/A If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

x Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Department Head	Dean or Designee
10/17/2019 Date	Date

Proposal Date: 09/19/2019

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

Contact Person: Jeremy B. Maddox, jeremy.maddox@wku.edu, 5-8725

1. Identification of course:

1.1 Current course prefix (subject area) and number: CHEM 430

1.2 Course title: FORENSIC CHEMISTRY

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)

Prerequisites: CHEM 314 or 340 and CHEM 330 with a grade of "C" or better.

4.2 Proposed prerequisites/corequisites/special requirements:

Prerequisites: CHEM 330 and CHEM 340 with a grade of "C" or better.

4.3 Rationale for revision of course prerequisites/corequisites/special requirements:

The Department has no plans to offer CHEM 314 in the future. The proposed revision removes the option to use CHEM 314 as a prerequisite.

4.4 Effect on completion of major/minor sequence:

None

5. Revise course catalog listing:

5.1 Current course catalog listing:

A study of the methods and instrumentation used in the crime laboratory and in the medical technology laboratory. Topics discussed will include drugs, blood enzymes, organic and inorganic analysis, gunshot residue, fingerprints, chromatography, spectrophotometry, electrochemistry and electrophoresis. Course Fee

5.2 Proposed course catalog listing:

A study of the methods and instrumentation used in the crime laboratory. Topics discussed may include metrology, drug analysis, toxicology, firearms and explosives, trace evidence analysis, and fingerprints. Laboratory work is a significant portion of the course. Course Fee

5.3 Rationale for revision of course catalog listing:

The proposed revision shortens the catalog listing and improves clarity. It also explicitly states that schedule type as a combined lecture/laboratory.

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:
7.2 Proposed schedule type:
7.3 Rationale for revision of schedule type:

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:

First available

11. Dates of prior committee approvals:

Department of Chemistry	**10/4/2019**
Ogden College Curriculum Committee	
Professional Education Council (if applicable)	N/A
General Education Committee (if applicable)	N/A
Undergraduate Curriculum Committee	
University Senate	

CHEM 435 Multiple Revisions

University Undergraduate Curriculum Proposal Checklist

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

x For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.
No anticipated impact outside of the department.

x What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

None

N/A If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

x Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Department Head	Dean or Designee
10/17/2019 Date	Date

Proposal Date: 09/19/2019

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

Contact Person: Jeremy B. Maddox, jeremy.maddox@wku.edu, 5-8725

1. Identification of course:

1.1 Current course prefix (subject area) and number: CHEM 435

1.2 Course title: INSTRUMENTAL ANALYSIS

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)

Prerequisites: CHEM 330 and CHEM 340 with a grade of "C" or better. Corequisite: CHEM 346

4.2 Proposed prerequisites/corequisites/special requirements:

Prerequisites: CHEM 330 and CHEM 340 with a grade of "C" or better. Corequisite: CHEM 436

4.3 Rationale for revision of course prerequisites/corequisites/special requirements:

The proposed revision corrects a typographical error in the corequisite. CHEM 346 should read CHEM 436; there is no CHEM 346.

4.4 Effect on completion of major/minor sequence:

None

5. Revise course catalog listing:

5.1 Current course catalog listing:

A course in modern instrumental methods of analysis including spectroscopic, electroanalytical and chromatographic techniques. Course Fee

5.2 Proposed course catalog listing:

An in-depth course in modern instrumental methods of analysis including spectroscopic, chromatographic and electroanalytical techniques.

5.3 Rationale for revision of course catalog listing:

The proposed revision clarifies that this an in-depth course in analytical chemistry. The course fee should be dropped from the description, and eventually transferred to the corequisite lab course CHEM 436.

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:
7.2 Proposed schedule type:
7.3 Rationale for revision of schedule type:

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:

First available

11. Dates of prior committee approvals:

Department of Chemistry	**10/4/2019**
Ogden College Curriculum Committee	
Professional Education Council (if applicable)	N/A
General Education Committee (if applicable)	N/A
Undergraduate Curriculum Committee	
University Senate	

CHEM 450 Multiple Revisions

University Undergraduate Curriculum Proposal Checklist

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

x For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.
No anticipated impact outside of the department.

x What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

None

N/A If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

x Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Department Head	Dean or Designee
10/17/2019 Date	Date

Proposal Date: 09/11/2019

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

Contact Person: Jeremy B. Maddox, jeremy.maddox@wku.edu, 5-8725

1. Identification of course:

1.1 Current course prefix (subject area) and number: CHEM 450

1.2 Course title: PHYSICAL CHEMISTRY I

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)

A grade of "C" or better in CHEM 314 or 340; CHEM 330; MATH 136, PHYS 231 or 255. Corequisite: CHEM 451.

4.2 Proposed prerequisites/corequisites/special requirements:

A grade of "C" or better in CHEM 340; CHEM 330; MATH 136, PHYS 231 or 255. Corequisite: CHEM 451.

4.3 Rationale for revision of course prerequisites/corequisites/special requirements:

The Department has no plans to offer CHEM 314 in the future. The proposed revision removes CHEM 314 from the prerequisities.

4.4 Effect on completion of major/minor sequence:

None

5. Revise course catalog listing:

5.1 Current course catalog listing:

A detailed study of the fundamental principles and models describing the physical and chemical properties of matter at both the microscopic and macroscopic levels. Selected

topics may include thermodynamics and equilibria, the kinetic theory of gases, transport properties, chemical kinetics, introductory quantum mechanics, spectroscopy, statistical thermodynamics, and interdisciplinary applications.

5.2 Proposed course catalog listing:

A detailed study of the fundamental principles and models describing the physical and chemical properties of matter at both the microscopic and macroscopic levels. Selected topics include thermodynamics and equilibria, the kinetic theory of gases, transport properties, chemical kinetics, and interdisciplinary applications.

5.3 Rationale for revision of course catalog listing:

Past revisions to the chemistry program necessitate explicitly designating which physical chemistry topics will be covered in CHEM 450. Simiarly, an accompanying proposal designates which topics will be covered in CHEM 452 Physical Chemistry I.

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:
7.2 Proposed schedule type:
7.3 Rationale for revision of schedule type:

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:

First available

11. Dates of prior committee approvals:

Department of Chemistry	**10/4/2019**
Ogden College Curriculum Committee	
Professional Education Council (if applicable)	
General Education Committee (if applicable)	N/A
Undergraduate Curriculum Committee	
University Senate	

Geol 112

University Undergraduate Curriculum Proposal Checklist

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

☑ For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.

N/A

☑ What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

N/A

☐ If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

☑ Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Fredrick D. Siewers

Digitally signed by Fredrick D. Siewers
Date: 2019.10.28 10:50:37 -05'00'

Department Head

Dean or Designee

Date

Date

Proposal Date: 9/23/19

Ogden College of Science and Engineering
Department of Geography and Geology
Proposal to Make Multiple Revisions to a Course
(Action Item)

Contact Person: M. Royhan Gani, Email: royhan.gani@wku.edu, Phone: 270-745-5977

1. **Identification of course:**
   - 1.1 Current course prefix (subject area) and number: GEOL 112
   - 1.2 Course title: EARTH HISTORY

2. **Revise course title:**
   - 2.1 Current course title: EARTH HISTORY
   - 2.2 Proposed course title: EARTH'S PAST AND FUTURE
   - 2.3 Proposed abbreviated title: EARTH'S PAST AND FUTURE
   - 2.4 Rationale for revision of course title: The revised title better reflects the course content and objectives, emphasizing the need to understand our planet's deep history to prepare for future global challenges.

3. **Revise course number:** N/A
   - 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:** N/A
   - 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: Geologic study of the Earth's history: major land, sea, and life patterns throughout geologic time. Topics include the development of geology as a science, nature and significance of the fossil record, basic stratigraphic relations, theories concerning the origin of Earth and the solar system, prehistoric life, paleogeography, and global tectonics. Students electing to meet their general education laboratory requirement through GEOL 114 must simultaneously enroll in the GEOL 112 lecture course. The associated laboratory is required for Geology majors, minors and some prospective science teachers, but is optional for most others.
   - 5.2 Proposed course catalog listing: Deep time study of Earth, life, and climate to understand how the planet – our only home – has changed in the past and what this means for the future of human species. Students electing to meet their general education laboratory requirement through GEOL 114 must simultaneously enroll in GEOL 112. Laboratory (GEOL 114) is required for Geology majors and some prospective science teachers, but is optional for most others.
   - 5.3 Rationale for revision of course catalog listing: To make it concise and to emphasize the importance of the course to understand the context of emerging global challenges.

6. **Revise course credit hours:** N/A
   - 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:** N/A
   - 7.1 Current schedule type:
   - 7.2 Proposed schedule type:
   - 7.3 Rationale for revision of schedule type:

8. **Revise grade type:** N/A
   - 8.1 Current grade type:
   - 8.2 Proposed grade type:
   - 8.3 Rationale for revision of grade type:

10. **Proposed term for implementation:** Fall 2020

11. **Dates of prior committee approvals:**

Department/ Unit: Geography and Geology	**9/27/19**
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Geol 114

University Undergraduate Curriculum Proposal Checklist

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

☑ For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.

