MEMORANDUM TO: Ogden College of Science and Engineering Curriculum Committee

Dr. Martin Stone
Dr. Mark Revels
Dr. Phil Lienesch
Dr. Darwin Dahl
Dr. Huanjing Wang
Dr. Warren Campbell
Dr. Xingang Fan
Dr. Ngoc Nguyen
Dr. Doug Harper
Dr. Steve Haggbloom
Dr. Les Pesterfield

FROM: Kenneth Crawford, Chair

SUBJECT: Agenda for Thursday, March 3, 4:00 p.m. in COHH 4123

A. OLD BUSINESS:

I. Consideration of the minutes of the February 4, 2016 meeting.

B. NEW BUSINESS:

Consent Items

Department of Architectural Manufacturing Sciences

I. Proposal to Revise Course Prerequisites
   a. AMS 120, Basic Electricity, 3 hrs.
   b. AMS 205, CADD for Manufacturing, 3 hrs.
   c. AMS 217, Industrial Materials, 3 hrs.
   d. AMS 227, Introduction to Manufacturing Methods, 3 hrs.
   e. AMS 271, Industrial Statistics, 3 hrs.
   f. AMS 310, Work Design/ Ergonomics, 3 hrs.
   g. AMS 328, Robotics and Machine Vision, 3 hrs.
   h. AMS 342, Manufacturing Operations, 3 hrs.
   i. AMS 352, Food Processing: Unit Operations, 3 hrs.
   j. AMS 371, Quality Assurance, 3 hrs.
   k. AMS 390, Project Management, 3 hrs.
   l. AMS 394, Lean Systems, 3 hrs.
   m. AMS 396, Introduction to Supply Chain Management, 3 hrs.
   n. CM 250, Contracts Documents, 3 hrs.

Department of Biology

I. Proposal to Revise Course Prerequisites/Corequisites
   a. BIOL 208, General Microbiology Laboratory, 1 hr.
   b. BIOL 319, Introduction to Molecular and Cell Biology, 3 hrs.
   c. BIOL 322, Introduction to Molecular and Cell Biology Laboratory, 1 hr.
   d. BIOL 328, Immunology, 4 hrs.
   e. BIOL 331, Animal Physiology Laboratory, 1.5 hrs.
   f. BIOL 337, Genetics Laboratory, 1 hr.

g. BIOL 403, Molecular Basis of Cancer, 3 hrs.
h. BIOL 407, Virology, 3 hrs.
i. BIOL 411, Cell Biology, 3 hrs.
j. BIOL 412, Cell Biology Laboratory, 1 hr.
k. BIOL 440, Developmental Genetics, 3 hrs.
l. BIOL 446, Biochemistry I, 3 hrs.
m. BIOL 447, Biochemistry Laboratory, 2 hrs.
n. BIOL 464, Endocrinology, 3 hrs.
o. BIOL 496, Plant Biotechnology, 4 hrs.

Department of Chemistry

I. Proposal to Revise Course Prerequisites/Corequisites
a. CHEM 446, Biochemistry, 3 hr.
b. CHEM 447, Biochemistry Laboratory, 2 hrs.

Department of Engineering

I. Proposal to Revise Course Prerequisites/Corequisites
a. CE 332, Transportation Engineering, 3 hrs.
b. EE 300, Electrical Engineering Design III, 1 hr.

II. Proposal to Revise Course Title
a. EE 473, Introduction to Electromagnetic Fields and Waves, 3 hrs.

Department of Geography & Geology

I. Proposal to Revise Course Prerequisites/Corequisites
a. GEOG 330, Cultural Geography, 3 hrs.
b. GEOG 378, Food, Culture, and Environment, 3 hrs.

II. Proposal to Revise Course Title
a. GEOL 325, Introduction to Minerals and Rocks, 3 hrs.

Department of Mathematics

I. Proposal to Revise Course Prerequisites/Corequisites
a. MATH 403, Geometry for Elementary and Middle School Teachers, 3 hrs.
b. MATH 411, Problem Solving for Elementary and Middle Grades Teachers, 3 hrs.
c. MATH 413, Algebra and Technology for Middle School Teachers, 3 hrs.

Action Items

Department of Agriculture

I. Proposal to Create a New Course
a. AGEC 160, Introduction to Agribusiness and Entrepreneurship, 3 hrs.
b. AGEC 261, Agricultural Accounting, 3 hrs.
c. AGED 200, Foundations of Agricultural Education, 1 hr.
d. AGMC 178, Agriculture Safety, 2 hrs.

II. Proposal to Make Multiple Revisions to a Course
   a. AGMC 377, Farm Machinery, 2 hrs.

III. Proposal to Revise a Program
   a. Ref. 308, Minor in Agriculture, 18 hrs.
   b. Ref. 605, Major in Agriculture (with 2nd major or minor), 30 hrs.

Department of Architectural and Manufacturing Sciences

I. Proposal to Revise a Program
   a. Ref. 506, Advanced Manufacturing, 120 hrs.

Department of Biology

I. Proposal to Create a New Course
   a. BIOL 356, Ornithology Lab, 2 hrs.
   b. BIOL 380, Challenges of Changing Biosphere, 3 hrs.
   c. BIOL 397, Scientific Process, 2-4 hrs.
   d. BIOL 489, Professional Aspects of Biology, 1 hr.

II. Proposal to Revise a Program
   a. Ref. 525, Major in Biology, 48 hrs.
   b. Ref. 617, Major in Biology, 36 hrs.

Department of Biology & Department of Chemistry

I. Proposal to Revise a Program
   a. Ref 519, Major in Biochemistry, 60 hrs.

Department of Geography & Geology

I. Proposal to Create a New Course
   a. GEOG 225, Visualizing Geography: Understanding our Diverse World
   b. GEOG 386, Geography of Potent Potables: Brewing, Distilling, and Wine Making, 3 hrs

Department of Psychological Sciences

I. Proposal to Revise a Program
   a. Ref. 434, Minor in Neuroscience, 21 hrs.
   b. Ref. 440, Minor in Psychological Science, 22 hrs.
   c. Ref. 747, Major in Psychological Science, 37 hrs.

C. OTHER BUSINESS

Minutes – OCSE Curriculum Committee **February 4, 2015**

MEMBERS PRESENT:

Dr. Martin Stone
Dr. Mark Revels
Dr. Phil Lienesch
Dr. Darwin Dahl
Dr. Huanjing Wang
Dr. Warren Campbell
Dr. Xingang Fan
Dr. Ngoc Nguyen
Dr. Doug Harper
Dr. Steve Haggbloom
Dr. Les Pesterfield

GUEST PRESENT: Dr. Todd Willian, Dr. Stuart Burris, Dr. Jeremey Maddox, Dr. Julie Ellis, Dr. David Keeling, Dr. Bruce Kessler, Patrick Brown, Leslie Plumlee, and Dr. Mike Carini

FROM: Ken Crawford, Chair

OLD BUSINESS:

Campbell/Haggbloom moved for approval of the minutes of the December 3rd meeting. Motion passed.

NEW BUSINESS:

Consent Agenda

Haggbloom/Campbell moved to approve the Department of Agriculture Consent Items. Motion passed.
Campbell/Haggbloom moved to approve the Department of Chemistry Consent Items. Motion passed.
Campbell/Haggbloom moved to approve the Department of Geography & Geology Consent Items with several minor friendly amendments. Motion passed.
Campbell/Harper moved to approve the Department of Mathematics Consent Items. Motion passed.
Haggbloom/Campbell moved to approve the Department of Psychological Sciences Consent Items. Motion passed.

Action Agenda

Department of Agriculture

Stone/Campbell moved to approve Proposal to Revise Course Credit Hours: AGRI 175. Motion passed.
Campbell/Haggbloom moved to approve Proposal to Discontinue Course Equivalencies: AGRI 280. Motion passed.
Campbell/Haggbloom moved to bundle and Campbell/Stone moved to approve Proposals to Create a New Course: AGMC 425 and AGRI 397. Motions passed.
Campbell/Stone moved to approve Proposal to Make Multiple Revisions to a Course: AGRO 317. Motion passed.

Department of Biology

Campbell/Dahl moved to approve Proposal to Create a New Course: BIOL 212. Motion passed.

Department of Chemistry

Campbell/Dahl moved to bundle and Campbell/Haggbloom moved to approve Proposals to Make Multiple Revisions to a Course: CHEM 120, CHEM 222, CHEM 223, and CHEM 421. Motions approved.

Department of Geography & Geology

Campbell/Haggbloom moved to approve Proposal to Make Multiple Revisions to a Course: GEOG 452. Motion passed with friendly amendment.
Campbell/Dahl moved to approve Proposal to Make Multiple Revisions to a Course: GEOG 465. Motion passed with friendly amendment.
Campbell/Harper moved to approve Proposal to Make Multiple Revisions to a Course: GEOG 471. Motion passed.
Campbell/Pesterfield moved to approve Proposal to Make Multiple Revisions to a Course: GEOG 474. Motion passed with friendly amendment.
Campbell/Haggbloom moved to approve Proposal to Make Multiple Revisions to a Course: GEOG 486. Motion passed.
Campbell/Lienesch moved to approve Proposal to Make Multiple Revisions to a Course: GEOG 487. Motion passed with friendly amendment.
Campbell/Dahl moved to approve Proposal to Make Multiple Revisions to a Course: GEOG 489. Motion passed with friendly amendment.
Campbell/Dahl moved to approve Proposal to Delete a Program: Minor in Environmental Studies. Motion passed.
Haggbloom/Campbell moved to approve Proposal to Revise a Program: Ref. 675. Motioned passed with friendly amendment.
Campbell/Haggbloom moved to approve Proposal to Revise a Program: Ref. 477. Motion passed with friendly amendment.
Campbell/Harper moved to approve Proposal to Revise a Program: Ref. 577. Motion passed.
Campbell/Haggbloom moved to approve Proposal to Revise a Program: Ref. 676. Motion passed.

Department of Mathematics
Campbell/Dahl moved to bundle and Campbell/Haggbloom moved to approve Proposals to Create a New Course: MATH 112, MATH 115, and MATH 225. Motions passed.
Campbell/Haggbloom moved to approve Proposal to Make Multiple Revisions to a Course: MATH 490. Motion passed.
Campbell/Harper moved to approve Proposal to Revise a Program: Ref. 730. Motion passed.

Department of Psychological Sciences
Campbell/Harper moved to approve Proposal to Create a New Course: PSYS 260. Motion passed with friendly amendment.

OTHER BUSINESS:

Changes to Ogden Curriculum Committee dates and deadlines for spring were reviewed and discussed.
Newly approved standing rules implementation plans were confirmed.
Committee nominated and unanimously approved Dr. Ken Crawford to remain as Chair of the Ogden College Undergraduate Curriculum Committee.

Meeting adjourned at 4:58pm.

Proposal date: 2-5-2016

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

Contact Person: Bryan Reaka, bryan.reaka@wku.edu, 270-745-7032

1. **Identification of course:**
   1.1 Course prefix (subject area) and number: AMS 120
   1.2 Course title: Basic Electricity

2. **Current prerequisites:** Eligibility for Math 116

3. **Proposed prerequisites:** Math 116 with a grade of "C" or better, or Math 117 or better

4. **Rationale for the revision of prerequisites:** Evaluation of student performance in this course over the past two years has shown that students who have completed MATH 116 with a grade of C or better and those who have matriculated through a higher level of math have possessed the formula manipulation skills and spatial understanding necessary for success in AMS 120. Those students who have not completed at least MATH 116 with a grade of C or better have not fared as well, and many have had to retake this course. The AMS Department would like to ensure that students who have met the prerequisites for AMS 120 have the ability to be successful in the course.

Class (# enrolled start semester)	Math level begin semester	Grade
AMS 120	117 (2), 136 (1)	A
Sp 14 (20)- 20	183 (1),117 (2), 116(1),096(1)	B
	116(2), 096(3)	C
	096(3), 116(1)	D
	096(1), 116(1)	F
	096(1)	FN

Class (# enrolled start semester)	Math level begin semester	Grade
AMS 120	117 (4), 116 (2)	A
Fa 14 (20)- 19	116 (3)	B
	116 (2), 096 (2)	C
	096 (3)	D
	096 (2)	F
	096(1)	FN

Class (# enrolled start semester)	Math level begin semester	Grade
AMS 120	116(2), 117(3),	A
Sp 15 (20)- 20	096(1), 116 (2), 117(1)	B
	096(4), 116(1)	C
	096(2), 116(2)	D
	116(1)	F
	096(1)	FN

5. **Effect on completion of major/minor sequence:** Students should move more efficiently through the major/minor course sequence

6. **Proposed term for implementation: Fall 2016**

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

Department: Architectural and Manufacturing Sciences	**2-5-2016**
OCSE College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Proposal date: 2-5-2016

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

Contact Person: Bryan Reaka, bryan.reaka@wku.edu, 270-745-7032

1. **Identification of course:**
   1.1 Course prefix (subject area) and number: AMS 205
   1.2 Course title: CADD for Manufacturing

2. **Current prerequisites:** None

3. **Proposed prerequisites:** Math 116 with a grade of "C" or better, or Math 117 or better

4. **Rationale for the revision of prerequisites:** Evaluation of student performance in this course over the past two years has shown that students who have completed MATH 116 with a grade of C or better and those who have matriculated through a higher level of math have possessed the formula manipulation skills and spatial understanding necessary for success in AMS 205. Those students who have not completed at least MATH 116 with a grade of C or better have not fared as well, and many have had to retake this course. The AMS Department would like to ensure that students who have met the prerequisites for AMS 205 have the ability to be successful in the course.

Class (# enrolled start semester)	Math level begin semester	Grade	Class (# enrolled start semester)	Math level begin semester	Grade
AMS 205	117 (3), 116 (3)	A	AMS 205	117 (2), 136 (1)	A
Fa 14 (20)-20	117 (1) 116 (2)	B	Sp 15 (20) - 20	183 (1),117 (2), 116(1),096(1)	B
	116 (3), 096 (3)	C		116(2), 096(3)	C
	096 (2)	D		096(3), 116(1)	D
	055(1),096 (1)	F		055(1),096(1), 116(1)	F
	055(1)	FN		096(1)	FN

Class (# enrolled start semester)	Math level begin semester	Grade
AMS 205	116 (4), 117 (2)	A
Fa 15 (20)-19	116 (2)117(2)	B
	055(1),096(2),116 (2)	C
	055(1),096(1), 116 (2)	D
		F
		FN

5. **Effect on completion of major/minor sequence:** Students should move more efficiently through the major/minor course sequence

6. **Proposed term for implementation: Fall 2016**

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

Department: Architectural and Manufacturing Sciences	**2-5-2016**
OCSE College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Proposal date: 2-5-2016

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

Contact Person: Bryan Reaka, bryan.reaka@wku.edu, 270-745-7032

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

2. **Current prerequisites:** MATH 116 or higher

3. **Proposed prerequisites:** Math 116 with a grade of "C" or better, or Math 117 or better

4. **Rationale for the revision of prerequisites:** Evaluation of student performance in this course over the past two years has shown that students who have completed MATH 116 with a grade of C or better and those who have matriculated through a higher level of math have possessed the formula manipulation skills and spatial understanding necessary for success in AMS 217. Those students who have not completed at least MATH 116 with a grade of C or better have not fared as well, and many have had to retake this course. The AMS Department would like to ensure that students who have met the prerequisites for AMS 217 have the ability to be successful in the course.

Class (# enrolled start semester)	Math level begin semester	Grade
AMS 217	136 (1) 117 (2)	A
Su 14 (15)- 12	116 (2) 117 (3)	B
	116 (1)	C
	096(2), 116 (1)	D
		F
		FN

Class (# enrolled start semester)	Math level begin semester	Grade
AMS 217	116(2),117 (2),136 (1),	A
Fa 15 (20)-19	116 (2),117(1)	B
	116 (3),117(1)	C
	116 (5)	D
	116(1)	F
	116(1)	FN

Class (# enrolled start semester)	Math level begin semester	Grade
AMS 217	116(1),117 (1),127(1),136 (1),	A
Sp 15 (20)- 18	117 (3), 136(1)	B
	116(3), 117(2)	C
	116 (3)	D
	116 (1)	F
	116(1)	FN

5. **Effect on completion of major/minor sequence:** Students should move more efficiently through the major/minor course sequence

6. **Proposed term for implementation: Fall 2016**

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

Department: Architectural and Manufacturing Sciences	**2-5-2016**
OCSE College Curriculum Committee	
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Proposal date: 2-5-2016

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

Contact Person: Bryan Reaka, bryan.reaka@wku.edu, 270-745-7032

1. **Identification of course:**
   1.1 Course prefix (subject area) and number: AMS 227
   1.2 Course title: Introduction to Manufacturing Methods

2. **Current prerequisites:** None

3. **Proposed prerequisites:** Math 116 with a grade of "C" or better, or Math 117 or better

4. **Rationale for the revision of prerequisites:** Evaluation of student performance in this course over the past two years has shown that students who have completed MATH 116 with a grade of C or better and those who have matriculated through a higher level of math have possessed the formula manipulation skills and spatial understanding necessary for success in AMS 227. Those students who have not completed at least MATH 116 with a grade of C or better have not fared as well, and many have had to retake this course. The AMS Department would like to ensure that students who have met the prerequisites for AMS 227 have the ability to be successful in the course.

Class (# enrolled start semester)	Math level begin semester	Grade
AMS 227	118(1), 117 (4),116 (3)	A
Fa 14 (20)-20	117 (1) 116 (1)	B
	116 (1), 096 (3)	C
	096 (2) 055 (1)	D
	055(1)	F
	096 (1) 116 (1)	FN

Class (# enrolled start semester)	Math level begin semester	Grade
AMS 227	116(2),117 (2)	A
Sp 15 (22) -22	096(1),116 (3),117 (2)	B
	055(1),096(2),116 (2)	C
	055(2), 096(1),116 (1)	D
	096(1)	F
	055(1),116(1)	FN

Class (# enrolled start semester)	Math level begin semester	Grade
AMS 227	116(3),117 (2),136 (1)	A
Fa 15 (20)-20	109(1),116(3),117 (2)	B
	055(1),116 (2)	C
	055(2)096(1) 116 (1)	D
	096 (1)	F
		FN

5. **Effect on completion of major/minor sequence:** Students should move more efficiently through the major/minor course sequence

6. **Proposed term for implementation: Fall 2016**

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

Department: Architectural and Manufacturing Sciences	**2-5-2016**
OCSE College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Proposal date: 2-5-2016

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

Contact Person: Bryan Reaka, bryan.reaka@wku.edu, 270-745-7032

1. **Identification of course:**
   1.1 Course prefix (subject area) and number: AMS 271
   1.2 Course title: Industrial Statistics

2. **Current prerequisites:** Math 116 or equivalent

3. **Proposed prerequisites:** Math 116 with a Grade of "C" or better, or Math 117 or better

4. **Rationale for the revision of prerequisites:** Evaluation of student performance in this course over the past two years has shown that students who have completed MATH 116 with a grade of C or better and those who have matriculated through a higher level of math have possessed the formula manipulation skills and spatial understanding necessary for success in AMS 271. Those students who have not completed at least MATH 116 with a grade of C or better have not fared as well, and many have had to retake this course. The AMS Department would like to ensure that students who have met the prerequisites for AMS 271 have the ability to be successful in the course.

Class (# enrolled start semester)	Math level begin semester	Grade	Class (# enrolled start semester)	Math level begin semester	Grade
AMS 271	117 (1), 118(1), 136 (3)	A	AMS 271	117 (3)	A
Sp 14 (40)- 37	117(5), 116 (2)	B	Su 14 (12)- 5	116 (1)	B
	116 (7), 117(7)	C			C
	116(3),096 (4)	D		116 (1)	D
	096 (2), 116 (1)	F			F
	096(1)	FN			FN
Class (# enrolled start semester)	Math level begin semester	Grade	Class (# enrolled start semester)	Math level begin semester	Grade
AMS 271	116(1),117(1),136 (3)	A	AMS 271	117 (3)	A
Fa 14 (45)-43	116 (1), 117(8), 136(1)	B	Wn 15 (38)- 9	116 (2)	B
	116 (9), 117(5)	C		116 (1)	C
	116(6), 117 (1)	D		096(1),116 (1)	D
	116 (5)	F		096(1)	F

	116 (2)	FN			FN
Class (# enrolled start semester)	Math level begin semester	Grade	Class (# enrolled start semester)	Math level begin semester	Grade
AMS 271	116(1),117 (2),136 (1)	A	AMS 271	116(1), 117 (3)	A
Sp 15 (40)- 33	116 (3) 117 (3)	B	Su 15 (18) - 6	116 (1)	B
	116 (7), 117(5)	C		116 (1)	C
	116 (4)	D			D
	116(3)	F			F
	116(4)	FN			FN
Class (# enrolled start semester)	Math level begin semester	Grade	Class (# enrolled start semester)	Math level begin semester	Grade
AMS 271	116(3),117 (2)	A	AMS 271	116(1), 117(2),119(1)	A
Fa 15 (45)- 44	116 (6), 117(4)	B	Wn 16 (20)- 15	116(3), 117(2)	B
	116 (11), 117(4)	C		116 (4)	C
	116(6), 117 (1)	D		116 (1)	D
	116 (5)	F		116 (1)	F
	116 (2)	FN			FN

5. Effect on completion of major/minor sequence: Students should move more efficiently through the major/minor course sequence

6. Proposed term for implementation: Fall 2016

7. Dates of prior committee approvals:

Department: Architectural and Manufacturing Sciences **2-5-2016**

OCSE College Curriculum Committee _____

Undergraduate Curriculum Committee _____

University Senate _____

Proposal date: 2-5-2016

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

Contact Person: Bryan Reaka, bryan.reaka@wku.edu, 270-745-7032

1. **Identification of course:**
   1.1 Course prefix (subject area) and number: AMS 310
   1.2 Course title: Work Design/ Ergonomics

2. **Current prerequisites:** Math 116

3. **Proposed prerequisites:** Math 116 with a grade of "C" or better, or Math 117 or better

4. **Rationale for the revision of prerequisites:** Evaluation of student performance in this course over the past two years has shown that students who have completed MATH 116 with a grade of C or better and those who have matriculated through a higher level of math have possessed the formula manipulation skills and spatial understanding necessary for success in CM 250. Those students who have not completed at least MATH 116 with a grade of C or better have not fared as well, and many have had to retake this course. The AMS Department would like to ensure that students who have met the prerequisites for CM 250 have the ability to be successful in the course.

Class (# enrolled start semester)	Math level begin semester	Grade	Class (# enrolled start semester)	Math level begin semester	Grade
AMS 310	116 (2),117 (1), 136 (3)	A	AMS 310	117 (3), 136 (1), 137 (1)	A
Fa 14 (40)- 39	117(4), 116 (2)	B	Sp 15 (40)- 34	116 (1), 117(8)	B
	096(2),116 (7), 117(2)	C		116 (9), 117(4)	C
	096(6), 116(2)	D		116(3), 117 (1)	D
	096 (4), 116 (2)	F		116 (2)	F
	096(2)	FN		116 (1)	FN

Class (# enrolled start semester)	Math level begin semester	Grade
AMS 310	116(2),117(1),136(1)	A
Fa 15 (45)-44	116 (5),117(9)	B
	116(9), 117(5)	C
	116(7), 117 (1)	D
	116 (3)	F
	116 (1)	FN

5. **Effect on completion of major/minor sequence:** Students should move more efficiently through the major/minor course sequence

6. **Proposed term for implementation: Fall 2016**

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

Department: Architectural and Manufacturing Sciences	**2-5-2016**
OCSE College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Proposal date: 2-5-2016

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

Contact Person: Bryan Reaka, bryan.reaka@wku.edu, 270-745-7032

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: AMS 328
   - 1.2 Course title: Robotics and Machine vision

2. **Current prerequisites:** None

3. **Proposed prerequisites:** Math 116 with a grade of "C" or better, or Math 117 or better

4. **Rationale for the revision of prerequisites:** Evaluation of student performance in this course over the past two years has shown that students who have completed MATH 116 with a grade of C or better and those who have matriculated through a higher level of math have possessed the formula manipulation skills and spatial understanding necessary for success in AMS 328. Those students who have not completed at least MATH 116 with a grade of C or better have not fared as well, and many have had to retake this course. The AMS Department would like to ensure that students who have met the prerequisites for AMS 328 have the ability to be successful in the course.

Class (# enrolled start semester)	Math level begin semester	Grade	Class (# enrolled start semester)	Math level begin semester	Grade
AMS 328	117 (1), 116 (3)	A	AMS 328	117 (4), 116 (3)	A
Sp 14 (20)-19	117 (1) 116 (1)	B	Fa 14 (20) - 17	117 (1) 116 (1),096(1)	B
	116 (1), 096 (3)	C		116 (1), 096 (2)	C
	096 (2) 055 (3)	D		096(1), 055(1)	D
	096 (2) 055 (1)	F		055(1)	F
	096 (1)	FN		116 (1)	FN
Class (# enrolled start semester)	Math level begin semester	Grade	Class (# enrolled start semester)	Math level begin semester	Grade
AMS 328	116 (1)	A	AMS 328	116(1),117(1)	A
Su 15 (8) - 3	116 (1)	B	Fa 15 (20)- 20	116(3),117 (2)	B
		C		096(2),116(2), 117(1)	C
	116 (1)	D		055(1),096(1) 116 (2)	D
		F		055(1),096 (1)	F
		FN		055(1),096(1)	FN

5. **Effect on completion of major/minor sequence:** Students should move more efficiently through the major/minor course sequence

6. **Proposed term for implementation: Fall 2016**

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

Department: Architectural and Manufacturing Sciences	**2-5-2016**
OCSE College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Proposal date: 2-5-2016

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

Contact Person: Bryan Reaka, bryan.reaka@wku.edu, 270-745-7032

1. **Identification of course:**
   1.1 Course prefix (subject area) and number: AMS 342
   1.2 Course title: Manufacturing Operations

2. **Current prerequisites:** None

3. **Proposed prerequisites:** Math 116 with a grade of "C" or better, or Math 117 or better

4. **Rationale for the revision of prerequisites:** Evaluation of student performance in this course over the past two years has shown that students who have completed MATH 116 with a grade of C or better and those who have matriculated through a higher level of math have possessed the formula manipulation skills and spatial understanding necessary for success in AMS 342. Those students who have not completed at least MATH 116 with a grade of C or better have not fared as well, and many have had to retake this course. The AMS Department would like to ensure that students who have met the prerequisites for AMS 342 have the ability to be successful in the course.

Class (# enrolled start semester)	Math level begin semester	Grade	Class (# enrolled start semester)	Math level begin semester	Grade
AMS 342	117 (3), 136 (2)	A	AMS 342	117 (2),119(1), 136 (1)	A
Sp 14 (40)-38	117(4), 116 (3)	B	Sp 15 (40) - 33	116 (1), 117(6)	B
	117(6), 116 (7),	C		109(1),116 (7), 117(4)	C
	116(2)096 (5)	D		096(1),116(3), 117 (1)	D
	096 (5), 116 (1)	F		096(2),116 (1)	F
		FN		055(1),116 (1)	FN

5. **Effect on completion of major/minor sequence:** Students should move more efficiently through the major/minor course sequence

6. **Proposed term for implementation: Fall 2016**

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

   Department: Architectural and Manufacturing Sciences **2-5-2016**

OCSE College Curriculum Committee _____

Undergraduate Curriculum Committee _____

University Senate _____

Proposal date: 2-5-2016

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

Contact Person: Bryan Reaka, bryan.reaka@wku.edu, 270-745-7032

1. **Identification of course:**
   1.1 Course prefix (subject area) and number: AMS 352
   1.2 Course title: Food Processing: Unit operations

2. **Current prerequisites:** None

3. **Proposed prerequisites:** Math 116 with a grade of "C" or better, or Math 117 or better

4. **Rationale for the revision of prerequisites:** Evaluation of student performance in this course over the past two years has shown that students who have completed MATH 116 with a grade of C or better and those who have matriculated through a higher level of math have possessed the formula manipulation skills and spatial understanding necessary for success in AMS 352. Those students who have not completed at least MATH 116 with a grade of C or better have not fared as well, and many have had to retake this course. The AMS Department would like to ensure that students who have met the prerequisites for AMS 352 have the ability to be successful in the course.

Class (# enrolled start semester)	Math level begin semester	Grade	Class (# enrolled start semester)	Math level begin semester	Grade
AMS 352	117 (4), 116 (3)	A	AMS 352	116(2), 117(1)	A
Fa 14 (27) - 22	117 (1) 116 (1)	B	Fa 15 (15)-12	116 (1)	B
	116 (2), 096 (3)	C		096(1),116 (3),117(1)	C
	096 (3) 055 (1)	D		055(1),096(1),	D
	096 (1) 055 (1)	F			F
	096 (1) 116 (1)	FN		116(1)	FN

5. **Effect on completion of major/minor sequence:** Students should move more efficiently through the major/minor course sequence

6. **Proposed term for implementation: Fall 2016**

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

Department: Architectural and Manufacturing Sciences **2-5-2016**

OCSE College Curriculum Committee _____

Undergraduate Curriculum Committee _____

University Senate _____

Proposal date: 2-5-2016

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

Contact Person: Bryan Reaka, bryan.reaka@wku.edu, 270-745-7032

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: AMS 371
   - 1.2 Course title: Quality Assurance

2. **Current prerequisites:** None
3. **Proposed prerequisites:** Math 116 with a grade of "C" or better, or Math 117 or better

4. **Rationale for the revision of prerequisites:** Evaluation of student performance in this course over the past two years has shown that students who have completed MATH 116 with a grade of C or better and those who have matriculated through a higher level of math have possessed the formula manipulation skills and spatial understanding necessary for success in AMS 371. Those students who have not completed at least MATH 116 with a grade of C or better have not fared as well, and many have had to retake this course. The AMS Department would like to ensure that students who have met the prerequisites for AMS 371 have the ability to be successful in the course.

Class (# enrolled start semester)	Math level begin semester	Grade	Class (# enrolled start semester)	Math level begin semester	Grade
AMS 371	117 (3)	A	AMS 371	117 (2), 118(1), 127(1)	A
Sp 14 (30)-25	117(3), 116 (3)	B	Su 14 (14)-14	116 (2) 117 (4)	B
	116 (5)	C		116 (2)	C
	096 (6)	D		116 (2)	D
	096 (4), 116 (1)	F			F
		FN			FN

Class (# enrolled start semester)	Math level begin semester	Grade	Class (# enrolled start semester)	Math level begin semester	Grade
AMS 371	116(2), 117(3), 136 (1)	A	AMS 371	136(1), 117 (3)	A
Fa 14 (40)- 38	117(7), 116 (1)	B	Wn 15 (30)-9	117 (1) 116 (1)	B
	117(4), 116 (7),	C		116 (2)	C
	116(2)096 (4)	D		096 (1)	D
	096(4), 116 (1)	F			F
	096(2)	FN			FN

Class (# enrolled start semester)	Math level begin semester	Grade	Class (# enrolled start semester)	Math level begin semester	Grade
AMS 371	117 (3), 136 (1)	A	AMS 371	116(2),117(2)	A
Sp 15 (40)-31	116(1), 117(5), 136 (1)	B	Su 15 (20)- 18	116(3),117(1)	B
	096(1),116 (6),117(2)	C		096(2), 116(2)	C
	096 (5), 116(2)	D		055(1),096(1),116(1)	D
	096(2)	F		096(1)	F
	096 (1),116 (1)	FN		055(1),096(1)	FN
Class (# enrolled start semester)	Math level begin semester	Grade	Class (# enrolled start semester)	Math level begin semester	Grade
AMS 371	116 (5), 117 (4)	A	AMS 371	117(3), 136(1)	A
Fa 15 (45)-45	116 (6),117 (2)	B	Wn 16(26)- 23	096(1),116(5),117(2)	B
	096 (2), 116 (9), 117(4)	C		116 (5),117(2)	C
	055(3), 096(4),116 (3)	D		096 (2),116(1)	D
	055(1)	F		055(1)	F
	116 (2)	FN			FN

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

6. **Proposed term for implementation: Fall 2016**

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

Department: Architectural and Manufacturing Sciences **2-5-2016**

OCSE College Curriculum Committee _____

Undergraduate Curriculum Committee _____

University Senate _____

Proposal date: 2-5-2016

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

Contact Person: Bryan Reaka, bryan.reaka@wku.edu, 270-745-7032

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: AMS 390
   - 1.2 Course title: Project Management

2. **Current prerequisites:** Junior Standing or AMS Major

3. **Proposed prerequisites:** Junior Standing and (AMS Major and Math 116 with a grade of "C" or better, or Math 117 or better)

4. **Rationale for the revision of prerequisites:** Evaluation of student performance in this course over the past two years has shown that students who have completed MATH 116 with a grade of C or better and those who have matriculated through a higher level of math have possessed the formula manipulation skills and spatial understanding necessary for success in AMS 390. Those students who have not completed at least MATH 116 with a grade of C or better have not fared as well, and many have had to retake this course. The AMS Department would like to ensure that students who have met the prerequisites for AMS 390 have the ability to be successful in the course.

Class (# enrolled start semester)	Math level begin semester	Grade	Class (# enrolled start semester)	Math level begin semester	Grade
AMS 390	117 (3), 136 (1)	A	AMS 390	117 (4), 116 (3)	A
Sp 14 (40)-39	117(7), 116 (1)	B	Su 14 (20)-19	117 (1) 116 (1)	B
	117(5), 116 (7)	C		116 (1), 096 (3)	C
	116(2)096 (5)	D		096 (2) 055 (1)	D
	096 (4), 116 (1)	F		096 (1) 055 (1)	F
	096(3)	FN		096 (1)	FN
Class (# enrolled start semester)	Math level begin semester	Grade	Class (# enrolled start semester)	Math level begin semester	Grade
AMS 390	117 (3), 136 (1)	A	AMS 390	237 (1), 117 (1)	A
Fa 14 (40)-39	116(1), 117(7), 136 (1)	B	Wn 15 (30) - 9	117 (2)	B
	096(1),116 (7),117(5)	C		096(1), 116 (2)	C
	116(2)096 (5)	D		096(1) 116 (1)	D
	096 (3), 116 (1)	F			F
	096(3), 116 (1)	FN			FN

Class (# enrolled start semester)	Math level begin semester	Grade	Class (# enrolled start semester)	Math level begin semester	Grade
AMS 390	116 (4), 117 (4)	A	AMS 390	116(1),117 (3)	A
Sp 15 (40)- 39	096(1), 116 (5),117 (2)	B	Su 15 (16)- 9	116 (1)	B
	096 (3), 116 (8), 117(2)	C		096(1),116(1)	C
	055(3), 096(3),116 (2)	D		116 (1)	D
	055(1)	F			F
	116 (1)	FN		116(1)	FN
Class (# enrolled start semester)	Math level begin semester	Grade	Class (# enrolled start semester)	Math level begin semester	Grade
AMS 390	116(2),117(3)	A	AMS 390	116(1),117(1)	A
Fa 15 (45)-45	116(2), 117(9), 136 (1)	B	Wn 16 (28)-23	116(7),117(1)	B
	096(2),116 (7),117(3)	C		116 (8),117(2)	C
	096 (5), 116(2)	D		055(1), 096(1)	D
	055(1),096(3),116(2)	F		096 (1)	F
	055(1),096 (1),116 (1)	FN			FN

5. **Effect on completion of major/minor sequence:** Students should move more efficiently through the major/minor course sequence

6. **Proposed term for implementation: Fall 2016**

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

Department: Architectural and Manufacturing Sciences **2-5-2016**

OCSE College Curriculum Committee _____

Undergraduate Curriculum Committee _____

University Senate _____

Proposal date: 2-5-2016

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

Contact Person: Bryan Reaka, bryan.reaka@wku.edu, 270-745-7032

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: AMS 394
   - 1.2 Course title: Lean Systems

2. **Current prerequisites:** None

3. **Proposed prerequisites:** Math 116 with a grade of "C" or better, or Math 117 or better

4. **Rationale for the revision of prerequisites:** Evaluation of student performance in this course over the past two years has shown that students who have completed MATH 116 with a grade of C or better and those who have matriculated through a higher level of math have possessed the formula manipulation skills and spatial understanding necessary for success in AMS 394. Those students who have not completed at least MATH 116 with a grade of C or better have not fared as well, and many have had to retake this course. The AMS Department would like to ensure that students who have met the prerequisites for AMS 394 have the ability to be successful in the course.