N/A

☑ What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

N/A

☐ If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

☑ Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Fredrick D. Siewers — Digitally signed by Fredrick D. Siewers Date: 2019.10.28 10:49:32 -05'00'

Department Head

Dean or Designee

Date

Date

Proposal Date: 9/23/19

Ogden College of Science and Engineering
Department of Geography and Geology
Proposal to Make Multiple Revisions to a Course
(Action Item)

Contact Person: M. Royhan Gani, Email: royhan.gani@wku.edu, Phone: 270-745-5977

1. **Identification of course:**
   - 1.1 Current course prefix (subject area) and number: GEOL 114
   - 1.2 Course title: EARTH HISTORY LAB

2. **Revise course title:**
   - 2.1 Current course title: EARTH HISTORY LAB
   - 2.2 Proposed course title: EARTH'S PAST AND FUTURE LAB
   - 2.3 Proposed abbreviated title: EARTH'S PAST AND FUTURE LAB
   - 2.4 Rationale for revision of course title: The revised title better reflects the course content and objectives, emphasizing the need to understand our planet's deep history to prepare for future global challenges.

3. **Revise course number:** N/A
   - 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:** N/A
   - 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: Laboratory work designed to accompany GEOL 112. Sedimentary rocks, fossil specimens, stratigraphic concepts and geologic maps are studied. This laboratory is required for Geology majors and minors and some prospective science teachers, but is optional for most other students. Course Fee.
   - 5.2 Proposed course catalog listing: Laboratory to accompany GEOL 112, which is a deep time study of Earth, life, and climate. This laboratory is required for Geology majors and some prospective science teachers, but is optional for most other students. Course Fee.
   - 5.3 Rationale for revision of course catalog listing: To make it concise and to reflect corresponding changes in GEOL 112 listing.

6. **Revise course credit hours:** N/A
   - 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:** N/A

7.1 Current schedule type:
7.2 Proposed schedule type:
7.3 Rationale for revision of schedule type:

8. Revise grade type: N/A
8.1 Current grade type:
8.2 Proposed grade type:
8.3 Rationale for revision of grade type:

10. Proposed term for implementation: Fall 2020

11. Dates of prior committee approvals:

Department/ Unit: Geography and Geology	**9/27/19**
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

GEOL 250

University Undergraduate Curriculum Proposal Checklist

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

☑ For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.

B.S. in Environmental Health Science (#548) offer ENV 280: Introduction to Environmental Science. Dr. Ritchie Taylor (Director of Environmental and Occupational Health Science Programs) was contacted (on 9/23/19) regarding this new course proposal, and no conflict was identified.

☑ What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

The proposed course will be staffed by existing faculty of the department. No adjustments will be necessary to current staffing patterns or teaching loads to accommodate this new course.

☐ If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

☑ Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Fredrick D. Siewers — Digitally signed by Fredrick D. Siewers Date: 2019.10.28 10:51:47 -05'00'

Department Head

Dean or Designee

Date

Date

(Action Item) Proposal Date: 9/23/19

Proposal to Create a New Course:
Ogden College of Science and Engineering
Department/Unit: Geography and Geology

Section 1: Proponent Contact Information

1.1 Name/Title: Nahid Gani, Associate Professor
1.2 Email address: nahid.gani@wku.edu
1.3 Phone: 270-745-2813

Section 2: Course Catalog Information

2.1 Course prefix (subject area) and number: GEOL 250

2.2 Course CIP code: 40.0601

2.3 Course title: ENVIRONMENTAL GEOLOGY

2.4 Abbreviated Course title: ENVIRONMENTAL GEOLOGY

2.5 Credit hours/Variable credit: 3

2.6 Repeatability: N/A

2.7 Course Term: Is this course intended to span more than a single term?

NO

2.8 Course Catalog Description: Survey of geologic principles in relation to environmental problems arising from human actions. Topical environmental issues controlled by whole Earth processes, and the use of geologic knowledge in their remediation will be investigated.

2.9 Prerequisite/Corequisites/Restrictions: N/A

2.10 Additional Enrollment Requirements: N/A

2.11 Other Special Course Requirements: N/A

2.12 Grade Type: Standard letter grade.

2.13 Schedule Type: Lecture

Section 3: Description of proposed course

3.1 Course Content Summary: This course is designed to provide fundamental knowledge to understand the interaction between human and their living environments. Various internal and external Earth's processes that influence planet's environments are examined. Lectures, quizzes, topical exercises, and group-activities will be used to explore and assess the course content. Topics include: The Solid Earth internal and surficial processes; Humans, geology, and the environment; The earth systems and environmental changes; Geological resources and society; Energy and environment; Waste management and geology; Environmental pollutions and human impact; Impact of geologic hazards and ecosystems; hydrologic hazard; Environment and human health; Impact of extraterrestrial objects; Land-use planning; and Environment and society.

3.2 Learning Outcomes: Upon successfully completing this course, students will be able to:

- Analyze the dynamic behavior of the Earth that contributes to our changing environments.
- Evaluate human effect on geological environments.
- Examine the link between geo-environmental processes and human health.
- Analyze geological data necessary to improve our living environments.
- Make effective decisions in solving environmental problems.

3.3 Assessment/Evaluation: A number of quizzes, exams (at least three), and exercises will be utilized in assessing student's achievement of the proposed learning goals. Interactive group activities on topical environmental issues will also constitute part of the performance measure.

Section 4: Rationale

4.1 Reason for developing this proposed course:

Today, Earth's environmental change is at its highest profile, highlighting a paramount concern to our society. This change is significantly affected by the action from Earth's expanding population for their increased use of natural resources and increased production of waste and pollutants. Therefore, understanding the interplay between Earth's geologic processes and growing population is the prime for the investigation of environmental issues, analysis and management. This course will prepare students with the foundational environmental geology knowledge for improving and remediating the environment as a habitat for life on Earth. Although there are introductory environmental science courses available at WKU, the proposed course is the first introductory environmental geology course at WKU. The proposed course will also be a required common-core course for the currently transforming B.S. program (Geosciences) at the Department of Geography and Geology.

4.2 Relationship to similar courses offered by other university departments/units:

- Do any other courses already being offered by other university departments/units share content with this proposed course? YES
- Are any of the proposed pre/co-requisites for this course offered by another university department/unit? NO
- If the answer to both questions is NO, simply proceed to item 5.
- If the answer to either of those questions is YES, indicate here who in the affected departments/units was consulted, and the dates of those consultations:

  B.S. in Environmental Health Science (#548) offer ENV 280: Introduction to Environmental Science. The proposed course differs significantly from ENV 280 due to its (GEOL 250) focus on environmental problems controlled by whole Earth processes, and the use of geologic knowledge in their remediation. Dr. Ritchie Taylor (Director of Environmental and Occupational Health Science Programs) was contacted (on 9/23/19) regarding the proposal of this new course, and no conflict was identified.

Section 5: Projected Enrollments/Resources

5.1 How many students per section are expected to enroll in this proposed course?

40 students.

5.2 How many sections of this course per academic year will be offered?

Two sections per year.

5.3 How many students per academic year are expected to enroll?

80 students.

5.4 How were these projections calculated? Explain any supporting evidence/data you have for arriving at these projections.

The department of Geography and Geology currently has around 185 majors. The proposed course will be a required common-core course for the currently transforming B.S. program (Geosciences), which will likely have around 115 majors. Moreover, many non-majors beyond the department have an explicit desire to understand Earth's environmental changes and issues.

5.5 Proposed method of staffing:
The proposed course will be staffed by existing faculty of the department. No adjustments will be necessary to current staffing patterns or teaching loads to accommodate this new course.

5.6 Instructional technology resources:
The department's current instructional technology resources are sufficient to support this course.

5.7 Library resources: Will this proposed course require the use of library resources (books, journals, reference materials, audio-visual materials, electronic databases, etc.)? NO

Section 6: Proposed term for implementation: Fall 2020

Section 7: Supplemental/Supporting Documentation: N/A

Geol 301

University Undergraduate Curriculum Proposal Checklist

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

☑ For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.

N/A

☑ What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

The proposed course will be staffed by existing faculty of the department. No adjustments will be necessary to current staffing patterns or teaching loads to accommodate this new course.

☐ If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

☑ Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Fredrick D. Siewers — Digitally signed by Fredrick D. Siewers Date: 2019.10.28 10:46:42 -05'00'

Department Head

Dean or Designee

Date

Date

(Action Item) **Proposal Date:** 10/03/19

Proposal to Create a New Course:
Ogden College of Science and Engineering
Department/Unit: Geography and Geology

Section 1: Proponent Contact Information

1.1 Name/Title: M. Royhan Gani, Associate Professor
1.2 Email address: royhan.gani@wku.edu
1.3 Phone: 270-745-5977

Section 2: Course Catalog Information

2.1 Course prefix (subject area) and number: GEOL 301

2.2 Course CIP code: 40.0601

2.3 Course title: GEOLOGY AND CLIMATE: PAST AND FUTURE

2.4 Abbreviated Course title: GEOLOGY AND CLIMATE

2.5 Credit hours/Variable credit: 3

2.6 Repeatability: N/A

2.7 Course Term: Is this course intended to span more than a single term?

NO

2.8 Course Catalog Description: Survey of Earth's past climate changes, the present state, and what these mean for the future of our planet – our only home. Factors and processes that influence Earth's climate over a variety of timescales are examined.