Class (# enrolled start semester)	Math level begin semester	Grade	Class (# enrolled start semester)	Math level begin semester	Grade
AMS 394	117 (2), 116(1)	A	AMS 394	117 (3)	A
Sp 14 (30)-16	117(3), 116 (2)	B	Su 14-(16)-11	116 (3)	B
	116 (5)	C		117(1), 116 (1)	C
	096 (1)	D		116 (2)	D
	096 (2)	F			F
		FN		096 (1)	FN
Class (# enrolled start semester)	Math level begin semester	Grade	Class (# enrolled start semester)	Math level begin semester	Grade
AMS 394	116(2), 117(3), 136 (1)	A	AMS 394	117 (3)	A
Sp 15 (40)- 40	116 (1), 117(5)	B	Su 15 (12) - 8	116 (2)	B
	116 (7),117(4),	C		116(1)	C
	055(1),096(3),116(3)	D		116 (1)	D
	055(2),096(4), 116 (1)	F		096(1)	F
	096(2), 116(1)	FN			FN

Class (# enrolled start semester)	Math level begin semester	Grade
AMS 394	116(2),117(2),119(1)	A
Fa 15 (45) - 45	116 (2), 117(8)	B
	109(1),116 (12), 117(3)	C
	055(2),096(1),116(3), 117 (1)	D
	096(2),116 (1),117(1)	F
	055(1),116 (2)	FN

5. **Effect on completion of major/minor sequence:** Students should move more efficiently through the major/minor course sequence

6. **Proposed term for implementation: Fall 2016**

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

Department: Architectural and Manufacturing Sciences **2-5-2016**

OCSE College Curriculum Committee _____

Undergraduate Curriculum Committee _____

University Senate _____

Proposal date: 2-5-2016

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

Contact Person: Bryan Reaka, bryan.reaka@wku.edu, 270-745-7032

1. **Identification of course:**
   1.1 Course prefix (subject area) and number: AMS 396
   1.2 Course title: Introduction to Supply Chain Management
2. **Current prerequisites:** None
3. **Proposed prerequisites:** Math 116 with a grade of "C" or better, or Math 117 or better
4. **Rationale for the revision of prerequisites:** Evaluation of student performance in this course over the past two years has shown that students who have completed MATH 116 with a grade of C or better and those who have matriculated through a higher level of math have possessed the formula manipulation skills and spatial understanding necessary for success in CM 250. Those students who have not completed at least MATH 116 with a grade of C or better have not fared as well, and many have had to retake this course. The AMS Department would like to ensure that students who have met the prerequisites for CM 250 have the ability to be successful in the course.

Class (# enrolled start semester)	Math level begin semester	Grade	Class (# enrolled start semester)	Math level begin semester	Grade
AMS 396	116(3), 117(2)	A	AMS 396	117 (2),119(3)	A
Fa 14 (27)- 26	116(1), 117(2), 137(1)	B	Sp 15 (40) - 36	116 (1), 117(6)	B
	096(3), 116 (3)	C		109(1),116 (8), 117(4)	C
	055(1), 096(3), 117(1)	D		096(1),116(3), 117 (1)	D
	055 (2), 096(1),116(1)	F		096(3),116 (1)	F
	096(1), 116(1)	FN		055(1),116 (1)	FN

Class (# enrolled start semester)	Math level begin semester	Grade
AMS 396	116(1)	A
Su 15 (13) - 10	116(3)	B
	116(1),117(1)	C
	096(1),116(1)	D
		F
	096(2)	FN

5. **Effect on completion of major/minor sequence:** Students should move more efficiently through the major/minor course sequence

6. **Proposed term for implementation: Fall 2016**

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

Department: Architectural and Manufacturing Sciences	**2-5-2016**
OCSE College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Proposal date: 2-5-2016

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

Contact Person: Bryan Reaka, bryan.reaka@wku.edu, 270-745-7032

1. **Identification of course:**
   1.1 Course prefix (subject area) and number: CM 250
   1.2 Course title: Contract Documents

2. **Current prerequisites:** None

3. **Proposed prerequisites:** Math 116 with a grade of "C" or better, or Math 117 or better

4. **Rationale for the revision of prerequisites:** Evaluation of student performance in this course over the past two years has shown that students who have completed MATH 116 with a grade of C or better and those who have matriculated through a higher level of math have possessed the formula manipulation skills and spatial understanding necessary for success in CM 250. Those students who have not completed at least MATH 116 with a grade of C or better have not fared as well, and many have had to retake this course. The AMS Department would like to ensure that students who have met the prerequisites for CM 250 have the ability to be successful in the course.

Class (# enrolled start semester)	Math level begin semester	Grade	Class (# enrolled start semester)	Math level begin semester	Grade
CM 250	117 (3), 136 (1)	A	CM 250	117(2)	A
Fa 14 (40)- 37	117(7), 116 (1)	B	Fa 15 (25)-23	116(5), 117(3)	B
	117(5), 116 (7),	C		096(1),116(3),117(1)	C
	116(2)096 (5)	D		096(2),116(2)	D
	096 (4), 116 (1)	F		096(1)	F
	096(1)	FN		116(3)	FN

5. **Effect on completion of major/minor sequence:** Students should move more efficiently through the major/minor course sequence

6. **Proposed term for implementation: Fall 2016**

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

Department: Architectural and Manufacturing Sciences **2-5-2016**

OCSE College Curriculum Committee _____

Undergraduate Curriculum Committee _____

University Senate _____

Proposal Date: 20 February 2016

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

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 745-5048

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: BIOL 208
   - 1.2 Course title: General Microbiology Laboratory

2. **Current prerequisites/corequisites:**
   Prerequisites or corequisite: BIOL 207

3. **Proposed corequisites:**
   Prerequisites/concurrent prerequisite: BIOL 207
   Corequisites: None

4. **Rationale for the revision of prerequisites/corequisites:** The change of the corequisite link to a prerequisite/concurrent prerequisite for BIOL 207 (General Microbiology) to accommodate a student who wishes to take the lecture without taking the lab at the same time.

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

6. **Proposed term for implementation:** Fall 2016

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

Department of Biology	20 February 2016
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 20 February 2016

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

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 745-5048

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: BIOL 319
   - 1.2 Course title: Introduction to Molecular and Cell Biology

2. **Current prerequisites/corequisites:**
   Prerequisites: BIOL 120/121 and BIOL 122/123 with grades of "C" or higher; CHEM 120/121
   Corequisites: BIOL 322 or 337

3. **Proposed corequisites:**
   Prerequisites: BIOL 120/121 and BIOL 122/123 with grades of "C" or higher; CHEM 120/121
   Corequisites: None

4. **Rationale for the revision of prerequisites/corequisites:** The two corequisites, BIOL 322 (Introduction to Molecular and Cell Biology Laboratory) or BIOL 337 (Genetics Laboratory), are being removed to accommodate a student who wishes to take the lecture without taking the lab at the same time. Prerequisite requirements will not change.

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

6. **Proposed term for implementation:** Fall 2016

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

Department of Biology	20 February 2016
Ogden College Curriculum Committee	
Professional Education Council	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 20 February 2016

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

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: BIOL 322
   - 1.2 Course title: Introduction to Molecular and Cell Biology Laboratory

2. **Current corequisites:**
   BIOL 319 or BIOL 327. There are no current prerequisites.

3. **Proposed prerequisites/corequisites:**
   Prerequisite/concurrent prerequisite: BIOL 319
   Corequisite: None

4. **Rationale for the revision of prerequisites/corequisites:** Switching from corequisite to a prerequisite/concurrent prerequisite will allow students to take the lecture (BIOL 319, Introduction to Molecular and Cell Biology) counterpart alone, concurrently with the lab, or prior to taking the lab. The content taught in BIOL 327 (Genetics) is no longer an appropriate pairing with the concepts currently delivered in this lab course.

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

6. **Proposed term for implementation:** Fall 2016

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

Department of Biology	20 February 2016
Ogden College Curriculum Committee	
Professional Education Council	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 20 February 2016

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

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: BIOL 328
   - 1.2 Course title: Immunology

2. **Current prerequisites:**
   Prerequisites: BIOL 319 or BIOL 327 and BIOL 322 or BIOL 337

3. **Proposed prerequisites:**
   Prerequisites: BIOL 319/322 or BIOL 327/337

4. **Rationale for the revision of prerequisites/corequisites:** The content delivered in BIOL 319 and BIOL 322 (Introduction to Molecular and Cell Biology) is best kept as a paired course instead of allowing the Genetics Lab (BIOL 337) to serve as alternative lab experience. The same is true of retaining BIOL 327 and BIOL 337 together in lieu of allowing BIOL 322 to serve as the lab course for BIOL 337.

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

6. **Proposed term for implementation:** Fall 2016

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

Department of Biology	20 February 2016
Ogden College Curriculum Committee	
Professional Education Council	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 20 February 2016

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

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 745-5048

1. Identification of course:

1.1 Course prefix (subject area) and number: BIOL 331

1.2 Course title: Animal Physiology Laboratory

2. Current prerequisites/corequisites:

Prerequisites or corequisite: BIOL 330

3. Proposed corequisites:

Prerequisites/concurrent prerequisite: BIOL 330

Corequisites: None

4. Rationale for the revision of prerequisites/corequisites: The change of the corequisite link to a prerequisite/concurrent prerequisite for BIOL 330 (Animal Physiology) to accommodate a student who wishes to take the lecture without taking the lab at the same time.

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

6. Proposed term for implementation: Fall 2016

7. Dates of prior committee approvals:

Department of Biology	20 February 2016
Ogden College Curriculum Committee	
Professional Education Council	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 20 February 2016

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

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

1. **Identification of course:**
   1.1 Course prefix (subject area) and number: BIOL 337
   1.2 Course title: Genetics Laboratory

2. **Current corequisites:**
   BIOL 319 or BIOL 327. There are no current prerequisites.

3. **Proposed prerequisites/corequisites:**
   Prerequisite/concurrent prerequisite: BIOL 327
   Corequisite: None

4. **Rationale for the revision of prerequisites/corequisites:** Switching from corequisite to a prerequisite/concurrent prerequisite will allow students to take the lecture (BIOL 327, Genetics) counterpart alone, concurrently with the lab, or prior to taking the lab. The content taught in BIOL 319 (Introduction to Molecular and Cell Biology) is no longer an appropriate pairing with the concepts currently delivered in this lab course.

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

6. **Proposed term for implementation:** Fall 2016

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

Department of Biology	20 February 2016
Ogden College Curriculum Committee	
Professional Education Council	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 20 February 2016

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

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 745-5048

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: BIOL 403
   - 1.2 Course title: Molecular Basis of Cancer

2. **Current prerequisites/corequisites:**
   Prerequisites: BIOL 319 and BIOL 322 or BIOL 337

3. **Proposed corequisites:**
   Prerequisites: BIOL 319/322

4. **Rationale for the revision of prerequisites/corequisites:** The content taught in BIOL 337 (Genetics Lab) is no longer an appropriate pairing with the concepts currently delivered in BIOL 319 (Introduction to Molecular and Cell Biology). BIOL 322 (Introduction to Molecular and Cell Biology Lab) is the appropriate lab for BIOL 319.

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

6. **Proposed term for implementation:** Fall 2016

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

Department of Biology	20 February 2016
Ogden College Curriculum Committee	
Professional Education Council	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 20 February 2016

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

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 745-5048

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: BIOL 407
   - 1.2 Course title: Virology

2. **Current prerequisites/corequisites:**
   Prerequisites: BIOL 319 and BIOL 322 or BIOL 337

3. **Proposed corequisites:**
   Prerequisites: BIOL 319/322

4. **Rationale for the revision of prerequisites/corequisites:** The content taught in BIOL 337 (Genetics Lab) is no longer an appropriate pairing with the concepts currently delivered in BIOL 319 (Introduction to Molecular and Cell Biology). BIOL 322 (Introduction to Molecular and Cell Biology Lab) is the appropriate lab for BIOL 319.

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

6. **Proposed term for implementation:** Fall 2016

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

Department of Biology	20 February 2016
Ogden College Curriculum Committee	
Professional Education Council	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 20 February 2016

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

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: BIOL 411
   - 1.2 Course title: Cell Biology

2. **Current prerequisites:**
   Prerequisites: BIOL 319 or BIOL 327 and BIOL 322 or BIOL 337

3. **Proposed prerequisites:**
   Prerequisites: BIOL 319/322 or BIOL 327/337

4. **Rationale for the revision of prerequisites/corequisites:** The content delivered in BIOL 319 and BIOL 322 (Introduction to Molecular and Cell Biology) is best kept as a paired course instead of allowing the Genetics Lab (BIOL 337) to serve as alternative lab experience. The same is true of retaining BIOL 327 and BIOL 337 together in lieu of allowing BIOL 322 to serve as the lab course for BIOL 337.

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

6. **Proposed term for implementation:** Fall 2016

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

Department of Biology	20 February 2016
Ogden College Curriculum Committee	
Professional Education Council	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 20 February 2016

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

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 745-5048

1. Identification of course:

1.1 Course prefix (subject area) and number: BIOL 412

1.2 Course title: Cell Biology Laboratory

2. Current prerequisites/corequisites:

Prerequisites or corequisite: BIOL 411

3. Proposed corequisites:

Prerequisites/concurrent prerequisite: BIOL 411

Corequisites: None

4. Rationale for the revision of prerequisites/corequisites: The change of the corequisite link to a prerequisite/concurrent prerequisite for BIOL 411 (Cell Biology) to accommodate a student who wishes to take the lecture without taking the lab at the same time.

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

6. Proposed term for implementation: Fall 2016

7. Dates of prior committee approvals:

Department of Biology	20 February 2016
Ogden College Curriculum Committee	
Professional Education Council	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 20 February 2016

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

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

1. Identification of course:

1.1 Course prefix (subject area) and number: BIOL 440

1.2 Course title: Developmental Genetics

2. Current prerequisites:

Prerequisites: BIOL 319 or BIOL 327 and BIOL 322 or BIOL 337

3. Proposed prerequisites:

Prerequisites: BIOL 319/322 or BIOL 327/337

4. Rationale for the revision of prerequisites/corequisites: The content delivered in BIOL 319 and BIOL 322 (Introduction to Molecular and Cell Biology) is best kept as a paired course instead of allowing the Genetics Lab (BIOL 337) to serve as alternative lab experience. The same is true of retaining BIOL 327 and BIOL 337 together in lieu of allowing BIOL 322 to serve as the lab course for BIOL 337.

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

6. Proposed term for implementation: Fall 2016

7. Dates of prior committee approvals:

Department of Biology	20 February 2016
Ogden College Curriculum Committee	
Professional Education Council	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 11/20/2015

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

Contact Person: Philip Lienesch, Philip.Lienesch@wku.edu, (270) 745-6006

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: BIOL 446
   - 1.2 Course title: Biochemistry I

2. **Current prerequisites/corequisites/special requirements:**
   Prerequisite: CHEM 314 or 340

3. **Proposed prerequisites/corequisites/special requirements:**
   Prerequisite: CHEM 314 or 340 with grades of "C" or better

4. **Rationale for the revision of prerequisites/corequisites/special requirements:**
   The proposed revisions are necessary to ensure that students have adequately learned the chemistry prerequisite material before taking this course.

5. **Effect on completion of major/minor sequence:**
   Not applicable

6. **Proposed term for implementation:**
   Fall 2016

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

Department of Biology	20 February 2016
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 1/21/2016

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

Contact Person: Philip Lienesch, Philip.Lienesch@wku.edu, (270) 745-6006

1. Identification of course:

1.1 Course prefix (subject area) and number: BIOL 447

1.2 Course title: Biochemistry Laboratory

2. Current prerequisites/corequisites/special requirements:

Corequisite or prerequisite: BIOL/CHEM 446

3. Proposed prerequisites/corequisites/special requirements:

Prerequisite/concurrent prerequisite: BIOL446 or CHEM 446 with a grade of "C" or better

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

BIOL 447 or CHEM 447 may be taken concurrently with, or prior to, BIOL 446 or CHEM 446. In the latter case, the proposed revisions are necessary to ensure that students have adequately learned the prerequisite material before taking this course.

5. Effect on completion of major/minor sequence:

Not applicable

6. Proposed term for implementation:

Fall 2016

7. Dates of prior committee approvals:

Department of Biology	20 February 2016
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 20 February 2016

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

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 745-5048

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: BIOL 464
   - 1.2 Course title: Endocrinology

2. **Current prerequisites/corequisites:**
   Prerequisites: BIOL 319 and BIOL 322 or BIOL 337 and BIOL 446/447 (recommended)

3. **Proposed corequisites:**
   Prerequisites: BIOL 319/322 and BIOL 446/447 (recommended)

4. **Rationale for the revision of prerequisites/corequisites:** The content taught in BIOL 337 (Genetics Lab) is no longer an appropriate pairing with the concepts currently delivered in BIOL 319 (Introduction to Molecular and Cell Biology). BIOL 322 (Introduction to Molecular and Cell Biology Lab) is the appropriate lab for BIOL 319.

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

6. **Proposed term for implementation:** Fall 2016

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

Department of Biology	20 February 2016
Ogden College Curriculum Committee	
Professional Education Council	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 20 February 2016

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

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 745-5048

1. **Identification of course:**
   1.1 Course prefix (subject area) and number: BIOL 496
   1.2 Course title: Plant Biotechnology

2. **Current prerequisites/corequisites:**
   Prerequisites: BIOL 319 and BIOL 322 or BIOL 337; AGRO 110 or BIOL 222/223

3. **Proposed corequisites:**
   Prerequisites: BIOL 319/322; AGRO 110 or BIOL 222/223

4. **Rationale for the revision of prerequisites/corequisites:** The content taught in BIOL 337 (Genetics Lab) is no longer an appropriate pairing with the concepts currently delivered in BIOL 319 (Introduction to Molecular and Cell Biology). BIOL 322 (Introduction to Molecular and Cell Biology Lab) is the appropriate lab for BIOL 319.

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

6. **Proposed term for implementation:** Fall 2016

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

Department of Biology	20 February 2016
Ogden College Curriculum Committee	
Professional Education Council	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 11/20/2015

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

Contact Person: Prof. Darwin Dahl, darwin.dahl@wku.edu, (270) 745-5074

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: CHEM 446
   - 1.2 Course title: BIOCHEMISTRY I

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

   Prerequisite: CHEM 314 or 340.

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

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

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

   The proposed revisions are necessary to ensure that students have adequately mastered the prerequisite material before taking this course.

5. **Effect on completion of major/minor sequence:**

   Not applicable

6. **Proposed term for implementation:**

   Fall 2016

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

Department of Chemistry	**11/20/2015**
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 11/20/2015

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

Contact Person: Prof. Darwin Dahl, darwin.dahl@wku.edu, (270) 745-5074

1. Identification of course:

1.1 Course prefix (subject area) and number: CHEM 447

1.2 Course title: BIOCHEMISTRY LABORATORY

2. Current prerequisites/corequisites/special requirements:

Corequisite or prerequisite: BIOL / CHEM 446.

3. Proposed prerequisites/corequisites/special requirements:

Prerequisite or corequisite: BIOL / CHEM 446 with a grade of "C" or better.

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

BIOL / CHEM 447 may be taken concurrently with or prior to BIOL / CHEM 446. In the latter case, the proposed revisions are necessary to ensure that students have adequately mastered the prerequisite material before taking this course.

5. Effect on completion of major/minor sequence:

Not applicable

6. Proposed term for implementation:

Fall 2016

7. Dates of prior committee approvals:

Department of Chemistry	**11/20/2015**
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 1/27/2016

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

Contact Person: Warren Campbell, warren.campbell@wku.edu, 5-8988

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: CE 332
   - 1.2 Course title: Transportation Engineering

2. **Current prerequisites:**
   CE 160 and CE 161

3. **Proposed prerequisites:**
   CE 160 and 161, EM 222, PHYS 255

4. **Rationale for the revision of prerequisites:**
   Calculus and basic mechanics are used in vehicle performance calculations.

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

6. **Proposed term for implementation:** Spring 2017

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

Department of Engineering	2/4/2016
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 2/17/16

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

Contact Person: Walter Collett, walter.collett@wku.edu, 5-2016

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: EE 300
   - 1.2 Course title: Electrical Engineering Design III

2. **Current prerequisites:**
   Junior standing in Electrical Engineering and consent of instructor.

3. **Proposed prerequisites:**
   Completion of Electrical Engineering pre-major requirements and EE 200, or consent of instructor.

4. **Rationale for the revision of prerequisites:**
   The electrical engineering faculty agree that completion of pre-major courses and the sophomore design course (EE 200) are sufficient to prepare students for success in the course. It has been noted that in some cases students may not precisely follow the recommended degree path (due, for example, to transferring from a two-year college), but may still have sufficient background for success in the course. The alternative 'consent of instructor' prerequisite is included to ensure that these students still progress in a timely manner toward completion of the degree.

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

6. **Proposed term for implementation:** Fall 2016

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

Department of Engineering	2/18/2016
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 2/17/16

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

Contact Person: Walter Collett, walter.collett@wku.edu, 5-2016

1. **Identification of proposed course:**
   - 1.1 Course prefix (subject area) and number: EE 473
   - 1.2 Course title: Introduction to Electromagnetic Fields and Waves
   - 1.3 Credit Hours: 3

2. **Proposed course title:** Electromagnetics I

3. **Proposed abbreviated course title:**
   Electromagnetics I

4. **Rationale for the revision of course title:**
   There are two reasons for making the proposed change in the full and abbreviated titles:
   - It is anticipated that a second, elective course on the subject matter, entitled "Electromagnetics II," will be proposed at a future time;
   - The current abbreviated course title is "Introduction to EM Waves." It is believed that "Electromagnetics I" more accurately reflects the course content.

5. **Proposed term for implementation:** Fall 2016

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

Department of Engineering	2/18/2016
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 2/12/16

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

Contact Person: Katie Algeo, Katie.Algeo@wku.edu, 745-5922

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: GEOG 330
   - 1.2 Course title: Cultural Geography

2. **Current prerequisites:** GEOG 110; 21 hours of Foundations and Explorations Courses, or junior status

3. **Proposed prerequisites:** 21 hours of Foundations and Explorations Courses, or junior status

4. **Rationale for the revision of prerequisites:**
   GEOG 330 is a Colonnade Connections Social and Cultural course. To broaden its accessibility to all undergraduate majors, it should have no Geography prerequisite. Core concepts from GEOG 110 necessary to understand course content can be covered, as needed, with the introduction of those topics.

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

6. **Proposed term for implementation: Fall 2016**

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

Department of Geography and Geology	**2/29/2016**
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 2/12/16

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

Contact Person: Katie Algeo, Katie.Algeo@wku.edu, 745-5922

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: GEOG 378
   - 1.2 Course title: Food, Culture, and Environment

2. **Current prerequisites:** GEOG 110; 21 hours of Foundations and Explorations Courses, or junior status

3. **Proposed prerequisites:** 21 hours of Foundations and Explorations Courses, or junior status

4. **Rationale for the revision of prerequisites:**
   GEOG 378 is a Local-to-Global Colonnade Connections course. To broaden its accessibility to all undergraduate majors, it should have no Geography prerequisite. Core concepts from GEOG 110 necessary to understand course content can be covered, as needed, with the introduction of those topics.

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

6. **Proposed term for implementation: Fall 2016**

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

Department of Geography and Geology	**2/29/2016**
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: December 4, 2015

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

Contact Person: Fred Siewers (fred.siewers@wku.edu) 5-4555

1. **Identification of proposed course:**
   - 1.1 Course prefix (subject area) and number: GEOL 325
   - 1.2 Course title: Introduction to Minerals and Rocks
   - 1.3 Credit Hours: 3 hours

2. **Proposed course title:** Intro to Minerals and Crystalline Rocks

3. **Proposed abbreviated course title:** Intro Minerals Cryst Rocks
(maximum of 30 characters/spaces)

4. **Rationale for the revision of course title:** Clarifies the content and focus of the course.

5. **Proposed term for implementation:** 201710

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

Department of Geography and Geology	**12/4/2015**
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 2-8-16

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

Contact Person: Kanita DuCloux, kanita.ducloux@wku.edu, 5-8791

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: MATH 403
   - 1.2 Course title: Geometry for Elementary and Middle School Teachers

2. **Current prerequisites/corequisites/special requirements:**
   MATH 205 and MATH 206 with a grade of C or better

3. **Proposed prerequisites/corequisites/special requirements:**
   MATH 206 and MATH 225, both with grades of C or better

4. **Rationale for the revision of prerequisites/corequisites/special requirements:**
   Departmental evaluation of student success in MATH 403 indicated that students possessed deficiencies in their ability to generalize, reason abstractly, and justify their reasoning. As a result, MATH 225 was created to address these issues. MATH 205 was deleted as a prerequisite since it is a prerequisite for MATH 206.

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

6. **Proposed term for implementation:**
   Fall 2017

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

Mathematics Department	2/19/16
OCSE Curriculum Committee	
Professional Education Council	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 2-8-16

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

Contact Person: Kanita DuCloux, kanita.ducloux@wku.edu, 5-8791

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: MATH 411
   - 1.2 Course title: Problem Solving for Elementary and Middle Grades Teachers

2. **Current prerequisites/corequisites/special requirements:**
   MATH 205, MATH 206 and MATH 308 with a grade of C or better

3. **Proposed prerequisites/corequisites/special requirements:**
   MATH 206, MATH 225, and MATH 308, all with grades of C or better

4. **Rationale for the revision of prerequisites/corequisites/special requirements:**
   Departmental evaluation of student success in MATH 411 indicated that students possessed deficiencies in their ability to generalize, reason abstractly, and justify their reasoning. As a result, MATH 225 was created to address these issues. MATH 205 was deleted as a prerequisite since it is a prerequisite for MATH 308.

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

6. **Proposed term for implementation:**
   Fall 2017

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

Mathematics Department	2/19/16
OCSE Curriculum Committee	
Professional Education Council	
Undergraduate Curriculum Committee	
University Senate	

/19/16/Proposal Date: 2-8-16

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

Contact Person: Kanita DuCloux, kanita.ducloux@wku.edu, 5-8791

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: MATH 413
   - 1.2 Course title: Algebra and Technology for Middle School Teachers

2. **Current prerequisites/corequisites/special requirements:**
   MATH 117 or MATH 136 with a grade of C or better

3. **Proposed prerequisites/corequisites/special requirements:**
   MATH 225 with a grade of C or better

4. **Rationale for the revision of prerequisites/corequisites/special requirements:**
   Departmental evaluation of student success in MATH 413 indicated that students possessed deficiencies in their ability to generalize, reason abstractly, and justify their reasoning. As a result, MATH 225 was created to address these issues. By changing the prerequisite to MATH 225, the middle school teachers will have to successfully complete at least two courses (MATH 225 and its prerequisite, MATH 136) that require a higher level of abstract thinking.

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

6. **Proposed term for implementation:**
   Fall 2017

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

Mathematics Department	2/19/16
OCSE Curriculum Committee	
Professional Education Council	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: January 25, 2016

College Name: Ogden College of Science and Engineering
Department Name: Agriculture
Proposal to Create a New Course
(Action Item)

Contact Person: Dominique Gumirakiza, dominique.gumirakiza@wku.edu, 270-745-5959.

1. Identification of proposed course:

1.1 Course prefix (subject area) and number: AGEC 160
1.2 Course title: Introduction to Agribusiness and Entrepreneurship
1.3 Abbreviated course title: Introduction to Agribusiness
(maximum of 30 characters or spaces)
1.4 Credit hours: 3 Variable credit (yes or no): No
1.5 Grade type: Standard Letter Grade (A, B, C, D, F)
1.6 Prerequisites/corequisites: N/A
1.7 Course description:

Overview of various aspects of agribusiness and agricultural economics with emphasis on entrepreneurial skills. Technical, managerial, and professional qualifications for agribusiness-related careers

2. Rationale:

2.1 Reason for developing the proposed course:

Agribusiness is the division of agricultural systems that supports other areas of agriculture (animal science, pre-vet, soil, plant, turf, horticulture…) by providing the managerial, processing, financing, accounting, marketing, selling/merchandising, and other services necessary for agricultural production and exchange. Currently, the department offers no lower-division course to introduce students to agribusiness and agricultural economics and/or agribusiness entrepreneurship. This course provides an introduction to agribusiness, agricultural economics, entrepreneurship, marketing, financial accounting and management as they apply to agriculture. In addition, AGEC 160 identifies career and business opportunities in the agriculture sector and provides a basic overview of technical, managerial, and professional skills/requirements to qualify for those opportunities. Students will discover how agribusiness entrepreneurship and agricultural economics relate to and complement other areas of agriculture. Lastly, this course will have a chapter to introduce students to global food markets as an effort to support the university vision (a leading American university with international reach).

2.2 Projected enrollment in the proposed course:

Based on the facts that AGEC 160 will be a core course for all agriculture students and that students from other departments across the university will be allowed to enroll, it is expected that 70 students will enroll each semester.

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

This course is a good complement to existing department courses. It supports all courses in other concentrations (animal science, soil, plant, turf, and horticulture) by providing a basic understanding of skills needed to create and/or manage agribusiness ventures in their respective areas. For those students whose area of concentration is agribusiness, this course prepares them to take upper-division courses such as AGEC 360: Agricultural Economics, AGEC 361: Farm Management, AGEC 366: Agricultural Sales and Services, AGEC 463: Agricultural Finance, and AGEC 362: Agricultural Marketing.

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

The fact that AGEC 160 focuses on basic concepts related to agribusiness with emphasis on agricultural entrepreneurship makes it unique and different from other introductory business courses such as BUS 100C.

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

A great majority of agricultural departments (or equivalents) in other universities offer a similar course. For example, Murray State University offers AGR 130: Intro. to Agribusiness, Cal Pol San Luis Obispo offers AGB 101: Introduction to Agribusiness, Western Illinois University offers AGR 2013: Introduction to Agribusiness, North Arkansas College offers AGRI 1004: Intro to Agribusiness. Adams State University in Colorado offers BUS 105: Introduction to Agribusiness, Purdue University offers AGR 11200; Introduction to Agricultural Economics, just to name a few.

3. Discussion of proposed course:

3.1 Schedule type: Lecture

3.2 Learning Outcomes:

Upon completion of the course students will be able to:

- Describe the scope of agribusiness system and identify career opportunities therein, together with skills/requirements to qualify for the opportunities
- Explain various aspects of agribusiness, agricultural economics, and entrepreneurial skills in the agriculture sector
- Identify ways in which agribusiness entrepreneurship and agricultural economics support other areas of agriculture
- Explain global food markets and the role of USDA Foreign Agricultural Service

3.3 Content outline:

This outline provides a summary of the major units and topics to be covered in the proposed course. More details and weekly topics are included in the syllabus.

- Overview of agribusiness and career opportunities

- Overview of entrepreneurship skills in an agricultural environment
- Basic agribusiness management
- Overview of agricultural economics
- Basics of an agricultural marketing system
- Basics of agricultural accounting
- Introduction to global food markets
- Applying agribusiness concepts to specific agriculture fields

3.4 Student expectations and requirements: Students will be evaluated based on:

- Attendance
- Active participation in class discussions
- Tests and quizzes
- Reading and paper assignments
- Responsibility, initiative and teamwork
- Compliance with academic policies

3.5 Tentative texts and course materials:

1. Textbook:

Because this course will introduce students to various subjects of agribusiness, entrepreneurship, and agricultural economics, there is no one single textbook to be required. Class notes and PowerPoint slides will be drawn from various sources and be provided to students by the instructor.

2. Other course materials: Handouts

4. Resources:

4.1 Library resources: N/A
4.2 Computer resources: N/A
4.3 Other resources: N/A

5. Budget implications:

5.1 Proposed method of staffing:
Current Agriculture Department faculty
5.2 Special equipment needed:
N/A
5.3 Expendable materials needed:
N/A
5.4 Laboratory materials needed:
N/A

6. Proposed term for implementation: Fall 2016

7. Dates of prior committee approvals:

Department of Agriculture	January 28, 2016
Ogden College Curriculum Committee	
Professional Education Council	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: December 07, 2015

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

Dr. J Dominique Gumirakiza, dominique.gumirakiza@wku.edu, 270-745-5959.

1. Identification of proposed course:

1.1 Course prefix (subject area) and number: AGEC 261
1.2 Course title: Agricultural Accounting
1.3 Abbreviated course title:
(maximum of 30 characters or spaces)
Agricultural Accounting
1.4 Credit hours: 3 Variable credit (yes or no): No
1.5 Grade type: Standard Letter Grade (A, B, C, D, F)
1.6 Prerequisites/corequisites: None
1.7 Course description:

Follows Farm Financial Standards Council guidelines for agricultural producers to analyze farm/ranch transactions & accounts, make journal & ledger entries, and produce farm financial statements

2. Rationale:

2.1 Reason for developing the proposed course:

Most agricultural businesses fail due to lack of record keeping and adequate accounting (Kay, et al., 2012[1] and Ricketts, 2009[2]). Agriculture is a specialized field of business with several accounts that are different from accounts used in common business. Specific technical terms and the biological nature of crops and animals, and federal programs for farmers make agricultural accounting a distinct subject. Examples of agricultural accounts include (but are not limited to) changes in investments in perennial crops, proceeds from government programs, feed inventory raised for use, crop inventory raised for sale, cash sales of market livestock, fertilizers, and livestock inventory. Records sufficient to complete and document tax forms are required for every farm in the U.S. The Farm Financial Standards Council has developed accounting procedures and guidelines that are specific to agricultural producers. Several universities with agriculture programs offer agricultural accounting courses. Currently, WKU does not offer a course in which agriculture major students can learn and apply principles and techniques of agricultural recordkeeping. Hence, this course is intended to empower students with skills to prepare and interpret agricultural financial statements required for both internal

[1] Kay, Edwards, and Duffy, 2015. "Farm management", 8th Edition, McGraw-Hill, Inc. ISBN 978-0-07-340094-5

[2] Cliff Rickets and Kristina Ricketts. 2009. *Agribusiness: Fundamentals and Applications*, 2nd edition. Cengage Learning. ISBN-13: 978-1418032319

(management and decision making) and external (taxes, lenders, agricultural investors, policy makers) purposes.

2.2 Projected enrollment in the proposed course:

Base upon the fact that this course will be a prerequisite to AGEC 361: Farm Management which is a required class for agribusiness students, offered each Spring with average enrollment of 25, it is expected that at least 20 students will enroll in AGEC 261 each Fall semester

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

This course is a good complement to several existing courses in the department. Among many courses offered by the department of Agriculture, the course is closely related to AGEC 361: Farm Management, AGEC 366: Agricultural Sales and Services, AGEC 463: Agricultural Finance, and AGEC 362: Agricultural Marketing.

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

This course is related to ACCT 200 (Intro Accounting – Financial) offered by the department of accounting in the Gordon Ford College of Business. However, while ACCT 200 follows the Generally Accepted Accounting Principles (GAAP), AGEC 261 is a specialized agriculture-based accounting course and will follow the guidelines that Farm Financial Standards Council has set forth for agricultural producers to follow. The Farm Financial Standards Council mission is "to create and promote uniformity and integrity in financial reporting and analysis for agricultural producers" (FFSC, 2016)[3].

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

A great majority of agricultural departments (or equivalents) in other universities offer a similar course. For example, Eastern Kentucky University offers AGR 409: Ag Business Records, California State University offers ABUS 261: Farm Accounting, Illinois State University offers AGR 312: Accounting for Agricultural Producers, AECN 301: Farm Accounting Analysis and Tax Management, Purdue University offers AGEC 31100: Accounting for Farm Business Planning.

3. Discussion of proposed course:

3.1 Schedule type: Lecture/Lab

3.2 Learning Outcomes:

Upon completion of the course students will be able to:

- Analyze farm financial, investment, and operating transactions
- Describe and appropriately use ledger accounts; especially those that are unique to the agriculture sector
- Follow the Farm Financial Standards Council guidelines for agricultural producers to bookkeep the farm transactions

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[3] FFSC. 2016. Mission of Farm Financial Standards Council. Available at http://www.ffsc.org/index.php/7-2/

- Produce farm financial statements and other farm management reports necessary for daily farm management decisions.

3.3 Content outline:

This outline provides a summary of the major units and topics to be covered in the proposed course. More details and weekly topics are included in the syllabus.