2.9 Prerequisite/Corequisites/Restrictions: GEOG/GEOL 103 OR GEOL 111 OR GEOL 112 OR permission of instructor

2.10 Additional Enrollment Requirements: N/A

2.11 Other Special Course Requirements: N/A

2.12 Grade Type: Standard A-F final grade.

2.13 Schedule Type: Lecture

Section 3: Description of proposed course

3.1 Course Content Summary: This course is a survey of Earth's paleoclimate changes and what these mean for the future of our planet – our only home. Factors and processes that influence paleoclimate over a variety of timescales are examined. Lectures, exercises, and group-discussions will be used to explore the course content. Topics include:

- Introduction: Geology and climate
- Component of paleoclimate systems
- Geological archives, data, and models to understand paleoclimate
- Past CO_2 fluctuations and long-term climate
- Plate tectonics and paleoclimate
- Greenhouse versus Icehouse paleoclimate
- Astronomical control on paleoclimate
- Paleo-monsoons
- Glacial/Deglacial cycles of the Quaternary
- Humans and preindustrial climate
- Causes of recent warming
- Future climatic changes.

3.2 Learning Outcomes: After successfully completing this course, students should be able to:

- Analyze paleoclimate archives and data
- Examine long-term versus short-term paleoclimate changes
- Evaluate the magnitude of Earth's past CO_2 fluctuations
- Scrutinize factors that influence paleoclimate systems
- Assess the type of future climate disruptions

3.3 Assessment/Evaluation: Students will be given weekly assignments to complete that involve readings, online videos, and exercises. Students will be required to take quizzes and three exams. Class presentations will also be part of the evaluation process.

Section 4: Rationale

4.1 Reason for developing this proposed course: Climate change is reshaping our daily conversation in every sector of society. Why and how the Earth's paleoclimate has changed through time and what this means for the future is an important part of that conversation. The proposed course will prepare students for careers related to climate and environmental jobs, as well as help them become mindful citizens. Students will gain the ability to assess climate risks from the local to global scale and from the short to long term.

4.2 Relationship to similar courses offered by other university departments/units:

- Do any other courses already being offered by other university departments/units share content with this proposed course? NO
  (Note: our Department has an integrated set of complementary courses on climate that differ in temporal, spatial, theoretical, and empirical approaches.

These courses are GEOG 385: Society, resources, and climate; GEOG 455: Global climate change; METR 322: Global climate system; and GEOL 315: Energy, climate, and carbon. The proposed course, with little duplication of content with these existing courses, is a complementary addition to this climate set, offering a deep-time perspective on Earth's climate.)

- Are any of the proposed pre/co-requisites for this course offered by another university department/unit? NO
- If the answer to both questions is NO, simply proceed to item 5.
- If the answer to either of those questions is YES, indicate here who in the affected departments/units was consulted, and the dates of those consultations:

Section 5: Projected Enrollments/Resources

5.1 How many students per section are expected to enroll in this proposed course?

30 students.

5.2 How many sections of this course per academic year will be offered?

One section per year.

5.3 How many students per academic year are expected to enroll?

30 students.

5.4 How were these projections calculated? Explain any supporting evidence/data you have for arriving at these projections.

Many of our majors in the department, and many of the non-majors enrolled in the lower-level courses offered by the department, have an explicit interest in climate change generally. However, the proposed course would serve primarily as an upper-level elective for Geology students (around 50) majoring within the soon-to-be transformed integrated B.S. program.

5.5 Proposed method of staffing:

The course proposed will be staffed by existing faculty of the Department, without any adjustments to current staffing patterns or teaching loads.

5.6 Instructional technology resources:

The Department's current instructional technology resources are sufficient to support this course.

5.7 Library resources: Will this proposed course require the use of library resources (books, journals, reference materials, audio-visual materials, electronic databases, etc.)?
NO (current resources are sufficient)

Section 6: Proposed term for implementation: Fall 2020

Section 7: Supplemental/Supporting Documentation: N/A

PHYS 363

University Undergraduate Curriculum Proposal Checklist

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

☑ For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.

Discussed course with Jannai Shields from Philosophy and Religion on 9/19; teaches

☑ What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

Current staff will be used. Physics already teaches many Colonnade courses.

☐ If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

☑ Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Carini, Michael Digitally signed by Carini, Michael DN: cn=Carini, Michael, o=Western Kentucky University, ou=Physics and Astronomy, email=mike.carini@wku.edu, c=US Date: 2019.10.28 12:23:16 -05'00'

Department Head

Dean or Designee

Date

Date

(Action Item)

Proposal to Create a New Course: PHYS 363
Ogden College
Department/Unit: Physics and Astronomy

Section 1: Proponent Contact Information

1.1 Name/Title: Scott Bonham
1.2 Email address: scott.bonham@wku.edu
1.3 Phone #: 745-6196

Section 2: Course Catalog Information

2.1 Course prefix (subject area) and number:

2.2 Course CIP code: 30.1501: Science, Technology and Society

2.3 Course title: Science Controversies: Historical and Contemporary

2.4 Abbreviated Course title: Science Controversies

2.5 Credit hours/Variable credit: 3

2.6 Repeatability: N/A

2.7 Course Term: Is this course intended to span more than a single term?
NO

2.8 Course Catalog Description: Examine the historical and contemporary scientific conflicts within their social and cultural contexts to better understand and communicate across different scientific and cultural paradigms.

2.9 Prerequisite/Corequisites/Restrictions: No specific requirements. However, since it will be offered as a Colonnade Connections course, students will be required to complete the Colonnade foundations and explorations categories before registering.

2.10 Additional Enrollment Requirements: no

2.11 Other Special Course Requirements: no

2.12 Grade Type: Standard

2.13 Schedule Type: Seminar

Section 3: Description of proposed course

3.1 Course Content Summary: Science is an integral part of our modern, technology-driven lives, yet there is often a disconnect between the practice and communication of science with the larger socio-cultural context in which

we live. Prime examples are socio-scientific controversies such as global warming, origins, genetically modified organisms, vaccinations and the like. In such situations the scientific understand is important, but so are the social and cultural perspectives of the larger society that shape the science and its reception; perspectives that do not always align with each other and can seem incomprehensible with each other. The goal of this course is to develop abilities to understand scientific work in the larger social and cultural context from multiple perspectives and communicate across them.

During the first part of the course students will study one historical scientific controversy from multiple perspectives: the science itself, the cultural context in which it happened, and social perspectives through which that was interpreted. Examples could be Galileo's trial, relativity, or the multiple shifts on the nature of light. Students will read multiple works on the topic, analyzing the science involved, the perspective of the author, and the scientific controversy itself. During the latter part of the semester, students will choose a different scientific controversy, historical or contemporary, study it from multiple perspectives and reporting their findings.

Example Reading List (for a course using the trial of Galileo as the touch stone historical example):

- Dava Sobel, *Galileo's Daughter: A Historical Memoir of Science, Faith, and Love*.
- Galileo Galilei, *Dialogue Concerning the Two Chief World Systems*.
- Christopher M. Graney, *Setting Aside All Authority: Giovanni Battista Riccioli and the Science against Copernicus in the Age of Galileo*.
- Aristotle, *On the Heavens* (selections).
- Andrew Dickson White, *A History of the Warfare of Science with Theology in Christendom* (selections).
- Sam Leith, *You Talkin' to Me? Rhetoric from Aristotle to Obama*
- Additional handouts.
- In addition, each student will study two or more books, videos or other cultural artifacts relating to another scientific controversy selected in consultation with the instructor.

3.2 Learning Outcomes:

- Identify and describe one's own socio-scientific paradigm/worldview and expertise, and reflect on how that is similar and different from others. (Analyze the development of self in relation to others and society.)
- Examine the starting assumptions, values, methods and goals of different groups in a socio-scientific controversy. (Examine diverse values that form civically engaged and informed members of society.)
- Study a controversial topic from multiple perspectives, identifying common ground and roots of differences in perspective. (Evaluate solutions to real-world social and cultural problems.)
- Analyze a historical scientific controversy, its roots, dynamics and impacts on science and society even today.

3.3 Assessment/Evaluation: Students will write several short papers and a longer, final paper in which they examine at least two artifacts (book, film, etc.) from different perspectives/paradigms on a chosen contemporary

controversy, discussing the science, paradigms, assumptions, goals and methods. Students will also make a class presentation on it.

Section 4: Rationale

4.1 Reason for developing this proposed course:Science and humanities have often been characterized as "two cultures" that are largely independent of each, and at the university level scientific material is generally taught independent of historical/philosophical/social context, and vice versa. As a result our society tends to be ill-equiped to be able to deal with the different dimensions of social-scientific controversies, retreating into like-minded tribes struggling to engage in meaningful communication with those operating out of different paradigms. The goal of this course is to develop the ability to examine both the scientific and cultural aspects of such controversies and improve ability to communicate across those differences.