- The "Guidelines" for agricultural producers and how they differ from the GAAP
- Introduction to farm financial statements; an overview of agricultural accounting
- Farm's chart of accounts
- Journal entries of farm-based financial, investing, and operating transactions
- Posting journal entries in a ledger and making a trial balance
- End-of-year farm accounting procedures
- Farm financial statements preparation and closing entries
- Farm revenue and expense measurements and farm income tax reporting
- Valuation of farm assets, part one—current assets
- Valuation of farm assets, part two—non-current assets
- Valuation of liabilities and farm owner's equity
- Use of agriculture-based accounting software programs
- Completion of an agriculture recordkeeping process for a "mock" agriculture business using accounting software

3.4 Student expectations and requirements:

- Attendance
- Active participation in class discussions
- Tests and quizzes
- Reading and paper assignments
- Responsibility, initiative and teamwork
- Compliance with academic policies

3.5 Tentative texts and course materials:

1. Textbook: Wheeling, B.M. *Introduction to Agricultural Accounting*. Cengage Learning; New edition.

2. Other course materials: "Financial Guidelines for Agriculture" available at http://www.ffsc.org/index.php/guidelines/

4. Resources:

4.1 Library resources: N/A

4.2 Computer resources: Students will use computer labs available on campus and/or their own computers

4.3 Other resources: N/A

5. **Budget implications:**
   - 5.1 Proposed method of staffing:
     Current Agriculture Department faculty
   - 5.2 Special equipment needed:
     N/A
   - 5.3 Expendable materials needed:
     N/A
   - 5.4 Laboratory materials needed:
     QuickBooks accounting software (free 30-day version)

6. **Proposed term for implementation:** Fall 2016

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

Department of Agriculture	February 25, 2016
Ogden College Curriculum Committee:	
Undergraduate Curriculum Committee	
University Senate	

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

Contact Person: Thomas Kingery, thomas.kingery@wku.edu, 270-745-5966

1. Identification of proposed course:

1.1 Course prefix (subject area) and number: AGED 200
1.2 Course title: Foundations of Agricultural Education.
1.3 Abbreviated course title: Foundations Ag. Education
1.4 Credit hours: 1.0 Variable credit: No
1.5 Grade type: Standard letter
1.6 Prerequisites: None
1.7 Course description: History and foundation of agricultural education and career and technical education. Includes tools to promote, oversee, and evaluate agricultural education activities in grades 7-12.

2. Rationale:

2.1 Reason for developing the proposed course:

Past graduates have suggested that more AGED courses be included in the undergraduate program. In particular, they have requested coursework that would give them a greater understanding of the foundations of agricultural education and career and technical education (CTE). This course is intended to provide that understanding, along with the tools needed to promote, oversee and evaluate student activities in middle and secondary school agricultural education classrooms. (This course will be required of all AGED majors.)

2.2 Projected enrollment in the proposed course:

Projected enrollment is 5-10 students per year, based on current enrollment in the agricultural education program. (Students outside the department are not expected to enroll.)

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

This course will be the foundational course for all agricultural education students.

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

There is no other course in the University that includes these topics, which are specific to agricultural education teacher preparation.

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

Many land grant institutions offer a similar course in their agricultural education programs. The University of Kentucky(AED 110), Purdue University(YDAE 2400) , University of Illinois (AGED 100), Southern Illinois University (AGSE 110) all offer a foundation course.

3. Discussion of proposed course:

3.1 Schedule type: L
3.2 Learning Outcomes: Upon completion of this course, students will be able to:

- Understand the foundations of agricultural education
- Evaluate the historical significance of agricultural education in education.
- Discuss the role of CTE in agricultural education.
- Identify the leaders in agricultural and CTE development.
- Integrate STEM concepts into agricultural education programs.

- Demonstrate skill in advising youth development organizations.
- Understand and apply principles of team dynamics.

3.3 Content outline:

- Meeting the diverse needs of all learners.
- Integrating curriculum and design into an agricultural education program.
- Developing leadership, record-keeping and management skills among youth.
- Application and distribution of Federal funds.
- Implementing STEM activities in an agricultural education program.
- Identifying the leaders and their role in agricultural education and CTE.
- Identifying the historical changes of agricultural education and CTE.
- Integrating program planning decisions into an agricultural education program.
- Planning and developing SAE (Supervised Agricultural Experience) programs.
- Supervising and evaluating SAE programs.
- Devising a recruitment and retention strategy.
- Developing a marketing plan for student agricultural programs.
- Developing, managing and evaluating post-secondary programs.

3.4 Student expectations and requirements:

Students will deliver presentations to the class on assigned topics in youth development, policy and programs in agricultural education and CTE, and managing the agricultural education classroom. They will write an American Psychological Association (APA) paper about a foundational topic in agricultural education development, and assist in the preparation and organization of the regional leadership contests, as well as completing class assignments, quizzes and exams.

3.5 Tentative texts and course materials:

Ball, A., Dyer, J., Osborne, E. & Phipps, L. (2008). *Handbook on Agricultural Education in Public Schools (6th ed.)* Clifton Park, NY: Delmar/Cengage Learning

4. Resources:

4.1 Library resources:

4.2 Computer resources:

Students will use current internet sites as reference tools throughout the course. They will also utilize PowerPoint, Excel and Word management programs.

5. Budget implications:

5.1 Proposed method of staffing: Existing faculty

5.2 Special equipment needed: None

5.3 Expendable materials needed: None

5.4 Laboratory materials needed: None

6. Proposed term for implementation: Fall 2016

7. Dates of prior committee approvals:

Department of Agriculture	January 29, 2015
Ogden College Curriculum Committee	
Professional Education Council	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 2/5/16

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

Contact Person: Cris Scudder
Email: cris.scudder@wku.edu
Phone: 270 745-2969

1. Identification of proposed course:

1.1 Course prefix (subject area) and number: AGMC 178
1.2 Course title: Agriculture Safety
1.3 Abbreviated course title: Ag Safety
(maximum of 30 characters or spaces)
1.4 Credit hours: 2 Variable credit (yes or **no**): NO
1.5 Grade type: Standard letter grade
1.6 Prerequisites: None
1.7 Course description: Topics include the safe handling of hand tools, power tools, agricultural machinery, farm animals, pesticides, and fertilizers, with emphasis on hazard awareness, workplace regulations, and basic intervention strategies. Students will be trained in CPR (not certified) and other quick response first aid techniques.

2. Rationale:

2.1 Reason for developing the proposed course:
Agricultural production has historically been one of the most hazardous of all occupations with respect to the frequency of work-related injuries and fatalities. More and more students are entering the agriculture program without any farm background and are being exposed to agriculture related tasks with no understanding of the potential dangers around them and the dangers involved in performing tasks incorrectly. Also, students with an agriculture background often have become complacent to the point that they do not pay attention to the potential dangers. The course is designed to provide a modest introduction and overview of key agricultural safety and health issues for the first timer as well as the novice agriculturist. The focus of the course is on hazard awareness, the impact of injuries and accident on agricultural producers, and basic intervention strategies, including safety engineering, worker education, and compliance with safe work practices and workplace regulations.

2.2 Projected enrollment in the proposed course: 30 to 35, based upon previous offerings. This course has been taught on a trial bases.
2.3 Relationship of the proposed course to courses now offered by the department:
This course would expand upon safety and instructional modules included in AGMC 170/171, 172/173, 270/271, 272/273, 371/372, 373/374, 377/378, 390/391, and 392/393; ANSC 140/141, 232, 240/241, 330/331, 333/334, 338, 431/432, 442/443, 444/445, and 446/447; AGRO 310, 311, 350/351, 352,

409/410, 414, 420/421, 422, and 454; HORT 304/305, 313, 403/404, 412, and 414; AGED 250 and 470; and AGEC 260.

2.4 Relationship of the proposed course to courses offered in other departments: AMS 140 (Introduction to Occupational Safety) is a course that concentrates on construction and manufacturing safety. ENV 120 (Introduction to Occupational Safety and Health) and ENV 221 (Safety and Health Standards, Codes, and Regulations) are courses related to OSHA and factory safety issues. All of the mentioned courses complement some areas covered in Agriculture Safety, but due to the subject matter that is encountered in the agriculture industry, topics covered in this course are unique/different from topics covered in other courses.

2.5 Relationship of the proposed course to courses offered in other institutions: Many institutions offer similar courses. Comparable courses include: ASM 35000 (Safety in Agriculture), Purdue University; AEN 463 (Agricultural Safety and Health), Univ. of Kentucky; MET 2000 (Occupational Safety), Tenn. Tech. Univ.

3. Discussion of proposed course:

3.1 Schedule type: L

3.2 Learning Outcomes: Upon completion of this course student should be able to:

- Safely operate farm tractors.
- Work safely around farm equipment and machines.
- Perform CPR (not certified) and other emergency life saving practices.
- Work safely around farm animals.
- Safely handle and dispose of agricultural pesticides and chemicals.
- Read and use technical manuals to be able to safely operate farm equipment.
- Recognize potential hazards associate with farm equipment and animals.

3.2 Content outline:

- Basic introduction and farm injury data
- Designing safe agriculture equipment; human factors and ergonomics
- Personal protective equipment for agriculture work
- OSHA and its implications for agriculture
- Agricultural tractor and power take off safety
- Crop and feed storage and handling safety
- Agricultural chemical hazards
- Anhydrous ammonia safety
- Agricultural respiratory hazards
- Electrical safety
- Farm fire prevention and response
- Safe use of hand and power tools
- Livestock handler safety
- Horse handler safety

- Blood borne pathogens and zoonotic diseases
- First response to farm emergencies

3.3 Student expectations and requirements: Students will be evaluated on:
- Written exams and quizzes
- Attendance and participation
- Completion of in-class and out-of-class assignments

3.4 Tentative texts and course materials:
"Farm and Ranch Safety Management" published by Deere & Company. ISBN: 9780866912310. Other references may be assigned.

4. Resources:

4.1 Library resources: None required
4.2 Computer resources: None required

5. Budget implications:

5.1 Proposed method of staffing: Current faculty
5.2 Special equipment needed: None
5.3 Expendable materials needed: N/A
5.4 Laboratory materials needed: N/A

6. Proposed term for implementation: Fall 2016

7. Dates of prior committee approvals:

Department of Agriculture	February 25, 2016
OCSE Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 2/17/2016

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

Contact Person: Cris Scudder
Email: cris.scudder@wku.edu
Phone: 270 745-2969

1. Identification of course:

1.1 Current course prefix (subject area) and number: AGMC 377
1.2 Course title: Farm Machinery
1.3 Credit hours: 2

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 AGMC 170, 371 or permission of instructor
4.2 Proposed prerequisites/corequisites/special requirements:
Prerequisites AGMC 170 or permission of instructor
4.3 Rationale for revision of course prerequisites/corequisites/special requirements: Welding is the key learning objective of AGMC 371; however, welding is not performed by AGMC 377 students..
4.4 Effect on completion of major/minor sequence: None

5. Revise course catalog listing:

5.1 Current course catalog listing:
5.2 Proposed course catalog listing:
5.3 Rationale for revision of course catalog listing:

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. Proposed term for implementation: Fall 2016

8. Dates of prior committee approvals:

Department of Agriculture	February 25, 2016
Ogden College Curriculum Committee	_____
University Curriculum Committee	_____
University Senate	_____

Attachment: Course Inventory Form

Proposal Date: February 18, 2016

Ogden College of Science and Engineering
Department of Agriculture
Proposal to Revise A Program
(Action Item)

Contact Person: Todd Willian, todd.willian@wku.edu, (270) 745-5969

1. **Identification of program:**
   - 1.1 Current program reference number: 308
   - 1.2 Current program title: Minor in Agriculture
   - 1.3 Credit hours: 18

2. **Identification of the proposed program changes:**
   - Addition of several required courses, including AGRO 110 and ANSC 140
   - Addition of electives numbered 300 or above

3. **Detailed program description:** See attached table

   (Side-by-side table is required for most program changes showing revised program on the right and identifying deletions by strike-through and additions in boldface.)

4. **Rationale for the proposed program change:** These proposed changes add more subject specificity and more academic rigor to our minor.

5. **Proposed term for implementation and special provisions (if applicable):** Fall 2016

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

Department of Agriculture	December 9, 2015
OCSE Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Minor in Agriculture
Reference Number: 308

Current Courses	Proposed Courses
18 approved semester hours including AGRI 494 with at least half of the courses numbered 300 or above	**AGRO 110 (3)** **ANSC 140 (3)** AGRI 494 (3)
	Choose 3 hours from the following: **AGRO 320 (3)** **ANSC 345 (3)** **AGRO 350 (3)** **AGEC 360 (3)**
	Electives in Agriculture to complete the 18 hours. Must be numbered 300 or above.

Proposal Date: February 18, 2016

Ogden College of Science and Engineering
Department of Agriculture
Proposal to Revise A Program
(Action Item)

Contact Person: Todd Willian, todd.willian@wku.edu, (270) 745-5969

1. **Identification of program:**
   - 1.1 Current program reference number: 605
   - 1.2 Current program title: Major in Agriculture (with 2nd major or minor)
   - 1.3 Credit hours: 30

2. **Identification of the proposed program changes:**
   - Deletion of AGRI 108 and AGRI 398 (Gen.)
   - Addition of AGRI 291 or AGRI 491, AGRO 350, AGEC 360 and AGRI 397
   - Electives to complete 30 hours must be numbered 300 or above

3. **Detailed program description:** See attached table

   (Side-by-side table is required for most program changes showing revised program on the right and identifying deletions by strike-through and additions in boldface.)

4. **Rationale for the proposed program change:** These proposed changes add more subject specificity and more rigor to our current 605 program, particularly with respect to the requirement for an increase in 300-level coursework.

5. **Proposed term for implementation and special provisions (if applicable):** Fall 2016

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

Department of Agriculture	December 9, 2015
OCSE Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Major in Agriculture
Reference Number: 605

Current Courses	Proposed Courses
~~AGRI 108 (3)~~ AGRO 110 (3) ANSC 140 (3) AGMC 170/171 (2/1) ~~AGRI 398 (Gen.) (1)~~ AGRI 398 (Sp) (1) AGRI 494 (3)	AGRO 110 (3) ANSC 140 (3) AGMC 170/171 (2/1) **AGRI 291 or AGRI 491 (3)** **AGRO 350 (3)** **AGEC 360 (3)** **AGRI 397 (1)** AGRI 398 (1) AGRI 494 (3)
Electives to complete the 30 hours. Half of the semester hours in the major must be in courses numbered 300 or above.	Electives in Agriculture to complete 30 hours. **Must be numbered 300 or above.**

Proposal Date: 02/05/2016

Ogden College of Science and Engineering
Department of Architectural and Manufacturing Sciences
Proposal to Revise A Program
(Action Item)

Contact Person: Dr. Muhammad Jahan, Muhammad.jahan@wku.edu, 270-745-2176

1. Identification of program:

1.1 Current program reference number: 506
1.2 Current program title: Advanced Manufacturing
1.3 Credit hours: 120 hours

2. Identification of the proposed program changes:

This is a proposal for the title change of the current program.

Current title: Advanced Manufacturing

Proposed title: Manufacturing Engineering Technology

3. Detailed program description:

There is no change in the credit hours and courses. The proposal is for title change only.

4. Rationale for the proposed program change:

The Classification of Instructional Program (CIP) uses the term "Manufacturing Engineering Technology (CIP Code 15.0613)" to describe the programs that have similar objectives and curriculum as our Advanced Manufacturing program. Therefore, changing the name of the program to "Manufacturing Engineering Technology" will be more appropriate.

Manufacturing Engineering Technology/Technician. (CIP Code 15.0613) A program that prepares individuals to apply basic engineering principles and technical skills to the identification and resolution of production problems in the manufacture of products. Includes instruction in machine operations, production line operations, engineering analysis, systems analysis, instrumentation, physical controls, automation, computer-aided manufacturing (CAM), manufacturing planning, quality control, and informational infrastructure.

Our current program is accredited by the Association of Technology, Management and Applied Engineering (ATMAE), and the majority of similar ATMAE-accredited programs bear the name "Manufacturing Engineering Technology." Hence, we believe that our title, Advanced Manufacturing, should be changed to Manufacturing Engineering Technology to align with similar accredited programs.

Many of WKU's benchmark institutions have already changed the names of similar ATMAE-accredited programs to Manufacturing Engineering Technology. For example:

University of Central Missouri
Northern Illinois University
Tennessee Technological University
Texas State University-San Marcos
Western Illinois University
Eastern Michigan University

Other comprehensive universities in Kentucky have also made the change in title. For example:

Morehead State University: BS in Engineering Technology – with concentration on Design and Manufacturing Engineering Technology (ATMAE accredited)

Eastern Kentucky University: BS in Applied Engineering Management (ATMAE accredited)

Northern Kentucky University: BS in Mechanical and Manufacturing Engineering Technology (ABET accredited)

5. Proposed term for implementation and special provisions (if applicable):

Fall 2016

6. Dates of prior committee approvals:

AMS Department/Division: February 5, 2016

OCSE Curriculum Committee _____

Undergraduate Curriculum Committee _____

University Senate _____

Proposal Date: 15 October 2015

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

Contact Person: Noah Ashley, noah.ashley@wku.edu, 745-4268

1. **Identification of proposed course:**
   - 1.1 Course prefix (subject area) and number: BIOL 356
   - 1.2 Course title: Ornithology Lab
   - 1.3 Abbreviated course title: Ornithology Lab (maximum of 30 characters or spaces)
   - 1.4 Credit hours: 2 Variable credit (**no**)
   - 1.5 Grade type: Standard Letter Grade
   - 1.6 Prerequisite/concurrent prerequisite: BIOL 326
   - 1.7 Course description: The taxonomy, morphology, and natural history of birds of Kentucky. Off-campus travel will be required. ***Course Fee***

2. **Rationale:**
   - 2.1 Reason for developing the proposed course: Most upper-level undergraduate Ornithology courses involve an integrated lab/field component. Presently, the three credit hour BIOL326 lecture course taught at WKU does not involve a field/lab component. Similar upper-level courses taught by WKU biology faculty (e.g., Ichthyology, Herpetology, Mammalogy, Insect Biodiversity, Aquatic Insect Diversity) involve a scheduled time for laboratory and field studies. This lab experience is important for developing a student's ability to apply and understand avian biology outside the classroom.
   - 2.2 Relationship of the proposed course to courses now offered by the department: The proposed laboratory course will complement the current lecture course in Ornithology (BIOL 326), as well as several other organismal biology courses regularly taught by the department
   - 2.3 Relationship of the proposed course to courses offered in other departments: None.
   - 2.4 Relationship of the proposed course to courses offered in other institutions: Three WKU benchmark institutions (Appalachian State University, Ball State University, and East Carolina University) that currently offer Ornithology include activities that involve lab and/or field experiences.

3. **Discussion of proposed course:**
   - 3.1 Schedule type: B
   - 3.2 Learning Outcomes:
     - 3.2.1 Understand how birds are classified and identify the common birds of south-central KY
     - 3.2.2 Understand avian anatomy and morphology

3.2.3 Collect and analyze ornithological data to test a specific scientific hypothesis and write a scientific paper

3.3 Content outline:

3.3.1 External morphology, feathers, skeleton, internal anatomy (using pigeon dissection)

3.3.2 Identification techniques of different bird orders (including vocalizations), using binoculars, field techniques

3.3.3 Field trips: Barren River Lake, Warren County areas, Mammoth Cave

3.3.4 Independent project: collection & analysis of field (or lab) data, writing a scientific paper

3.3.5 Assessment: 2 Lab Exams, 1 Field Quiz, 1 Vocalization Quiz, Grading of scientific paper

3.4 Student expectations and requirements: Students will be expected to participate in all lab sessions and field trips. Students are required to maintain a field notebook to record observations in the field, and to complete an independent project with a scientific paper as the finished product.

3.5 Tentative texts and course materials:

3.5.1 Required Field Guide: National Geographic Field Guide for Birds of North America, 6 ed. By Dunn and Alderfer (or similar field guide- Sibley or Peterson).

3.5.2 Required Lab Guide: Manual of Ornithology: Avian Structure of Function. By Proctor & Lynch

4. Resources:

4.1 Library resources: Adequate

4.2 Computer resources: Adequate

5. Budget implications:

5.1 Proposed method of staffing: This course will be taught by an existing Biology faculty (Dr. Noah Ashley) who was hired, in part, to regularly teach undergraduate courses in Ornithology.

5.2 Special equipment needed: None

5.3 Expendable materials needed: None

5.4 Laboratory materials needed: Dissection equipment and light microscopes (both available in Biology Department); students will be responsible for buying dissection tools.

6. Proposed term for implementation: Fall 2016

7. Dates of prior committee approvals:

Department of Biology	20 February 2016
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 11/18/2015

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

Contact Person: Bruce Schulte, bruce.schulte@wku.edu, 745-4856

1. Identification of proposed course:

1.1 Course prefix (subject area) and number: BIOL 380
1.2 Course title: Challenges of a Changing Biosphere
1.3 Abbreviated course title: Challenges of a Changing Biosphere
1.4 Credit hours: 3
1.5 Grade type: Standard letter grade
1.6 Prerequisites: 21 hours of Foundations and Explorations courses, or junior status.
1.7 Course description: A focus on environmental issues from a biological perspective with emphasis on Habitat loss, Invasive species, Population growth, Pollution, and Overharvesting (HIPPO) in light of climate change and extinction.

2. Rationale:

2.1 Reason for developing the proposed course: This course will serve as a Colonnade Connections course in the Local to Global sub-area that addresses local to global problems and impacts, providing students from diverse background to work together to formulate viable solution sets.
2.2 Projected enrollment in the proposed course: 20 per term
2.3 Relationship of the proposed course to courses now offered by the department: BIOL 280 Introduction to Environmental Science provides a broad overview of environmental issues.
2.4 Relationship of the proposed course to courses offered in other departments: This course was equivalent to AGRI 280, ENV 280, and PH 280. However, several of these courses are not part of the Colonnade and equivalency no longer exists. GEOG 380 Global Sustainability deals with some of the same general topics as the proposed course (e.g., human populations, global warming) but the BIOL 380 course has a focus on biologically based problems and the role of biology in their solutions.
2.5 Relationship of the proposed course to courses offered in other institutions: Most WKU Benchmark and Kentucky institutions offer some form of environmental science class. Some are at an introductory level and cover a broad expanse of topics while others are upper level, investigatory type courses:
Appalachian State University: BIO 1103 Global Climate Change and Earth's Life; BIO 3312 Environmental Studies (variable topics)
Asbury University: BIO 217 Environmental Science
Ball State University: BIO 220 Ecological Issues in the 21st century; BIO 254 Biology in the Social Context

Bowling Green State University: BIOL 4100 Conservation Biology in Practice
Central Michigan University: BIO 338 Human Ecology; BIO 361, 362, 363, 364, 366 – a series of conservation courses; BIO 365 Environmental Contaminants
East Carolina University: BIOL 4320 Ecological Responses to Global Climate Change
EKU: BIOL 500 Environmental Issues
East Tennessee University: None
Florida Atlantic University: EVS 4021 Critical Thinking in Environmental Science
Illinois State University: BSC 202 Human Ecology
Indiana State University: None
James Madison University: BIO 354. Global Climate Change and Life: Ecological and Biological Impacts of Climate Variability
Kentucky State University: BIO 500 Environmental Issues; WLD 317 Conservation of Wildlife Resources
MTSU: BIOL 3070 - Biology Seminar on Environmental Problems
Morehead State University: BIOL 155 Introduction to Environmental Science; BIOL 356 Environmental Biology
Murray State University: BIO 103 Saving Planet Earth
Northern Illinois University: BIOS 106 Environmental Biology
Northern Kentucky University: BIOL 123 Human Ecology
Ohio University: BIOS 2200 Conservation and Biodiversity (non-majors)
Towson University: BIOL 105 Environmental Biology; BIOL 306 Human Ecology and Sustainability: BIOL 310 Environmental Conservation
University of Kentucky: BIO 102 Human Ecology
University of Louisville: BIOL 263 Environmental Biology
UNC-Charlotte: None
UNC-Greensboro: BIO 431 The Biosphere
University of South Alabama: BLY 205 Introduction to Environmental Science
University of Southern Mississippi: BSC 103 Biology and Society

3. Discussion of proposed course:

3.1 Schedule type: L

3.2 Learning outcomes

- explain the components of Habitat loss, Invasive species, Population growth, Pollution, and Overharvesting (HIPPO) in terms of local to global causes and impacts
- recognize the roles of research, education, activism, and policy in understanding the problems and deriving environmental solutions
- demonstrate ability to use biological information to connect local issues to global problems and potential solutions
- discuss and write critically about the biological basis of problems and solutions to HIPPO

3.3 Content outline

First half of course: Science & the Environment; HIPPO

Second half of course: Environmental Activism & Management - the role of biological data; Ecological Economics & Conservation – ecosystem functions & services; Environmental Policy & Sustainability – the role of the biological sciences

3.4 Student expectations and requirements

- Discussions (20%)
- Examinations (40%)
- Digital Project (20%)
- Written Components of Project (20%)

3.5 Tentative texts and course materials: No mandatory text. Primary and secondary literature papers will be read; some video material will be used.

4. Resources:

4.1 Library resources: Adequate. Access to primary scientific literature and suggested readings.

4.2 Computer resources: Adequate resources for student access to the internet through a personal computer or University owned computers are readily available.

5. Budget implications:

5.1 Proposed method of staffing: This course will be available for any member in the Department of Biology

5.2 Special equipment needed: All necessary equipment is currently available in the classrooms.

5.3 Expendable materials needed: None

5.4 Laboratory materials needed: None

6. Proposed term for implementation: Fall 2016

7. Dates of prior committee approvals

Department of Biology	20 February 2016
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Attachment: Bibliography, Library Resources Form, Course Inventory Form

Proposal Date: 04/01/2015

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

Contact Person: Philip Lienesch, Philip.Lienesch@wku.edu, 745-6006

1. Identification of proposed course:

1.1 Course prefix (subject area) and number: BIOL 397
1.2 Course title: Scientific Process
1.3 Abbreviated course title: Scientific Process
1.4 Credit hours: 2–4
1.5 Grade type: Standard letter grade
1.6 Prerequisites: BIOL 120/121 and BIOL 122/123 with grades of "C" or higher or permission of instructor
1.7 Course description: An in-depth experience with scientific research from concept through dissemination.

2. Rationale:

2.1 Reason for developing the proposed course: Familiarity with, and the ability to perform, scientific research is a core element of STEM education at the university level. As such, we are adding a scientific process requirement to our Biology majors to assure that each graduate will have had a substantial experience doing science. The proposed course will serve as an additional elective science process course, and most importantly, would represent a novel approach to integrating research and science process in the Biology curriculum.
2.2 Projected enrollment in the proposed course: 12 to 20 students per section. We do not anticipate non-Biology majors taking the course.
2.3 Relationship of the proposed course to courses now offered by the department: This course will cover the same topics that are covered in courses designated as scientific process courses, namely, how to search the scientific literature, design a scientific study, collect and analyze data, synthesize information, write a scientific paper, and orally present scientific data. Roughly 1/3 of our graduates currently take a course designated as a scientific process course. BIOL 397 will provide an additional scientific process course for students.
2.4 Relationship of the proposed course to courses offered in other departments: Other Ogden College departments offer courses that focus on scientific research, typically on an independent basis with small numbers of students (e.g., BIOL 399, CHEM 399, PHYS 399). BIOL 397 will also be unique in that instruction will be delivered in a classroom setting with peer-to-peer collaboration and evaluation rather than a one-on-one, student/mentor setting in a field or lab environment.

2.5 Relationship of the proposed course to courses offered in other institutions: Courses titled Capstone Research, Directed Research, Directed Studies, Independent Research, Independent Studies, Independent Study, Research, Senior Research, and Undergraduate Research are common in Biology and Biological Sciences departments across the WKU Benchmark Institutions. Course descriptions, however, indicate a pattern typical of independent student research performed on an individual basis. Southern Mississippi University is the only Benchmark Institution that offers a similar course (Experimental Design and Data Analysis in Biology), although this is more typical of a statistics course routinely offered through a Biology department.

3. Discussion of proposed course:

3.1 Schedule type: A

3.2 Learning outcomes:

1. Explain how the scientific process works and the characteristics of a well-designed scientific study.
2. Use the scientific literature to gather information. Differentiate the types of literature (e.g., primary versus secondary sources, government documents) and how to access different resources.
3. Formulate testable hypotheses and design appropriate experiments to test them.
4. Collect and organize data in a notebook and analyze data using appropriate statistical tests.
5. Synthesize information and integrate the results of an experiment with the scientific literature.
6. Disseminate knowledge in the form of writing a scientific paper using the format from an appropriate journal.
7. Disseminate knowledge through oral and poster presentations during an in-class model of a scientific meeting.

3.3 Content outline:

1. Scientific thinking and the scientific process
2. Scientific literature and database searching strategies
3. Formulation of scientific hypotheses: Initiate independent projects
4. How science is funded: funding agencies and proposal preparation
5. Experimental design
6. Collecting scientific data and data management
7. Basic Statistics, appropriate statistical tests for categorical and continuous variables
8. Preparation of graphs
9. Data analysis
10. Structure of scientific papers, oral presentations and poster presentations
11. The peer review process: scientific organizations and commercial publishers

3.4 Student expectations and requirements: Weekly assignments (e.g., searching the literature on a topic, reviewing a published paper), the maintenance of a lab notebook, and the scientific paper resulting from the experiment performed.

3.5 Tentative texts and course materials: Required text book: no text required

4. Resources:

4.1 Library resources: Adequate. Access to primary scientific literature and suggested readings.

4.2 Computer resources: Adequate resources for student access to the Internet through a personal computer or University owned computers are readily available.

5. Budget implications:

5.1 Proposed method of staffing: Current full-time faculty

5.2 Special equipment needed: none

5.3 Expendable materials needed: None

5.4 Laboratory materials needed: None

6. Proposed term for implementation: Fall 2016

7. Dates of prior committee approvals

Department of Biology	20 February 2016
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Attachment: Bibliography, Library Resources Form, Course Inventory Form

Proposal Date: 10/19/2015

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

Contact Person: Bruce Schulte, bruce.schulte@wku.edu, 745-4856

1. Identification of proposed course:

1.1 Course prefix (subject area) and number: BIOL 489
1.2 Course title: Professional Aspects of Biology
1.3 Abbreviated course title: Professional Aspects of Biology
1.4 Credit hours: 1
1.5 Grade type: Standard letter grade
1.6 Prerequisites: BIOL 315 or BIOL 316 or BIOL 319 or BIOL 327 and Senior Status
1.7 Course description: Current topics and the role of science in society, participation in seminars, evaluation of biological skills and knowledge, preparation for careers in biology, and construction of an alumnus action plan.

2. Rationale:

2.1 Reason for developing the proposed course: This course will provide the Department of Biology with several means of assessment for majors in our program. It also will help prepare students for pursuing their career goals.
2.2 Projected enrollment in the proposed course: 50 per term
2.3 Relationship of the proposed course to courses now offered by the department: We have a selected topics course (BIOL 475) that also discusses biological topics via the primary literature but that course does so in a more in-depth manner than the currently proposed course, and it does not cover any of the other proposed topics in BIOL 489. Previously, the now-defunct BIOL 398 (Senior Seminar) covered some of the same topics but without the assessment components.
2.4 Relationship of the proposed course to courses offered in other departments: The proposed course shares components of GEOG 499 Professional Preparation in Geography and GEOL 499 Professional Preparation in Geology (e.g., ethics, career preparation, assessment, and selected seminar topics).
2.5 Relationship of the proposed course to courses offered in other institutions: One of the WKU Benchmark Institutions, Northern Illinois University, offers BIOS 494 (Biology Senior Assessment) as similar form of a senior assessment course to gauge progress in writing (general and technical), broad-based scientific knowledge, and critical and analytical thinking skills.

3. Discussion of proposed course:

3.1 Schedule type: P
3.2 Learning outcomes

- Assess the quality of a speaker and relate the content to their own learning through questions.
- Show proficiency for all major topics covered in introductory biology and ability to evaluate and interpret biological data.
- Describe, discuss and compare the ethics, roles and responsibilities of scientists to other individuals in a sustainable, global society.
- Tailor a curriculum vitae or résumé and cover letter to career aspirations
- Reflect on their learning within and outside the classroom at WKU
- Appraise their experience and program(s) at WKU and construct a plan of action as an alumnus

3.3 Content outline

- Week 1: Introduction, safety seminar, and safety quiz (mandatory)
- Week 2: Ethics discussion, take CITI seminars, and readings for Biology seminar
- Week 3: Seminar and discussion
- Week 4: Content assessment exam due; science process data analysis/interpretation workshop and discussion; readings for Biology seminar
- Week 5: Seminar and discussion
- Week 6: Career services – planning for the future; readings for Biology seminar
- Week 7: Seminar and discussion
- Week 8: CV/ résumé and cover letter submittal and discussion; readings for Biology seminar
- Week 9: Seminar and discussion
- Week 10: CV/ résumé and cover letter submittal revision due and discussion; science process data analysis/interpretation due; readings for Biology seminar
- Week 11: Seminar and discussion
- Week 12: Alumni Center presentation; discussion on alumnus plan; readings for Biology seminar
- Week 13: Seminar and discussion
- Week 14: Alumnus plan due and discussion; senior survey due
- Week 15: Final opportunity to retake assessment exams and submit any late materials; final alumnus plan due

3.4 Student expectations and requirements

- Attendance at or watch recording of safety seminar
- Score a minimum of 80% on biology safety quiz
- Attendance at four seminars
- Evaluative synopsis of three seminars
- Score a minimum of 70% on all parts of the biology senior assessment exam
- Score a minimum of 70% on assessment of data evaluation and interpretation

- Attend at least two WKU functions that deal with ethics, social responsibility, internationalization, and/or the environment and write an evaluatory essay on one – students also will take an online set of ethics modules (e.g. CITI) for scientists and answer questions on this material, achieving a minimum of 70% proficiency
- CV or résumé and cover letter preparation
- Senior survey
- Alumnus action plan

3.5 Tentative texts and course materials: No mandatory text. Scientific papers will be read. Books and online resources for scientific writing and career preparation will be suggested.

4. Resources:

4.1 Library resources: Adequate. Access to primary scientific literature and suggested readings.

4.2 Computer resources: Adequate resources for student access to the internet through a personal computer or University owned computers are readily available.

5. Budget implications:

5.1 Proposed method of staffing: This course will be rotated among tenured or tenure-track faculty in the Department of Biology

5.2 Special equipment needed: All necessary equipment is currently available in the classrooms.

5.3 Expendable materials needed: None

5.4 Laboratory materials needed: None

6. Proposed term for implementation: Fall 2016

7. Dates of prior committee approvals

Department of Biology	20 February 2016
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Attachment: Bibliography, Library Resources Form, Course Inventory Form

Proposal Date: 15 November 2015

Ogden College of Science and Engineering
Department of Biology
Proposal to Revise A Program
(Action Item)

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

1. Identification of program:

1.1 Current program reference number: 525
1.2 Current program title: Major in Biology
1.3 Credit hours: 48

2. Identification of the proposed program changes:

- Addition of BIOL 489 (Practical Experiences in Biology) as a required course
- Change to BIOL 322 (Introduction to Cellular and Molecular Biology Lab) serving as the only lab for BIOL 319 (Introduction to Cellular and Molecular Biology)
- Change to BIOL 337 (Genetics Lab) serving as the only lab for BIOL 327 (Genetics)
- Addition of BIOL 212 (Genome Discovery and Exploration) and BIOL 356 (Ornithology Lab) as laboratory experience courses
- New requirement of one science process course
- Relocation of BIOL 369 and BIOL 399 combination, plus BIOL 485 limit language, under elective coursework
- Replacement of BIOL 283 for BIOL 382 (both Introductory Biostatistics), simply reflecting a change in course number that was enacted two years ago
- Noting the subject change of GEOG 316, GEOG 317, and GEOG 417 to GISC 316, GISC 317, and GISC 417

3. Detailed program description:

Current program	**Proposed program**
Required coursework (8 hrs) BIOL 120/121: Biological Concepts: Cells, Metabolism, and Genetics (4) BIOL 122/123: Biological Concepts: Evolution, Diversity & Ecology (4)	Required coursework (9 hrs) BIOL 120/121: Biological Concepts: Cells, Metabolism, and Genetics (4) BIOL 122/123: Biological Concepts: Evolution, Diversity & Ecology (4) **BIOL 489: Practical Experiences in Biology (1)**
Restricted elective coursework (11 hrs) BIOL 222/223: Plant Biology and Diversity (4) or BIOL 224/225: Animal Biology and Diversity (4) or BIOL 226/227: Microbial Biology and Diversity (4)	Restricted elective coursework (11 hrs) BIOL 222/223: Plant Biology and Diversity (4) or BIOL 224/225: Animal Biology and Diversity (4) or BIOL 226/227: Microbial Biology and Diversity (4)
~~BIOL 319: Introduction to Cellular and Molecular Biology (3)~~	**BIOL 319/322: Introduction to Cellular and Molecular Biology (4)**