This course will be offered as a Connections course in the social to cultural category, bringing together both scientific and cultural understanding, seeking to bridge the "two cultures" divide between science and humanities.

4.2 Relationship to similar courses offered by other university departments/units:

- Do any other courses already being offered by other university departments/units share content with this proposed course?

  There is some overlap with PHIL 330: Philosophy of Science.

- Are any of the proposed pre/co-requisites for this course offered by another university department/unit? NO

- If the answer to both questions is NO, simply proceed to item 5.

- If the answer to either of those questions is YES, indicate here who in the affected departments/units was consulted, and the dates of those consultations:

  Discussed this proposal on 9/19/19 with Dr. Jannai Shields from Philosophy and Religion who teaches the Philosophy of Science course. He agreed that while there is some overlap, this course would strongly complement his Philosophy of Science course.

Section 5: Projected Enrollments/Resources

5.1 How many students per section are expected to enroll in this proposed course? 20

5.2 How many sections of this course per academic year will be offered? The current department plan is to offer it once every other year (rotating with other Connections courses).

5.3 How many students per academic year are expected to enroll? 20

5.4 How were these projections calculated? Explain any supporting evidence/data you have for arriving at these projections.

This course will be offered as a Connections course; we expect it to be of particular interest to science majors as there are few science Connections courses.

5.5 Proposed method of staffing: Current staffing

5.6 Instructional technology resources: Will use standard classroom technology resources. Many days students with own laptops/tablets will be encouraged to bring them to use in class.

5.7 Library resources: Will this proposed course require the use of library resources (books, journals, reference materials, audio-visual materials, electronic databases, etc.)? YES NO

If YES, was a Library Resources Form submitted to the appropriate collection development librarian prior to consideration at the college curriculum level?

Section 6: Proposed term for implementation: Fall 2020

Section 7: Supplemental/Supporting Documentation:

Physics 363: Science Controversies

Time: TBD
Instructor: Dr. Scott Bonham
Office Hours: TBA

Location: Ogden College Hall 1003
Office: Kelly Thompson Hall 2023
Email: Scott.Bonham@wku.edu

> *Cultural conflicts are not simply products of the machinations of the warped minds of one's opponents, but rather reflect deeply embedded cultural patterns. These patterns will need to be understood and taken into account by those who are looking for non-polarizing solutions to the problems of living together peacefully.*
>
> —George Marsden

Overview

Science is an integral part of our modern, technology-driven lives, yet there is often a disconnect between the practice and communication of science with the larger socio-cultural context in which we live. Prime examples are socio-scientific controversies such as global warming, origins, genetically modified organisms, vaccinations and the like. In such situations the scientific understanding is important, but so are the social and cultural perspectives of the larger society that shape the science and its reception; perspectives that do not always align with each other and can seem incomprehensible with each other. The goal of this course is to develop abilities to understand scientific work in the larger social and cultural context from multiple perspectives and communicate across them.

Class Format

This is a seminar class, primarily driven by the readings. For the majority of the semester, each student will need to complete the assigned reading ahead of time and come to class prepared to discuss it. Preparation and active participation in the discussion is essential and will be part of the evaluation. In addition, the instructor will frequently make short presentations to provide more context, background, or explain difficult passages. During the last few weeks when you will be working on your project, there will be time for individual work, discussions about your readings with small and large groups, and individual conferences with the instructor.

Learning Objectives:

- Analyze the development of self in relation to others and society through identifying your own position on a controversial issue, reflecting on why you hold that position in terms of values, assumptions and influences, and how that relates to others.
- Examine diverse values that form civically engaged and informed members of society through analyzing the paradigms, assumptions, goals and methods of different positions on a controversial topic.
- Evaluate solutions to real-world social and cultural problems by learning to understand different perspectives, identifying common ground and roots of differences..
- Analyze a historical socio-scientific controversy, its roots, dynamics and impacts on science and society even today.

Texts

Dava Sobel, *Galileo's Daughter: A Historical Memoir of Science, Faith, and Love*
Galileo Galilei, *Dialogue Concerning the Two Chief World Systems* *
Christopher M. Graney, *Setting Aside All Authority: Giovanni Battista Riccioli and the Science against Copernicus in the Age of Galileo*
Andrew Dickson White, *A History of the Warfare of Science with Theology in Christendom* *†
Sam Leith, *You Talkin' to Me? Rhetoric from Aristotle to Obama*
Aristotle, *On the Heavens* *†
Additional articles and handouts will be posted on Blackboard.

Assignments

Over the course of the semester you will write several short papers and one significant analysis paper, on which you will also make a classroom presentation. More details and grading rubrics will be provided for these during the semester. The assignments will include:

- Metacognitive analysis of four texts: *Galileo's Daughter, Dialogue Concerning the Two Chief World Systems, Setting Aside All Authority*, and *A History of the Warfare Between Science and Theology in Christendom*. For each you will discuss who the author is (background and motivation), theme(s) and objectives of the work, assumptions, science, rhetorical approach, and choices of what was included and what was left out. (~2 pages each.)
- Comparison/contrast paper: select one component of the historical controversy treated by two or more authors and includes scientific/philosophical issues. (For example: observations of stars, of other heavenly bodies, falling of objects on a rotating sphere, etc.) You should explain the science involved (at least at a conceptual level), discuss how that is presented in the works being referred to, noting commonalities and differences, and how those presentations relate to the larger paradigm/goals of the author. (3-5 pages.)
- Analysis of at least two books, films, or other cultural artifacts focused on a historical or contemporary scientific controversy that look at it from different perspectives. Your paper and presentation will discuss the science involved, its social and cultural context, and different perspectives through which it is understood. This includes analyzing and critiquing the perspectives of the authors of the works analyzed—assumptions, paradigm, intended audience, methods, choices of what to include and what to leave out, quality of the science, rhetorical style, etc. As part of this, you will need to identify the perspective that you are operating out of and at least a brief justification for it. (10-20 pages).
- Class presentation on your study (12-15 minutes).

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* May either be downloaded from the internet (free of charge) or purchased in book form.
† Will read selections from this work.

Grading

The breakdown in the worth of each assignment is in the chart below. For each assignment, you will be provided with specific instructions and a general-level grading rubric to help you better understand the expectations.

Class participation	10%
Analysis of assigned readings (4)	5% each
Comparison/contrast paper	15%
Project proposal	5%
Final (artifact analysis) paper	40%
Class presentation	10%

Schedule of the semester

Week	Topics	Reading
1	Overview, introducing Galileo	*Galileo's Daughter*
2	Galileo's life and culture	*Galileo's Daughter*
3	The astronomical models	*Dialogue; You Talkin' to Me?*
4	Galileo's discoveries and implications	*Dialogue; You Talkin' to Me?*
5	Evaluating scientific claims	*Setting Aside All Authority; You Talkin' to Me?*
6	Cultural and philosophical underpinnings	*On the Heavens*, handouts
7	Scientific and cultural impacts	*Galileo's Daughter*; *A History of the Warfare*
8	Rhetoric and Paradigms	*A History of the Warfare*; *You Talkin' to Me?*
9	Explore different controversies and select topic	*You Talkin' to Me?*; handouts
10	Individual study/group discussions	handouts
11	Individual study/instructor conferences	Individual readings
12	Preliminary presentations	Individual readings
13	Individual study/instructor conferences	Individual readings
14	Formal student presentations	
Final	Formal student presentations	

Classroom policies

Respecting others: By the nature of this course, you will likely interact with others who may hold a different position on a topic that can significant in a person's own sense of identity. Our goal is to develop our capacity to have meaningful, productive communication across different perspectives. You are encouraged to discuss those differences and to argue for your position, but it is essential that this be done in a respectful, considerate manner, which will be discussed more during the semester. Failure to adhere to expectations will result in consequences, up to being dismissed from the class.

Attendance: Class participation is essential to this course, both for you and for your fellow students. You must attend and participate in all class sessions unless you have a good, valid reason for not being in class. If you must miss class, you should notify the instructor in advanced for previously scheduled absences and as soon as possible for unscheduled ones. You will still be responsible for finding out what went on during class and any work done.

Academic integrity is expected of all students. All work you submit must be your own. Quotes and other material from other authors must be properly cited. Significant plagiarism or relying on others to do your work for you is grounds for immediate dismissal from the course and receiving a failing grade.

Late policy: I reserve the right to refuse to accept any late assignments without a documented, valid excuse. However, in most cases I will allow it with an appropriate late penalty on the score. It is your responsibility to ask.

Disability statement: In compliance with University policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, 1074. The phone number is 270.745.5004 [270.745.3030 V/TTY] or email at sarc@wku.edu. Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center.

CE 342

University Undergraduate Curriculum Proposal Checklist

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

X For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.

NO IMPACT

X What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

NONE

X If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

✓ Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Department Head

Dean or Designee

10/7/19
Date

Date

Proposal Date: 9/19/19

Ogden College of Science and Engineering
School of Engineering and Applied Sciences
Proposal to Revise Course Credit Hours
(Action Item)

Contact Person: Jason Wilson, Jason.wilson@wku.edu, 270-745-2322

1. **Identification of course:**
   1.1 Current course prefix (subject area) and number: CE 342
   1.2 Course title: Fluid Thermal Sciences
   1.3 Credit hours: 4 credit hours

2. **Proposed course credit hours:** 3 credit hours

3. **Rationale for the revision of course credit hours:**
   Course was originally part of the joint program with University of Kentucky. There was the requirement for 16 hours to be taken remotely through UK and CE 342 (formerly CE 341) was a 4 hour class to allow for only five classes to be taken remotely instead of six 3-hour classes.

4. **Proposed term for implementation:** Fall 2020

5. **Dates of prior committee approvals:**

School of Engineering and Applied Sciences	9/13/19
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

CE432

University Undergraduate Curriculum Proposal Checklist

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

✓ For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.

No impact on other programs.

√ What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

No additional needs.

X If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

√ Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Department Head

Dean or Designee

10/7/19
Date

Date

Proposal to Create a New Course

Section 1: Proponent Contact Information

1.1 Name/Title: Kirolos Haleem/Assistant Professor of Civil Engineering
1.2 Email address: kirolos.haleem@wku.edu
1.3 Phone # 270-745-6302

Section 2: Course Catalog Information

2.1 Course prefix (subject area) and number: CE 432

2.2 Course CIP code: 52.0209

2.3 Course title: Traffic Engineering

2.4 Abbreviated Course title: Traffic Eng.

2.5 Credit hours/Variable credit: 3 credit hours

2.6 Repeatability: No

2.7 Course Term: One semester

2.8 Course Catalog Description: A study of the underlying traffic engineering theory, and use of traffic control devices (i.e., signs, traffic signals, and pavement markings) and their impact on traffic flow (or operations) and highway safety. Methods to collect and analyze traffic data are also discussed.

2.9 Prerequisite:
Prerequisite: CE 332 (Transportation Engineering)

2.10 Additional Enrollment Requirements: N/A

2.11 Other Special Course Requirements: Students will work on an in-class project, where they will conduct a field data collection at a specific signalized intersection (e.g., doing traffic counts), plus data analysis and report write-up. Appropriate WKU paperwork/approvals might be needed to send students to the field and ensure their safety.

2.12 Grade Type: Standard A-F final grade

2.13 Schedule Type: Lecture

Section 3: Description of proposed course

3.1 Course Content Summary: The course studies the underlying traffic engineering theory, and use of traffic control devices (i.e., signs, traffic signals, and pavement markings) and their impact on traffic flow (or operations) and highway safety. Methods to collect and analyze traffic data are also discussed.

Students will be invovld in an in-class project, where they will conduct field data collection at a specific signalized intersection (e.g., doing traffic counts), plus data analysis and report write-up. Students will also have hands-on experience on a traffic flow software package, e.g., the Highway Capacity Software (HCS).

Proposed topics to cover in the course:

- Road user and vehicle characteristics
- Comprehensive geometric design of highways
- Traffic control devices
- Advanced traffic flow theory
- Statistical applications in Traffic Engineering
- Traffic data collection and analysis
- Volume studies
- Speed, travel time, and delay studies
- Highway traffic safety
- Parking studies
- Uninterrupted flow facilities (basic freeways, multilane highways, weaving sections, and two-lane highways)
- Traffic markings
- Interrupted flow
- Intersection design and signalization
- Signal timing (for pre-timed and actuated signals)
- Capacity analysis at signalized intersections
- Connection between Intelligent Transportation Systems (ITS) and Traffic Engineering
- Future of transportation: connected and autonomous vehicles (CAVs)

3.2 Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. Use statistical concepts and applications in Traffic Engineering.
2. Identify traffic stream characteristics.
3. Learn methods to collect and analyze traffic data.
4. Understand elements of highway traffic safety and approaches for crash analysis.
5. Conduct parking studies.
6. Identify the level-of-service (LOS) on uninterrupted facilities, e.g., basic freeways, multilane highways, weaving sections, and two-lane highways.
7. Design pre-timed and actuated signalized intersections, and determine the signal phases/splits.
8. Learn about the application of Intelligent Transportation Systems (ITS) in the transportation field.
9. Learn about the future of transportation, e.g., connected and autonomous vehicles (CAVs).
10. Utilize modern software tools (e.g., HCS) for calculating delays and LOS for highway segments and signalized intersections.
11. Wok on a transportation project in a team of two or three students and submit a final report.

12. Write a research paper related to a specific topic of interest in Traffic Engineering.

3.3 Assessment/Evaluation: Students will be assessed via a variety of rubrics as determined by the instructor, e.g., through assignments, quizzes, tests, final project report write-up, software knowledge, and research paper.

Section 4: Rationale

4.1 Reason for developing this proposed course: This course will serve as a technical elective delivered by WKU faculty in the Civil Engineering Program and will be added to the existing list of CE technical elective courses. This course is proposed to further students' knowledge in Transportation Engineering and will be a significant addition to the existing CE 332 (Transportation Engineering) class. This course will prepare interested CE students to pursue further studies (e.g., M.S. or Ph.D.) in Transportation Engineering. This course will also strengthen the transportation skills within CE students at WKU.

4.2 Relationship to similar courses offered by other university departments/units: The proposed Traffic Engineering (CE 432) course will be a significant addition to the existing CE 332 (Transportation Engineering) class. Although there might be some overlap between CE 332 and CE 432, the CE 432 (Traffic Engineering) scope will be more advanced and the materials are expected to be covered in more details. Note that CE 332 (Transportation Engineering) is an introductory class that introduces and exposes CE students to the Transportation Engineering field.

Section 5: Projected Enrollments/Resources

5.1 How many students per section are expected to enroll in this proposed course? Based on enrollments in other CE technical elective courses (e.g., CE 383 "Structural Steel Design"), this course will have approximately 15 students per offering.

5.2 How many sections of this course per academic year will be offered? One section

5.3 How many students per academic year are expected to enroll? 15 students

5.4 How were these projections calculated? Explain any supporting evidence/data you have for arriving at these projections: The 15 students are projected based on enrollments in other CE technical elective courses (e.g., CE 383 "Structural Steel Design").

5.5 Proposed method of staffing: Current staffing is sufficient. Should the CE Program grows beyond the current capacity, the program/school will manage resources to meet these demands.

5.6 Instructional technology resources: Current technology resources are sufficient.

5.7 Library resources: Because this is a technical elective course, no specific library resource review can be conducted. The existing library resources are appropriate for general civil engineering use, and special materials required by the course will be provided by the instructor and the CE Program.

Section 6: Proposed term for implementation: Summer 2020

Section 7: Supplemental Documentation (Optional): N/A

Ref. 476

University Undergraduate Curriculum Proposal Checklist

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

☑ For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.

None consulted as none impacted by this program revision.

☑ What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

None, all changes are previous changes from the associated engineering programs.

☐ If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

☑ Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Stacy Wilson Digitally signed by Stacy Wilson Date: 2019.10.28 11:28:53 -05'00'

Department Head

Dean or Designee

Date

Date

Proposal to Revise a Program: Systems Engineering Minor
Ogden College of Science & Engineering
Department/Unit: School of Engineering and Applied Sciences

Section 1: Proponent Contact Information

1.1 Robert Choate, Professor
1.2 Email address: robert.choate@wku.edu
1.3 Phone # 270.745.8852

Section 2: Program Information

2.1 Current Program reference number: 476

2.2 Current Program title: Systems Engineering Minor

2.3 Current total number of credits required in the program: 21 (ME majors) or 21.5 (EE majors) or 22 (CE majors)

Section 3: Proposed program revisions and rationales

3.1 The minor was intended to be a program for all engineering majors. The programs began offering a multidisciplinary capstone project course, ENGR 491, in place of discipline specific capstone courses (CE 498, EE 401, ME 412).

3.2 CE 304 Construction Management Lab is no longer offered.

3.3 EM221 UK Statics is no longer offered.

3.4 The minor requires a number of technical electives from the engineering majors. A significant number of those courses are no longer offered.

The above changes reduce the program requirements from 22 to 21 for CE majors. No change in the program requirements for EE and Me majors.