~~or~~ ~~BIOL 327: Genetics (3)~~ ~~BIOL 322: Introduction to Cellular and Molecular Biology Lab (1)~~ ~~or~~ ~~BIOL 337: Genetics Lab (1)~~ BIOL 315: Ecology (3) or BIOL 316: Evolution (3) Laboratory experience courses (choose five) BIOL 312, BIOL 321, BIOL 322, BIOL 324, BIOL 325, BIOL 326, BIOL 328, BIOL 331, BIOL 337, BIOL 348, BIOL 350, BIOL 400, BIOL 404, BIOL 405, BIOL 412, BIOL 447, BIOL 450, BIOL 456, BIOL 457, BIOL 458, BIOL 460, BIOL 470, BIOL 472, BIOL 485, BIOL 496, BIOL 497 Elective coursework • In consultation with their advisor, students select majors-level coursework to obtain a minimum 48 credits total, provided that at least 24 hours total are upper division courses. Supporting coursework • MATH 116 and 117 or MATH 118 or higher • PHYS 231/232 or PHYS 255/256 • CHEM 120/121, and • Two courses from the following list: AGRO 350 and AGRO 452 or AGRO 454 or AGRO 455/456 or AGRO 457/458, ~~BIOL 283~~, CHEM 222/223, CHEM 314 or CHEM 340/341, CHEM 330, CIS 243, CIS 226 or CS 226 or CS 146, ~~GEOG~~ 316, ~~GEOG~~ 317, ~~GEOG 328~~, ~~GEOG~~ 417, MATH 136, MATH 137, MATH 142, MATH 305, MATH 307, PHYS 332/233 or PHYS 265/266, SOCL 302. • ~~Students may count up to 6 credit hours of a combination of BIOL 369 and/or 399, and up to 4 credit hours of BIOL 485 toward this major.~~	**or** **BIOL 327/337: Genetics (4)** BIOL 315: Ecology (3) or BIOL 316: Evolution (3) Laboratory experience courses (choose five) **BIOL 212**, BIOL 312, BIOL 321, BIOL 322, BIOL 324, BIOL 325, BIOL 326, BIOL 328, BIOL 331, BIOL 337, BIOL 348, BIOL 350, **BIOL 356**, BIOL 400, BIOL 404, BIOL 405, BIOL 412, BIOL 447, BIOL 450, BIOL 456, BIOL 457, BIOL 458, BIOL 460, BIOL 470, BIOL 472, BIOL 485, BIOL 496, BIOL 497 **Science process courses (choose one)** **BIOL 212, BIOL 312, BIOL 331, BIOL 350, BIOL 397, BIOL 404, BIOL 407, BIOL 412, BIOL 456, BIOL 457, BIOL 470, BIOL 472, BIOL 495, BIOL 496, BIOL 497, HON 404** Elective coursework • In consultation with their advisor, students select majors-level coursework to obtain a minimum 48 credits total, provided that at least 24 hours total are upper division courses. • Students may count up to 6 credit hours of a combination of BIOL 369 and/or BIOL 399, and up to 4 credits of BIOL 485 toward this major. Supporting coursework • MATH 116 and 117 or MATH 118 or higher • PHYS 231/232 or PHYS 255/256 • CHEM 120/121, and • Two courses from the following list: AGRO 350 and AGRO 452 or AGRO 454 or AGRO 455/456 or AGRO 457/458, **BIOL 382**, CHEM 222/223, CHEM 314 or CHEM 340/341, CHEM 330, CIS 243, CIS 226 or CS 226 or CS 146, GEOG 328, **GISC** 316, **GISC** 317, **GISC** 417, MATH 136, MATH 137, MATH 142, MATH 305, MATH 307, PHYS 332/233 or PHYS 265/266, SOCL 302.

4. Rationale for the proposed program change:

- BIOL 489 (Practical Experiences in Biology) is added as a requirement to the Biology curriculum. This course is designed to integrate senior undergraduate students in seminars,

evaluate their ability to interpret biological and science process concepts, assist in their preparation for graduate school, professional school, and/or careers in Biology, and assist with the construction of an alumnus action plan.

- The addition of BIOL 212 (Genome Discovery and Exploration) as a laboratory experience course is appropriate since this course focuses on implementation and completion of a research project.
- BIOL 356 (Ornithology Lab) provides students with another laboratory course option.
- Change to BIOL 322 (Introduction to Cellular and Molecular Biology Lab) serving as the only lab for BIOL 319 (Introduction to Cellular and Molecular Biology). The material covered in BIOL 322 builds best upon concepts taught in BIOL 319.
- Change to BIOL 337 (Genetics Lab) serving as the only corequisite lab for BIOL 327 (Genetics). The material covered in BIOL 337 builds best upon concepts taught in BIOL 327.
- A minimum of one science process experience course is proposed as required, emphasizing proficiency with scientific literature, proper design of a scientific research project, interpretation of data, concise writing of a scientific paper in an appropriate journal format, and dissemination of knowledge through either an oral or poster presentation.
- The BIOL 369 and BIOL 399 limit combination language, plus the BIOL 485 limit language, is relocated under elective coursework since these courses count towards the major and are not supporting courses.
- Replacement of BIOL 283 for BIOL 382 (both Introductory Biostatistics), simply reflecting a change in course number that was enacted two years ago.
- Starting with the spring 2016 semester, the Department of Geology and Geography renamed GEOG 316, GEOG 317, and GEOG 417 as GISC 316, GISC 317, and GISC 417.

5. **Proposed term for implementation:** Fall 2016

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

Department of Biology	20 February 2016
Ogden College Curriculum Committee	
Professional Education Council	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 15 November 2015

Ogden College of Science and Engineering
Department of Biology
Proposal to Revise A Program
(Action Item)

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

1. Identification of program:

1.1 Current program reference number: 617
1.2 Current program title: Major in Biology
1.3 Credit hours: 36

2. Identification of the proposed program changes:

- Addition of BIOL 489 (Practical Experiences in Biology) as a required course
- Change to BIOL 322 (Introduction to Cellular and Molecular Biology Lab) serving as the only lab for BIOL 319 (Introduction to Cellular and Molecular Biology)
- Change to BIOL 337 (Genetics Lab) serving as the only lab for BIOL 327 (Genetics)
- Addition of BIOL 212 (Genome Discovery and Exploration) and BIOL 356 (Ornithology Lab) as laboratory experience courses
- New requirement of one science process course
- Relocation of BIOL 369 and BIOL 399 combination, plus BIOL 485 limit language, under elective coursework
- Replacement of BIOL 283 for BIOL 382 (both Introductory Biostatistics), simply reflecting a change in course number that was enacted two years ago
- Noting the subject change of GEOG 316, GEOG 317, and GEOG 417 to GISC 316, GISC 317, and GISC 417

3. Detailed program description:

Current program	**Proposed program**
Required coursework (~~8~~ hrs) BIOL 120/121: Biological Concepts: Cells, Metabolism, and Genetics (4) BIOL 122/123: Biological Concepts: Evolution, Diversity & Ecology (4)	Required coursework (**9** hrs) BIOL 120/121: Biological Concepts: Cells, Metabolism, and Genetics (4) BIOL 122/123: Biological Concepts: Evolution, Diversity & Ecology (4) **BIOL 489: Practical Experiences in Biology (1)**
Restricted elective coursework (11 hrs) BIOL 222/223: Plant Biology and Diversity (4) or BIOL 224/225: Animal Biology and Diversity (4) or BIOL 226/227: Microbial Biology and Diversity (4)	Restricted elective coursework (11 hrs) BIOL 222/223: Plant Biology and Diversity (4) or BIOL 224/225: Animal Biology and Diversity (4) or BIOL 226/227: Microbial Biology and Diversity (4)
~~BIOL 319: Introduction to Cellular and Molecular Biology (3)~~	**BIOL 319/322: Introduction to Cellular and Molecular Biology (4)**

~~or~~ ~~BIOL 327: Genetics (3)~~ ~~BIOL 322: Introduction to Cellular and Molecular Biology Lab (1)~~ ~~or~~ ~~BIOL 337: Genetics Lab (1)~~ BIOL 315: Ecology (3) or BIOL 316: Evolution (3)	**or** **BIOL 327/337: Genetics (4)** BIOL 315: Ecology (3) or BIOL 316: Evolution (3)
Laboratory experience courses (choose five) BIOL 312, BIOL 321, BIOL 322, BIOL 324, BIOL 325, BIOL 326, BIOL 328, BIOL 331, BIOL 337, BIOL 348, BIOL 350, BIOL 400, BIOL 404, BIOL 405, BIOL 412, BIOL 447, BIOL 450, BIOL 456, BIOL 457, BIOL 458, BIOL 460, BIOL 470, BIOL 472, BIOL 485, BIOL 496, BIOL 497	Laboratory experience courses (choose five) **BIOL 212**, BIOL 312, BIOL 321, BIOL 322, BIOL 324, BIOL 325, BIOL 326, BIOL 328, BIOL 331, BIOL 337, BIOL 348, BIOL 350, **BIOL 356**, BIOL 400, BIOL 404, BIOL 405, BIOL 412, BIOL 447, BIOL 450, BIOL 456, BIOL 457, BIOL 458, BIOL 460, BIOL 470, BIOL 472, BIOL 485, BIOL 496, BIOL 497 **Science process courses (choose one)** **BIOL 212, BIOL 312, BIOL 331, BIOL 350, BIOL 397, BIOL 404, BIOL 407, BIOL 412, BIOL 456, BIOL 457, BIOL 470, BIOL 472, BIOL 495, BIOL 496, BIOL 497, HON 404**
Elective coursework • In consultation with their advisor, students select majors-level coursework to obtain a minimum 48 credits total, provided that at least 24 hours total are upper division courses.	Elective coursework • In consultation with their advisor, students select majors-level coursework to obtain a minimum 36 credits total, provided that at least 18 hours total are upper division courses. • Students may count up to 3 credit hours of a combination of BIOL 369 and/or BIOL 399, and up to 4 credits of BIOL 485 toward this major.
Supporting coursework • MATH 116 and 117 or MATH 118 or higher • PHYS 231/232 or PHYS 255/256 • CHEM 120/121, and • Two courses from the following list: AGRO 350 and AGRO 452 or AGRO 454 or AGRO 455/456 or AGRO 457/458, ~~BIOL 283~~, CHEM 222/223, CHEM 314 or CHEM 340/341, CHEM 330, CIS 243, CIS 226 or CS 226 or CS 146, ~~GEOG~~ 316, ~~GEOG~~ 317, ~~GEOG 328~~, ~~GEOG~~ 417, MATH 136, MATH 137, MATH 142, MATH 305, MATH 307, PHYS 332/233 or PHYS 265/266, SOCL 302. • ~~Students may count up to 6 credit hours of a combination of BIOL 369 and/or 399, and up to 4 credit hours of BIOL 485 toward this major.~~	Supporting coursework • MATH 116 and 117 or MATH 118 or higher • PHYS 231/232 or PHYS 255/256 • CHEM 120/121, and • Two courses from the following list: AGRO 350 and AGRO 452 or AGRO 454 or AGRO 455/456 or AGRO 457/458, **BIOL 382**, CHEM 222/223, CHEM 314 or CHEM 340/341, CHEM 330, CIS 243, CIS 226 or CS 226 or CS 146, GEOG 328, **GISC** 316, **GISC** 317, **GISC** 417, MATH 136, MATH 137, MATH 142, MATH 305, MATH 307, PHYS 332/233 or PHYS 265/266, SOCL 302.

4. Rationale for the proposed program change:

- BIOL 489 (Practical Experiences in Biology) is added as a requirement to the Biology curriculum. This course is designed to integrate senior undergraduate students in seminars,

evaluate their ability to interpret biological and science process concepts, assist in their preparation for graduate school, professional school, and/or careers in Biology, and assist with the construction of an alumnus action plan.

- The addition of BIOL 212 (Genome Discovery and Exploration) as a laboratory experience course is appropriate since this course focuses on implementation and completion of a research project.
- BIOL 356 (Ornithology Lab) provides students with another laboratory course option.
- Change to BIOL 322 (Introduction to Cellular and Molecular Biology Lab) serving as the only lab for BIOL 319 (Introduction to Cellular and Molecular Biology). The material covered in BIOL 322 builds best upon concepts taught in BIOL 319.
- Change to BIOL 337 (Genetics Lab) serving as the only corequisite lab for BIOL 327 (Genetics). The material covered in BIOL 337 builds best upon concepts taught in BIOL 327.
- A minimum of one science process experience course is proposed as required, emphasizing proficiency with scientific literature, proper design of a scientific research project, interpretation of data, concise writing of a scientific paper in an appropriate journal format, and dissemination of knowledge through either an oral or poster presentation.
- The BIOL 369 and BIOL 399 limit combination language, plus the BIOL 485 limit language, is relocated under elective coursework since these courses count towards the major and are not supporting courses.
- Replacement of BIOL 283 for BIOL 382 (both Introductory Biostatistics), simply reflecting a change in course number that was enacted two years ago.
- Starting with the spring 2016 semester, the Department of Geology and Geography renamed GEOG 316, GEOG 317, and GEOG 417 as GISC 316, GISC 317, and GISC 417.

5. **Proposed term for implementation:** Fall 2016

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

Department of Biology	20 February 2016
Ogden College Curriculum Committee	
Professional Education Council	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: February 1, 2016

Ogden College of Science and Engineering
Department of Biology and Department of Chemistry
Proposal to Revise A Program
(Action Item)

Contact Person: Sigrid Jacobshagen, sigrid.jacobshagen@wku.edu, 270-745-5994

1. Identification of program:

1.1 Current program reference number: 519
1.2 Current program title: Major in Biochemistry
1.3 Credit hours: 60

2. Identification of the proposed program changes:

- Add BIOL 337 (Genetics Laboratory) as an elective course.
- Add BIOL 212 (Genome Discovery and Exploration) as an elective course.
- Add BIOL 212 (Genome Discovery and Exploration) as an elective course.
- Add BIOL 312 (Bioinformatics) as an elective course.
- Add BIOL 335 (Neurobiology) as an elective course.
- Add BIOL 382 (Introduction to Biostatistics) as an elective course
- Add BIOL 403 (Molecular Basis of Cancer) as an elective course.
- Add BIOL 464 (Endocrinology) as an elective course.

3. Detailed program description:

Current program	**Proposed program**
Required coursework (48 hrs)	Required coursework (48 hrs)
CHEM 120/121: College Chemistry I & Lab (5)	CHEM 120/121: College Chemistry I & Lab (5)
CHEM 222/223: College Chemistry II & Lab (5)	CHEM 222/223: College Chemistry II & Lab (5)
CHEM 330: Quantitative Analysis (5)	CHEM 330: Quantitative Analysis (5)
CHEM 340/341: Organic Chemistry I & Lab (5)	CHEM 340/341: Organic Chemistry I & Lab (5)
CHEM 342/343: Organic Chemistry II & Lab (5)	CHEM 342/343: Organic Chemistry II & Lab (5)
BIOL 120/121: Biological Concepts: Cells, Metabolism, and Genetics & Lab (4)	BIOL 120/121: Biological Concepts: Cells, Metabolism, and Genetics & Lab (4)
BIOL 122/123: Biological Concepts: Evolution, Diversity and Ecology & Lab (4)	BIOL 122/123: Biological Concepts: Evolution, Diversity and Ecology & Lab (4)
BIOL 319/322: Introduction to Cellular and Molecular Biology & Lab (4)	BIOL 319/322: Introduction to Cellular and Molecular Biology & Lab (4)
BIOL 411: Cell Biology (3)	BIOL 411: Cell Biology (3)
BIOL/CHEM 446: Biochemistry I (3)	BIOL/CHEM 446: Biochemistry I (3)
BIOL/CHEM 447: Lab Biochemistry I (2)	BIOL/CHEM 447: Lab Biochemistry I (2)
BIOL/CHEM 467: Biochemistry II (3)	BIOL/CHEM 467: Biochemistry II (3)
Elective coursework (12 hrs)	Elective coursework (12 hrs)
BIOL 222/223: Plant Biology and Diversity & Lab (4)	**BIOL 212: Genome Discovery and Exploration (2)**
BIOL 224/225: Animal Biology and Diversity & Lab (4)	BIOL 222/223: Plant Biology and Diversity & Lab (4)