Section 4: Consultations

Do any of the proposed revisions in section 3 above involve or in any other way impact other departments/units? NO

Section 5: Proposed term for implementation: Fall 2019

Section 6: Approval Flow Dates:

SEAS: **9/27/2019**
Odgen College Curriculum Committee:
Undergraduate Curriculum Committee:
University Senate:

Section 7: Required Appendices: Current & proposed program descriptions:
7.1 Current Program Requirement: 21 (ME majors) or 21.5 (EE majors) or 22 (CE majors) hours

Required Core: 12.5 (EE majors) or 12 (CE or ME majors) hrs	***12.5 (EE majors) or 12 (CE or ME majors) hrs***	
Circuits & Networks I or UK Statics or WKU Statics	EE 210 (EE) or EM 221 or EM 222 (CE or ME)	3.5 (EE) 3 (CE or ME)
Introductoru Probability and Applied Statistics or Risk Analysis	STAT 301 or CE 305	3
Principles of Systems Engineering	ENGR 400	3
Senior Project or EE Design Project or Mechanical Engineering Senior Project	CE 498 or EE 401 or ME 412	3
Elective Courses: 9 (EE and ME majors) or 10 (CE majors)	***9 (EE and ME majors)hrs or 10 (CE majors)***	
Construction Management / Construction Management Lab	CE 303 / CE 304	3 / 1
CE Technical Electives	CE 4xx**	6
Continuous Control Systems	EE 460	3
EE Technical Electives	EE 4xx**	6
Dynamics	EM 313	3
ME Technical Electives	ME 49x**	6
Program Grand Total Hours:		**21 (ME majors) or 21.5 (EE majors) or 22 (CE majors)**

** The technical elective must incorporate or expand on systems engineering principles as outlined in ENGR 400 Principles of Systems Engineering. Technical elective courses currently meeting this intent include but are not limited to: CE300 Floodplain Management, CE326 Engineering Law, CE360 Estimating Scheduling Bidding, CE361 Estimating Lab, CE366 Mechanical and Electrical Systems, CE378 Route Surveying, CE379 Route Surveying Lab, CE380 Boundary Surveying, CE381 Boundary Surveying Lab, CE383 Structural Steel Design, CE384 Reinforced Concrete Design, CE426 Advanced Structural Materials, CE436 Design/ Construction Integration, CE440 Masonry Design and Construction, CE441, Masonry Construction Lab, CE451 Water and Wastewater Treatment, CE462 Hydraulic Engineering Systems, CE466 Contracts and Specifications, CE476 Highway Construction, CE486 Steel and Concrete Construction, EE410/411 Computer Design, EE443 Microfabrication and MEMS, EE 431 Introduction to Power Systems, EE432 Power Systems II, EE461 Discrete Control Systems, EE443 Communication Applications, ME49x Reliability Engineering, ME49X Advanced Strength of Materials, ME 49X, Energy Conversion and Sustainability, ME49X Failure Analysis and Prevention, ME 49X Finite Element Analysis and ME49X Kinematics and Dynamics.

7.2 Proposed Program Requirement: 21 (CE and ME majors) or 21.5 (EE majors) hours

Required Core: 12.5 (EE majors) or 12 (CE or ME majors) hrs	***12.5 (EE majors) or 12 (CE or ME majors) hrs***	
Circuits & Networks I or ~~UK Statics~~ or WKU Statics	EE 210 (EE) or ~~EM 221~~ or EM 222 (CE or ME)	3.5 (EE) 3 (CE or ME)
Introductoru Probability and Applied Statistics or Risk Analysis	STAT 301 or CE 305	 3
Principles of Systems Engineering	ENGR 400	3
~~Senior Project~~ ~~or EE Design Project~~ ~~or Mechanical Engineering Senior Project~~ Senior Project	~~CE 498~~ ~~or EE 401~~ ~~or ME 412~~ ENGR 491	 3
Elective Courses: 9 (EE and ME majors) or 10 (CE majors)	***9 (EE and ME majors)hrs or 10 (CE majors)***	
Construction Management / Construction Management Lab	CE 303 / ~~CE 304~~	 3 / ~~4~~
CE Technical Electives	CE 4xx**	6
Continuous Control Systems	EE 460	3
EE Technical Electives	EE 4xx**	6
Dynamics	EM 313	3
ME Technical Electives	ME 49x**	6
Program Grand Total Hours:		**21 (CE or ME majors) or 21.5 (EE majors) ~~or 22 (CE majors)~~**

** The technical elective must incorporate or expand on systems engineering principles as outlined in ENGR 400 Principles of Systems Engineering. Technical elective courses currently meeting this intent include but are not limited to: ~~CE300 Floodplain Management, CE326 Engineering Law, CE360 Estimating Scheduling Bidding, CE361 Estimating Lab, CE366 Mechanical and Electrical Systems~~, CE378 Route Surveying, CE379 Route Surveying Lab, CE380 Boundary Surveying, CE381 Boundary Surveying Lab, CE383 Structural Steel Design, CE384 Reinforced Concrete Design, CE426 Advanced Structural Materials, ~~CE436 Design/ Construction Integration~~, CE440 Masonry Design and Construction, ~~CE441, Masonry Construction Lab, CE451 Water and Wastewater Treatment~~, CE462 Hydraulic Engineering Systems, ~~CE466 Contracts and Specifications, CE476 Highway Construction, CE486 Steel and Concrete Construction~~, EE410/411 Computer Design, EE443 Microfabrication and MEMS, EE 431 Introduction to Power Systems, ~~EE432 Power Systems II~~, EE461 Discrete Control Systems, ~~EE443 Communication Applications~~, ME49x ~~Reliability Engineering, ME49X Advanced Strength of Materials, ME 49X, Energy Conversion and Sustainability, ME49X Failure Analysis and Prevention, ME 49X Finite Element Analysis and ME49X Kinematics and Dynamics~~.

Ref. 518

University Undergraduate Curriculum Proposal Checklist

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

☑ For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.

The proposed changes to the Architectural Science Program does not impact any oth

☑ What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

There are no potential budget implications and no additional staffing is required. No

☑ If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

☑ Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Stacy Wilson Digitally signed by Stacy Wilson Date: 2019.10.28 11:29:24 -05'00'

Department Head

Dean or Designee

Date

Date

Proposal to Revise a Program: Architectural Science
Ogden College of Science & Engineering
Department/Unit: School of Engineering and Applied Sciences

Section 1: Proponent Contact Information

1.1 Shahnaz Aly, Associate Professor
1.2 Email address:Shahnaz.aly@wku.edu
1.3 Phone # 270.745.5849

Section 2: Program Information

2.1 Current Program reference number: 518

2.2 Current Program title: Architectural Science

2.3 Current total number of credits required in the program: 81

Section 3: Proposed program revisions and rationales

3.1 Remove requirement of AMS 140 course required in the major. Companies include safety and first aid training in their orientation of new employees. Aspects of safety are also covered in AMS 262. Students are also getting OSHA certified outside of the classroom for better job prospects.
3.2 Remove CE 304. The Civil Engineering program does not offer the course any more.
3.3 Remove Senior Research AMS 490. New modules for AMS 490 have been created in SEAS to enable individual programs to better control pre-requisites hence we are replacing the course number.
3.4 Add Senior Research AMS 490A 3 hours. The creation of the senior research course as a module has enabled us to add required pre-requisites that will improve the course outcomes.
3.5 Add 2 additional hour of Architectural Science Electives. Adding to the number of elective hours enables students to explore their areas of interest and focus on specialty topics.

Section 4: Consultations

Do any of the proposed revisions in section 3 above involve or in any other way impact other departments/units? NO

Section 5: Proposed term for implementation: Spring 2020

Section 6: Approval Flow Dates:

SEAS: **9/27/2019**
Odgen College Curriculum Committee:
Undergraduate Curriculum Committee:
University Senate:

Section 7: Required Appendices: Current & proposed program descriptions:

7.1 Current Program Requirement: 81 hours

~~Intro to Occupational Safety~~	~~AMS 140~~	~~1~~
Architectural Graphics	AMS 151	3
Architectural Drafting	AMS 163	3
Intro to Architecture	AMS 180	3
3D Modeling & Imaging	AMS 251	3
Construction Methods & Materials	AMS 261	3
Construction Methods & Materials Lab	AMS 262	1
Architectural Documentation I	AMS 263	3
Architectural Detailing	AMS 273	3
Architectural Structures	AMS 282	3
Building Codes	AMS 305	3
Survey of Building Systems	AMS 325	3
AMS 351 Building Info Modeling	AMS 351	3
Architectural Documentation II	AMS 363	3
Architectural Design Studio I	AMS 369	4
Quality Assurance	AMS371	3
Project Management	AMS390	3
Internship I	AMS398	1
Technology Mgmt./Sup./Team Blding	AMS430	3
Architectural Design Studio II	AMS 469	4
Comprehensive Design	AMS 488	3
~~Senior Research~~	~~AMS490~~	~~3~~
Construction Management	CE 303	3
~~Construction Management Lab~~	~~CE 304~~	~~1~~
Business Writing or Technical Writing	ENG 306 or 307	3
Management Elective		3
Architectural Science Electives		9
Colonnade		39
F-W1	ENG 100	3
F-W2	ENG 300	3
F-AH	ENG 200	3
F- OC	COMM 145	3
F-QR	MATH 117	3
F-SB	HIST 101 or HIST 102	3
E-AH	SELECT	3
E-SB	ECON 150 OR ECON 202 OR ECON 203	3
E-NS/SL	SELECT	6
K-SC	SELECT	3
K-LG	SELECT	3
K-SY	SELECT	3
Program Grand Total Hours		120

7.2 Proposed Program Requirement: 81 hours

Architectural Graphics	AMS 151	3
Architectural Drafting	AMS 163	3
Intro to Architecture	AMS 180	3
3D Modeling & Imaging	AMS 251	3
Construction Methods & Materials	AMS 261	3
Construction Methods & Materials Lab	AMS 262	1
Architectural Documentation I	AMS 263	3
Architectural Detailing	AMS 273	3
Architectural Structures	AMS 282	3
Building Codes	AMS 305	3
Survey of Building Systems	AMS 325	3
AMS 351 Building Info Modeling	AMS 351	3
Architectural Documentation II	AMS 363	3
Architectural Design Studio I	AMS 369	4
Quality Assurance	AMS371	3
Project Management	AMS390	3
Internship I	AMS398	1
Technology Mgmt./Sup./Team Blding	AMS430	3
Architectural Design Studio II	AMS 469	4
Comprehensive Design	AMS 488	3
Senior Research Architectural Science	**AMS490A**	**3**
Construction Management	CE 303	3
Business Writing or Technical Writing	ENG 306 or 307	3
Management Elective		3
Architectural Science Electives		**11**
Colonnade		39
F-W1	ENG 100	3
F-W2	ENG 300	3
F-AH	ENG 200	3
F- OC	COMM 145	3
F-QR	MATH 117	3
F-SB	HIST 101 or HIST 102	3
E-AH	SELECT	3
E-SB	ECON 150 OR ECON 202 OR ECON 203	3
E-NS/SL	SELECT	6
K-SC	SELECT	3
K-LG	SELECT	3
K-SY	SELECT	3
Program Grand Total Hours		120

BACHELOR of SCIENCE in ARCHITECTURAL SCIENCES (#518)
School of Engineering & Applied Sciences
Ogden College of Science and Engineering
Western Kentucky University

The suggested program of study shown below should be used in consultation with your advisor(s). Every student will finish with a unique plan of his/her own depending on the electives selected.

SAMPLE - 4 Year Plan

FIRST YEAR	Fall Semester		Spring Semester	
	AMS 151 – Architectural Graphics	3	AMS 163 – Architectural Drafting	3
	AMS 180 – Architecture & Civilization	3	AMS 261 & 262 – Construction Methods and Materials (with a Lab)	4
	MATH 117 – Trigonometry (F-QR)	3	ENG 200 Intro to Literature (F-AH)	3
	ENG 100 Intro to College Writing (F-W1)	3	Arts and Humanities (E-AH)	3
	HIST 101 World History I OR HIST 102 World History II (F-SB)	3	Natural & Physical Science (E-NS)	3
	TOTAL CREDIT HOURS	**15**	**TOTAL CREDIT HOURS**	**16**

SECOND YEAR	Fall Semester		Spring Semester	
	AMS 251 – 3D Modeling & Imaging	3	AMS 273 – Architectural Detailing	3
	AMS 263 – Architecture Documentation I	3	Architectural Elective	2
	AMS 305 – Building Codes	3	COMM 145 Fundamentals of Public Speaking (F-OC)	3
	ECON 202 – Principles of Economics (E-SB)	3	AMS 325 – Survey of Building Systems	3
	AMS 282 – Architectural Structures	3	AMS 369 – Design Studio I	4
	TOTAL CREDIT HOURS	**15**	**TOTAL CREDIT HOURS**	**15**

World Language Proficiency: All students entering in Fall 2014 or later must demonstrate proficiency in a world language at the Novice High level before completing 60 credit hours. Novice high is the ability to communicate in writing and speaking on familiar topics in simple sentences. To meet this requirement, students may take college language courses or take a proficiency test. For more information go to www.wku.edu/modernlanguages/placement/.

Colonnade Plan: All students entering in fall 2014 or later must complete 39 hours in 13 specific Colonnade areas. Colonnade areas are listed in parentheses marked in blue after the corresponding classes. Some areas may have specific course requirements while others can be chosen from selected lists of options. For more details and to see lists of options, go to http://www.wku.edu/colonnade/documents/approved_colonnade_courses_website.pdf

THIRD YEAR	Fall Semester		Spring Semester	
	AMS 363 – Architecture Documentation II	3	Architectural Elective	3
	CE 303 – Construction Management	3	AMS 371 – Quality Assurance	3
	AMS 390 – Project Management	3	ENG 306 or 307	3
	Connections: Social and Cultural (K-SC)	3	AMS 351- Building Informational Modeling	3
	ENG 300 Writing in the Disciplines (F-W2)	3	Connections: Local to Global Course (K-LG)	3
	TOTAL CREDIT HOURS	**15**	**TOTAL CREDIT HOURS**	**15**

FOURTH YEAR	Fall Semester		Spring Semester	
	AMS 469 – Architectural Design Studio II	4	AMS 430: Tech Management/Supervision	3
	AMS 488 – Comprehensive Design	3	AMS 490A – Senior Research Architectural Science	3
	Architectural Elective	3	Connections Course	3
	Management Elective	3	Architectural Elective	3
	AMS 398 - Internship	1	Natural & Physical Science (E-NS,LS)	3
	TOTAL CREDIT HOURS	**14**	**TOTAL CREDIT HOURS**	**15**
				Total Credit Hours: 120

PLEASE NOTE: *Prerequisites, Course Numbers, and Course Titles are subject to change. Consult your advisor each semester.*

For more Information:

School of Engineering & Applied Sciences
Website: www.wku.edu/seas
Phone: 270-745-3251
Email: ams@wku.edu
Course Descriptions: http://www.wku.edu/undergraduatecatalog/

Ref. 534

University Undergraduate Curriculum Proposal Checklist

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

✓ For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.

ARCHITECTURAL SCIENCE - 8/13/19 MS. SHAHNAZ ALI

CONSTRUCTION MANAGEMENT 8/13/19 DR. BASHAR HADDAD

✓ What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

NONE

✓ If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

✓ Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Department Head

Dean or Designee

10/7/19

Date

Date

Proposal to Revise a Program: Civil Engineering
Ogden College
Department/Unit: School of Engineering and Applied Sciences

Section 1: Proponent Contact Information

1.1 Jason C. Wilson, Instructor
1.2 Email address:Jason.Wilson@wku.edu
1.3 Phone # 270.745.2322

Section 2: Program Information

2.1 Current Program reference number: 534/534P

2.2 Current Program title: Civil Engineering/Civil Engineering Pre-major

2.3 Current total number of credits required in the program: 130

Section 3: Proposed program revisions and rationales

3.1 Delete CE 304 Construction Management Laboratory (1 credit hour) from "CE Program".

3.2 Reduce CE 342 Fluid & Thermal Science from 4 credit hours to 3 credit hours in "CE Program"

3.3 Delete CE 301 Field Experience in Floodplain Management, CE 326 Engineering Law, CE 360 Est., Scheduling Bidding, CE 361 Estimating Lab,CE 436 Design / Constr. Integration, CE 476 Highway Construction, CE 486 Steel & Concrete Constr., CE 490 UK-CE Sel. Topics (Fall), CE 491 UK-CE Sel. Topics (Spr), EE 350 Fund. of Electrical Engineering, and GEOL 308 Structural Geology from "CE Technical Electives".

3.4 Add CE 432 Traffic Engineering to "CE Technical Electives"

Section 4: Consultations
Do any of the proposed revisions in section 3 above involve or in any other way impact other departments/units? YES

The program coordinators of both Construction Management and Architectural were contacted about the droping of CE 304 Construction Management Laboaratory. All parties were in agreement about dropping the laboartory

Section 5: Proposed term for implementation: Spring 2021

Section 6: Approval Flow Dates:

SEAS: 9/13/19
Odgen College Curriculum Committee:
Undergraduate Curriculum Committee:
University Senate:

Section 7: Required Appendices: Current & proposed program descriptions:
7.1 Current Program Requirement: 130 hours

CE Current Program		
Course	**Course Title**	**Hrs.**
CE 176 ME 176 EE 101	CE Fresh Design, ME Fresh Design, or EE Design I	1
CE 160	Prin. of Surveying	3
CE 161	Surveying Lab	1
CE 303	Constr. Management	3
CE 304	Constr. Management Lab	1
CE 305	Risk Analysis	3
CE 310	Strengths Lab	1
CE 316	Equip. & Methods	3
CE 331	Transportation Eng.	3
CE 342	Fluid & Thermal Science	4
CE 352	Intro. to Environmental Engineering	3
CE 370	Materials of Construction	2
CE 371	Matls. of Constr. Lab	1
CE 382	Structural Analysis	3
CE 384	Civil Engineering Design Course	3
CE 410	Soil Mechanics	3
CE 411	Soil Mechanics Lab	1
CE 412	Foundation Eng.	3
CE 461	Hydrology	3
ENGR 490	Senior Design Seminar	2
ENGR 491	Senior Project	3
CE	**Technical Elective***	**3**
CE	**Technical Elective***	**3**
CE	**Technical Elective***	**3**
AMS 163	Arch. Drafting	3
EM 222	Statics	3
EM 303	Mechanics of Deformable Bodies	3
TOTALS	**Credit Hours**	**68**

*Students are required to complete a total of 9 credit hours of technical electives in civil engineering or a related field. A minimum of 6 credit hours must come from CE prefixed courses.

Other Requirements		
Course	**Course Title**	**Hrs.**
MATH 136	Calculus I	4
MATH 137	Calculus II	4

MATH 237	Multivariable Calculus	4
MATH 331	Differential Equations	3
PHYS 255	University Physics I	4
PHYS 256	Physics I Lab	1
	Science or Math Elective (See list below.)**	3-5
CHEM 120	College Chemistry I	3
CHEM 121	Chemistry I Lab	2
GEOL 111	The Earth	3
GEOL 113	The Earth Lab	1
TOTALS	**Credit Hours**	**32**

**Students are required to complete one set of Science or Math Electives.

CE Technical Electives		
Course	**Course Title**	**Hrs.**
CE 300	Floodplain Management	3
CE 301	Field Experience in Floodplain Management	3
CE 326	Engineering Law	3
CE 360	Est., Scheduling Bidding	3
CE 361	Estimating Lab	1
CE 378	Boundary Surveying	3
CE 379	Boundary Surveying. Lab	1
CE 380	Route Surveying	3
CE 381	Route Surveying Lab	1
CE 383	Structural Steel Design	3
CE 426	Adv. Construction Matls.	3
CE 436	Design / Constr. Integration	3
CE 440	Masonry Construction	3
CE 444	Bridge Engineering	3
CE 462	Hydraulic Engineering	3
CE 474	Civil Eng. Design Project	1-3
CE 475	Sel. Topics in Civil Eng.	3
CE 476	Highway Construction	3
CE 486	Steel & Concrete Constr.	3
CE 490	UK-CE Sel. Topics (Fall)	3
CE 491	UK-CE Sel. Topics (Spr)	3
AMS 305	Building Codes	3
AMS 325	Surv. of Building Systems	3
CM 363	Constr. Est. and Bidding	3
CM 400	Constr. Administration	3
CM 426	Construction Law	3

EE 350	Fund. of Electrical Eng.	4
EM 313	Dynamics	3
ENGR 400	Systems Engineering	3
GISC 316	Fundamentals of GIS	4
GEOL 308	Structural Geology	4
GEOL 310	Global Hydrology	3
GEOL 415	Environmental Geology	3
GISC 317	Geog. Info. Systems	4
ME 220	Eng. Thermodynamics	3
MATH 350	Adv. Engineering Math	3

CE Program:

Students must have a grade of "C" or better in:

- All premajor courses,
- All math courses,
- Science or math elective,
- EM 303 Mechanics of Deformable Solids,
- All CE courses including technical electives (except for one (1) 300-level or 400-level CE course),

7.2 Proposed Program Requirement: 128 hours

CE Current Program		
Course	**Course Title**	**Hrs.**
CE 176 ME 176 EE 101	CE Fresh Design, ME Fresh Design, or EE Design I	1
CE 160	Prin. of Surveying	3
CE 161	Surveying Lab	1
CE 303	Constr. Management	3
~~CE 304~~	~~Constr. Management Lab~~	~~1~~
CE 305	Risk Analysis	3
CE 310	Strengths Lab	1
CE 316	Equip. & Methods	3
CE 331	Transportation Eng.	3
CE 342	Fluid & Thermal Science	3
CE 352	Intro. to Environmental Engineering	3
CE 370	Materials of Construction	2
CE 371	Matls. of Constr. Lab	1
CE 382	Structural Analysis	3
CE 384	Civil Engineering Design Course	3
CE 410	Soil Mechanics	3
CE 411	Soil Mechanics Lab	1
CE 412	Foundation Eng.	3
CE 461	Hydrology	3
ENGR 490	Senior Design Seminar	2
ENGR 491	Senior Project	3
CE	**Technical Elective***	**3**
CE	**Technical Elective***	**3**
CE	**Technical Elective***	**3**
AMS 163	Arch. Drafting	3
EM 222	Statics	3
EM 303	Mechanics of Deformable Bodies	3
TOTALS	**Credit Hours**	**68**

*Students are required to complete a total of 9 credit hours of technical electives in civil engineering or a related field. A minimum of 6 credit hours must come from CE prefixed courses.

Other Requirements		
Course	**Course Title**	**Hrs.**
MATH 136	Calculus I	4
MATH 137	Calculus II	4
MATH 237	Multivariable Calculus	4

MATH 331	Differential Equations	3
PHYS 255	University Physics I	4
PHYS 256	Physics I Lab	1
	Science or Math Elective (See list below.)**	3-5
CHEM 120	College Chemistry I	3
CHEM 121	Chemistry I Lab	2
GEOL 111	The Earth	3
GEOL 113	The Earth Lab	1
TOTALS	**Credit Hours**	**32**

**Students are required to complete one set of Science or Math Electives.

CE Technical Electives		
Course	**Course Title**	**Hrs.**
CE 300	Floodplain Management	3
~~CE 301~~	~~Field Experience in Floodplain Management~~	~~3~~
~~CE 326~~	~~Engineering Law~~	~~3~~
~~CE 360~~	~~Est., Scheduling Bidding~~	~~3~~
~~CE 361~~	~~Estimating Lab~~	~~1~~
CE 378	Boundary Surveying	3
CE 379	Boundary Surveying. Lab	1
CE 380	Route Surveying	3
CE 381	Route Surveying Lab	1
CE 383	Structural Steel Design	3
CE 426	Adv. Construction Matls.	3
CE 432	Traffic Engineering	
~~CE 436~~	~~Design / Constr. Integration~~	~~3~~
CE 440	Masonry Construction	3
CE 444	Bridge Engineering	3
CE 462	Hydraulic Engineering	3
CE 474	Civil Eng. Design Project	1-3
CE 475	Sel. Topics in Civil Eng.	3
~~CE 476~~	~~Highway Construction~~	~~3~~
~~CE 486~~	~~Steel & Concrete Constr.~~	~~3~~
~~CE 490~~	~~UK-CE Sel. Topics (Fall)~~	~~3~~
~~CE 491~~	~~UK-CE Sel. Topics (Spr)~~	~~3~~
AMS 305	Building Codes	3
AMS 325	Surv. of Building Systems	3
CM 363	Constr. Est. and Bidding	3
CM 400	Constr. Administration	3
CM 426	Construction Law	3
~~EE 350~~	~~Fund. of Electrical Eng.~~	4

EM 313	Dynamics	3
ENGR 400	Systems Engineering	3
GISC 316	Fundamentals of GIS	4
~~GEOL 308~~	~~Structural Geology~~	~~4~~
GEOL 310	Global Hydrology	3
GEOL 415	Environmental Geology	3
GISC 317	Geog. Info. Systems	4
ME 220	Eng. Thermodynamics	3
MATH 350	Adv. Engineering Math	3

CE Program:

Students must have a grade of "C" or better in:

- All premajor courses,
- All math courses,
- Science or math elective,
- EM 303 Mechanics of Deformable Solids,
- All CE courses including technical electives (except for one (1) 300-level or 400-level CE course),

Civil Engineering

Ogden College of Science and Engineering
Western Kentucky University

A Suggested Four-Year Academic Degree Path

FIRST YEAR			
FALL SEMESTER		**SPRING SEMESTER**	
CE176: CE Freshman Design	1	COMM145: Public Speaking	3
AMS163: Architectural Drafting	3	CE160/161: Surveying I and Lab	3/1
MATH136: Calculus I	4	MATH137: Calculus II	4
GEOL 111/113: The Earth and Lab	3/1	PHYS255/256: Physics I and Lab	4/1
ENG100: Intro to College Writing	3		
TOTAL CREDIT HOURS	**15**	**TOTAL CREDIT HOURS**	**16**

SECOND YEAR			
FALL SEMESTER		**SPRING SEMESTER**	
CE303: Construction Mgmt.	3	CE310: Strength of Materials Lab	1
ENG200: Intro to Literature	3	EM303: Mechanics of Deformable Solids	3
MATH237: Multivariable Calculus	4	MATH331: Differential Equations	3
EM222: Statics	3	Science or Math Elective	3
Arts and Humanities Elective	3	CE 332: Transportation Engineering	3
		CE 316: Equipment and Methods	3
TOTAL CREDIT HOURS	**16**	**TOTAL CREDIT HOURS**	**16**

THIRD YEAR			
FALL SEMESTER		**SPRING SEMESTER**	
CE382: Structural Analysis	3	CE305: Risk Analysis	3
CE410/411: Soil Mechanics and Lab	3/1	CHEM120/121: College Chemistry I and Lab	3/2
CE342: Fluid Thermal Science	3	CE412: Foundation Engineering	3
CE370/371:Materials of Const. and Lab	2/1	CE384: Reinforced Concrete	3
ENG300: Writing in Discipline Elective	3	CE Technical Elective	3
TOTAL CREDIT HOURS	**16**	**TOTAL CREDIT HOURS**	**17**

FOURTH YEAR			
FALL SEMESTER		**SPRING SEMESTER**	
CE352: Intro to Environmental Engineering	3	Connections: Social and Cultural Elective	3
CE Technical Elective	3	CE Technical Elective	3
ENGR490: Senior Design Seminar	2	CE498: Senior Project	3
Social and Behavioral Science Elective	3	Connections: Local to Global	3
HIST101 or 102: World History	3	CE461: Hydrology	3
Connections: Systems Elective	3		
TOTAL CREDIT HOURS	**17**	**TOTAL CREDIT HOURS**	**15**

FOR ADDITIONAL INFORMATION, PLEASE CONTACT:

Department:	Civil Engineering Program Coordinator Mr. Jason Wilson
Phone:	270-745-2322