BIOL 226/227: Microbial Biology and Diversity & Lab (4) BIOL 316: Evolution (3) BIOL 327: Genetics (4) BIOL 328: Immunology (4) BIOL 330: Animal Physiology (3) BIOL 331: Lab Animal Physiology (1.5) BIOL 350: Introduction to Recombinant Genetics (3) BIOL 399: Research Problems in Biology (1-3) BIOL 400: Plant Physiology (4) BIOL 404: Electron Microscopy (4) BIOL 407: Virology (3) BIOL 412: Lab Cell Biology (1) BIOL 420: Introduction to Toxicology (3) BIOL 440: Developmental Genetics (3) BIOL 450:Recombinant Gene Technology (3) BIOL 475: Independent Topics in Biology (1-3) BIOL 495: Molecular Genetics (3) BIOL 496: Plant Biotechnology (4) CHEM 320: Principles of Inorganic Chemistry (3) CHEM 399: Lab Research Problems in Chemistry (1-3) CHEM 420: Inorganic Chemistry (3) or CHEM 430: Forensic Chemistry (3) CHEM 435: Instrumental Analysis (3) CHEM 412: Introduction to Physical Chemistry (5) or CHEM 450/451: Physical Chemistry I & Lab (5) and CHEM 452/453: Physical Chemistry II & Lab (5) CHEM 462: Bioinorganic Chemistry (3) CHEM 475: Selected Topics in Chemistry (1-3) AGRO 320: Crop Physiology (3) ANSC 344: Physiology and Anatomy of Animals (3) ANSC 345: Principles of Animal Nutrition (3) AGRO 350/351: Introduction to Soils & Lab (4) AGRO 352: Soil Fertility and Fertilizers (3) AGRI 399: Independent Research Problems in Agriculture (1-3) AGRO 409/410: Weed Science & Lab (3) ANSC 437/438: Physiology of Reproduction in Domestic Animals & Lab (3) ANSC 448: Feeds and Feeding Practices (4) AGRO 452: Soil Microbiology (3) AGRO 455/456: Soil Chemistry & Lab (3) PHYS 335: General Biophysics (4) PHYS 431: Radiation Biophysics (4) <u>Supporting coursework</u> MATH 136: Calculus I (4) PHYS 231/232: Introduction to Physics and Biophysics I & Lab (4)	BIOL 224/225: Animal Biology and Diversity & Lab (4) BIOL 226/227: Microbial Biology and Diversity & Lab (4) **BIOL 312: Bioinformatics (4)** BIOL 316: Evolution (3) BIOL 327/**337**: Genetics & **Lab** (4) BIOL 328: Immunology (4) BIOL 330: Animal Physiology (3) BIOL 331: Lab Animal Physiology (1.5) **BIOL 335: Neurobiology (3)** BIOL 350: Introduction to Recombinant Genetics (3) **BIOL 382: Introduction to Biostatistics (3)** BIOL 399: Research Problems in Biology (1-3) BIOL 400: Plant Physiology (4) **BIOL 403: Molecular Basis of Cancer (3)** BIOL 404: Electron Microscopy (4) BIOL 407: Virology (3) BIOL 412: Lab Cell Biology (1) BIOL 420: Introduction to Toxicology (3) BIOL 440: Developmental Genetics (3) BIOL 450:Recombinant Gene Technology (3) **BIOL 464: Endocrinology (3)** BIOL 475: Independent Topics in Biology (1-3) BIOL 495: Molecular Genetics (3) BIOL 496: Plant Biotechnology (4) CHEM 320: Principles of Inorganic Chemistry (3) CHEM 399: Lab Research Problems in Chemistry (1-3) CHEM 420: Inorganic Chemistry (3) or CHEM 430: Forensic Chemistry (3) CHEM 435: Instrumental Analysis (3) CHEM 412: Introduction to Physical Chemistry (5) or CHEM 450/451: Physical Chemistry I & Lab (5) and CHEM 452/453: Physical Chemistry II & Lab (5) CHEM 462: Bioinorganic Chemistry (3) CHEM 475: Selected Topics in Chemistry (1-3) AGRO 320: Crop Physiology (3) ANSC 344: Physiology and Anatomy of Animals (3) ANSC 345: Principles of Animal Nutrition (3) AGRO 350/351: Introduction to Soils & Lab (4) AGRO 352: Soil Fertility and Fertilizers (3) AGRI 399: Independent Research Problems in Agriculture (1-3) AGRO 409/410: Weed Science & Lab (3) ANSC 437/438: Physiology of Reproduction in Domestic Animals & Lab (3) ANSC 448: Feeds and Feeding Practices (4) AGRO 452: Soil Microbiology (3) AGRO 455/456: Soil Chemistry & Lab (3) PHYS 335: General Biophysics (4) PHYS 431: Radiation Biophysics (4) <u>Supporting coursework</u> MATH 136: Calculus I (4) PHYS 231/232: Introduction to Physics and Biophysics I & Lab (4)

and PHYS 332/233: Introduction to Physics and Biophysics II & Lab (4) or PHYS 255/256: University Physics I & Lab (5) and PHYS 265/266: University Physics II & Lab (5)	and PHYS 332/233: Introduction to Physics and Biophysics II & Lab (4) or PHYS 255/256: University Physics I & Lab (5) and PHYS 265/266: University Physics II & Lab (5)

4. Rationale for the proposed program change:

The Genetics Laboratory (BIOL 337) has recently been created by the Biology Department so that the Genetics course (BIOL 327) can be split into the Genetics lecture (BIOL 327) and the Genetics Laboratory (BIOL 337). The lab therefore needs to be added as an elective. The courses Genome Discovery and Exploration (BIOL 212), Bioinformatics (BIOL 312), Neurobiology (BIOL 335), Introduction to Biostatistics (BIOL 382), Molecular Basis of Cancer (BIOL 403) and Endocrinology (BIOL 464) are courses that were created since the Biochemistry Major curriculum was last updated in 2007. These courses are closely related to the subject of biochemistry and therefore should be added as possible electives to the major.

5. Proposed term for implementation and special provisions (if applicable):

Fall of 2016

6. Dates of prior committee approvals:

Department of Biology	**February 19, 2016**
Department of Chemistry	**February 24, 2016**
Ogden College Curriculum Committee	
Professional Education Council	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 2/1/16

Ogden College of Science and Engineering
Department of Geography and Geology
Proposal to Create a New Course
(Action Item)

Contact Person: David Keeling, david.keeling@wku.edu; 745-4555

1. **Identification of proposed course:**
   - 1.1 Course prefix (subject area) and number: GEOG 225
   - 1.2 Course title: Visualizing Geography: Understanding our Diverse World
   - 1.3 Abbreviated course title: Visualizing Geography
   - 1.4 Credit hours: 3
   - 1.5 Schedule type: Lecture
   - 1.6 Prerequisites: 21 hours of Colonnade Foundations & Explorations coursework.
   - 1.7 Grade type: standard letter grade
   - 1.8 Course description: Visualizing Geography uses photographs, maps, and illustrations to explain the diversity of human societies, political systems, resources, and population movement across space and time, from local communities to our increasingly interconnected world.

2. **Rationale:**
   - 2.1 Reason for developing the proposed course: The proposed course will help students make interdisciplinary connections between diverse patterns of human activity from local communities to an increasingly interconnected world. Students will analyze how spatial patterns and geographic processes are represented through maps, photographs, media, and other illustrative forms, and critically explore how these geographic representations influence the way we perceive the world at local and global scales.
   - 2.2 Projected enrollment in the proposed course: 40-100 students per section, depending on room availability. At least two sections offered each semester.
   - 2.3 Relationship of the proposed course to courses now offered by the department: The course complements the Department's offering of GEOG 110 (World Regional Geography), GEOG 227 Our Vulnerable Planet, and GEOG 385 (Society, Resources, Climate). The proposed course differs from all of these courses by its focus on visual imagery (photographs, maps, and illustrations) to explain and analyze local-to-global diversity.
   - 2.4 Relationship of the proposed course to courses offered in other departments: GEOG 225 has no comparable content outside the department. ART 331 (Visual Thinking) focuses on the process of lateral thinking and the visualization of design problems and their solutions, with an emphasis on effective research, imagination, originality, and execution in various media, but it does not use maps and landscape photographs in the same interpretive manner as GEOG 225. No other course outside the department uses photographs, maps, or illustrations to analyze and explicate the spatial (geographic) patterns and processes of human activity.

2.5 Relationship of the proposed course to courses offered in other institutions: Many institutions offer courses with content similar to the proposed GEOG 225, especially in the sub-discipline of Cartography/GIS. These institutions include Ohio Wesleyan (GEOG 353 – Cartography and Visualization), Macalester College (GEOG 111- Human Geography of Global Issues), Portland State (GEOG 350 – Geography of World Affairs), and Southern Mississippi (GEOG 103 – World Regions through Film). There are no institutions currently that integrate themes of local-to-global human diversity explicitly or exclusively through the lens of photographs, maps, and illustrations.

3. Discussion of proposed course:

3.1 Schedule type: Lecture

3.2 Learning Outcomes: After the completion of GEOG 225, students will be able to:

- Use maps and other forms of geographic visualization to identify and interpret geographic patterns and processes.
- Critically assess the value and validity of geographic visualization.
- Use the evidence and argument approach to learn how to interpret maps and other geospatial representations and explain their influence our behaviors and perceptions of the world at local and global scales.

3.3 Content outline:

- What is Geographic Visualization?
- How Maps are Created: From Pen and Ink to the Internet
- Visualizing the Environment: Sustainability, and Landscape Change
- Visualizing Demographics: Migration, Diffusion, and Diversity
- Boundaries and Identity: The Political and Cultural Implications of Maps
- Forensic Geography: Using Maps for Evidence and Problem Solving
- Geographic Visualization and the Media: From Front Page to Facebook
- Visualizing Popular Culture: Maps of the Moment
- Power of Maps: Propaganda, Persuasion, Perception, and Behavior

3.4 Student expectations and requirements: Students will be expected to complete weekly assignments involving visual imagery, readings and video presentations. Students will take quizzes, two to three exams and a final examination, some of which may be delivered online. A capstone project will involve the development and/or use of appropriate visual imagery.

3.5 Tentative texts and course materials:

Greiner, A., 2014, *Visualizing Human Geography: At Home in a Diverse World*, 2nd Edition. John Wiley and Sons, Inc.

4. Resources:

4.1 Library resources: Current resources are sufficient.

4.2 Computer resources: Existing resources are sufficient.

5. Budget implications:

5.1 Proposed method of staffing: the course will be staffed by existing faculty

5.2 Special equipment needed: no special equipment needed

5.3 Expendable materials needed: no expendable materials needed

5.4 Laboratory materials needed: no laboratory materials needed

6. **Proposed term for implementation:** Spring 2017

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

Department/ Unit: Geography and Geology	2/26/2016
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
Colonnade Committee	
University Senate	

Proposal Date: 2/12/16

Ogden College of Science and Engineering
Department of Geography and Geology
Proposal to Create a New Course
(Action Item)

Contact Person: Margaret M. Gripshover (margaret.gripshover@wku.edu) 270-779-3032

1. **Identification of proposed course:**
   - 1.1 Course prefix (subject area) and number: GEOG 386
   - 1.2 Course title: Geography of Potent Potables: Brewing, Distilling, and Wine Making
   - 1.3 Abbreviated course title: Geography of Potent Potables
   - 1.4 Credit hours: 3
   - 1.5 Schedule type: Lecture
   - 1.6 Prerequisites: 21 hours of Colonnade Foundations & Explorations coursework, or Junior Standing.
   - 1.7 Grade type: standard letter grade

   Course description: Students explore the geographies of alcoholic beverages, including the patterns of production, distribution, and consumption of beer, distilled spirits, and wine, and associated cultural and environmental impacts. Breweries, wineries, and distilleries are important elements of many diverse cultural and economic landscapes and reflect local geographies and global influences. The role of location is explored as it relates to such topics as access to raw materials, terroir, the rise of craft breweries and distilleries, sustainability, and cultural attitudes toward the production and consumption of alcoholic beverages.

2. **Rationale:**
   - 2.1 Reason for developing the proposed course: The proposed course will help students make interdisciplinary connections between diverse geographic patterns of alcoholic beverage production and consumption. Students will apply critical thinking skills as they explore spatial dimensions of brewing, distilling, and wine making industries as sustainable activities at local and global scales. With the growing interest in craft brewing, distilling, and wine making industries as economic development strategies in Kentucky and beyond, this course offers students an opportunity to explore the changing cultural and economic landscapes associated with alcoholic beverages.
   - 2.2 Projected enrollment in the proposed course: 25-50 students per section, depending on room availability. One section will be offered each semester.
   - 2.3 Relationship of the proposed course to courses now offered by the department: The course complements the Department's offering of GEOG 110 (World Regional Geography), GEOG 330 (Cultural Geography), GEOG 378 (Food, Culture, Environment), and GEOG 481 (Tourism Geography) The proposed course differs from all of these courses by its specific focus on the geography of alcoholic beverages.

2.4 Relationship of the proposed course to courses offered in other departments: AGRI 323 (Wine Fundamentals) has an agricultural focus on grape cultivation and wine, but does not cover beer or distilled spirits. There are three courses offered under the BDA (Brewing and Distilling Arts) prefix, but none has a specific focus on the geographic or cultural dimensions of these activities. BDA 301 (Raw Materials for Brewing and Distilling) focuses on the chemistry of alcohol. BDS 310 (Brewhouse and Distillery Processes) covers the science and technology of brewing and distilling. BDS 310-M1 (Brewhouse and Distillery Processes-Module 1), and BDA 310-M2 (Brewhouse Distillery Processes-Module 2) covers fermentation methodology. The Department of History offers HIST 341 (A Cultural History of Alcohol) but does not take a spatial or environmental approach to the subject. HMD 471 (Catering and Beverage Management) covers storage and serving equipment for alcoholic beverages. None of the courses offered by other departments duplicate the topics covered in the proposed GEOG 386 course. The proposed course would, however, be complementary to some of these existing courses.

2.5 Relationship of the proposed course to courses offered in other institutions: Interest in offering courses on the geography of alcoholic beverages is on the rise and also reflected in the growing scholarship on the subject. Here is a sample of some comparable courses offered at other universities: The University of Florida has a course titled, "Geography of Alcohol" (GEO 3803). Virginia Tech offers "Geography of Wine" (GEO 4054), which has also been offered through the Semester at Sea Program. Stephen F. Austin University offers GEO 375, "The Geography of Beer." The University of North Alabama's Geography Department offers, a "Geography of Alcoholic Beverages" course for undergraduate and graduate students. Portland State University offers a course in the "Geography of Wine" (GEOG 240). The proposed GEOG 386 course would be on the cutting edge of local and global aspects of alcoholic beverage studies and would provide a unique learning experience for WKU students.

3. Discussion of proposed course:

3.1 Schedule type: Lecture

3.2 Learning Outcomes: After the completion of GEOG 386, students will be able to:

- Understand the geographic dimensions of the production and consumption of alcoholic beverages.
- Critically evaluate the role of culture in brewing, distilling, and wine making.
- Use the evidence and argument approach to interpret spatial and structural changes within the alcoholic beverage industries and assess their impacts on economic and cultural landscapes at local and global scales.

3.3 Content outline:

- Geographic Origins and Diffusion of Alcoholic Beverages
- Environmental Factors that Influence Alcoholic Beverage Production
    - Climate, Soils, Natural Resources, Terroir
- Culture and Alcohol
    - Geographic Dimensions of Temperance and Prohibition
    - Dry, Moist, and Wet Counties: Spatial Patterns
    - Religion, Gender, Race, and Ethnicity: Cultural Implications and Identity
    - Alcohol and Popular Culture
- Geography of Beer
    - Spatial and Temporal Patterns and Changes in Beer Production

    - Landscapes of Brewing
    - From Budweiser to Bell's: Macro and Micro-Scale Breweries
    - Rise of Home Brewing and Craft Brewing
- Geography of Distilling
    - Spatial and Temporal Patterns and Changes in Distilling
    - Landscapes of Distilling in Kentucky and Beyond
    - Geographic Branding: How Place Makes the Product
    - Micro and Macro-Distilleries: Local to Global Markets
- Geography of Viticulture and Wine Making
    - Spatial and Temporal Patterns and Changes in Wine Making
    - Geography, Grapes, Vineyards, Terroir
    - Established and Emerging Wine Regions
    - Wine and Culture: Symbolism and Snobbery
- The Future of Brewing, Distilling, and Wine Making
    - Tourism and Economic Development
    - Environmental Impacts and Sustainability
    - Future Industry Expansion and Market Saturation

3.4 Student expectations and requirements: Students will be expected to attend class, participate in field experiences, and work individually and collaboratively on a capstone research project. There will be reading assignments, three exams, and several assignments completed during the semester.

3.5 Tentative texts and course materials:

Patterson, M., N. Pullen-Hoalst (Eds.) 2014. *The Geography of Beer: Regions, Environment, and Societies*. Springer.

Veach, M. R. 2013. Kentucky *Bourbon Whiskey: An American Heritage.* University of Kentucky Press.

Doughtery, P. H. (Ed.) 2012. *The Geography of Wine: Regions, Terroir, and Techniques*. Springer.

4. Resources:

4.1 Library resources: Current resources are sufficient.

4.2 Computer resources: Existing resources are sufficient.

5. Budget implications:

5.1 Proposed method of staffing: the course will be staffed by existing faculty

5.2 Special equipment needed: no special equipment needed

5.3 Expendable materials needed: no expendable materials needed, and no alcohol will be consumed during this course.

5.4 Laboratory materials needed: no laboratory materials needed

6. Proposed term for implementation: Spring 2017

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

Department of Geography and Geology	2/26/2016
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
Colonnade Committee	
University Senate	

Proposal Date: 2/19/2016

Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Revise A Program
(Action Item)

Contact Person: Sharon Mutter, sharon.mutter@wku.edu, (270) 745-4389

1. Identification of program:

1.1 Current program reference number: 434
1.2 Current program title: Minor in Neuroscience
1.3 Credit hours: 21 hours

2. Identification of the proposed program changes:

2.1 Add PSYS 160 Introduction to Biological Psychology to minor as an alternative to PSYS 100 Introduction to Psychology

3. Detailed program description:

The minor in Neuroscience requires a minimum of 21 credit hours of coursework. This includes 6 hours of required courses and an additional 15 credit hours in electives. Students must earn a grade of C or better in all courses applied toward the minor. Students must take PSYS 100 and BIOL 120/121 prior to beginning their coursework in the minor. Students who are majoring in Biology or Psychological Science may apply no more than six hours of their major course work to the minor. The following courses are required (6 hours): PSYS 360 Behavioral Neuroscience (3 hours) BIOL 335 Neurobiology (3 hours) At least 15 credit hours may be selected from the following courses. Students must choose at least 1 course each from Biology and Psychological Sciences. Note that some of these courses have prerequisites beyond those required by the minor. PSYS 331 Psychology of Learning (3 hours) PSYS 333 Cognitive Psychology (3 hours) PSYS 363 Sensory and Perceptual Systems (3 hours) PSYS 462 Neuroscience of Learning and Memory (3 hours)	The minor in Neuroscience requires a minimum of 21 credit hours of coursework. This includes 6 hours of required courses and an additional 15 credit hours in electives. Students must earn a grade of C or better in all courses applied toward the minor. Students must take PSYS 100 **or 160** and BIOL 120/121 prior to beginning their coursework in the minor. Students who are majoring in Biology or Psychological Science may apply no more than six hours of their major course work to the minor. The following courses are required (6 hours): PSYS 360 Behavioral Neuroscience (3 hours) BIOL 335 Neurobiology (3 hours) At least 15 credit hours may be selected from the following courses. Students must choose at least 1 course each from Biology and Psychological Sciences. Note that some of these courses have prerequisites beyond those required by the minor. PSYS 331 Psychology of Learning (3 hours) PSYS 333 Cognitive Psychology (3 hours) PSYS 363 Sensory and Perceptual Systems (3 hours) PSYS 462 Neuroscience of Learning and Memory (3 hours) PSYS 465 Psychopharmacology (3 hours)

PSYS 465 Psychopharmacology (3 hours) BIOL 319 Introduction to Molecular and Cell Biology BIOL 327 Genetics (3 hours) BIOL 334 Animal Behavior (3 hours) BIOL/CHEM 446 Biochemistry (3 hours) PHIL 332 Philosophy of Mind: Minds and Machines (3) Though not required for the minor, students are strongly encouraged to obtain research experience in topics related to neuroscience. There are several laboratories in the Psychological Science, Biology, and Chemistry departments that offer research opportunities to undergraduate students. For more information on research laboratories and opportunities, students should review the websites of faculty in these departments.	BIOL 319 Introduction to Molecular and Cell Biology BIOL 327 Genetics (3 hours) BIOL 334 Animal Behavior (3 hours) BIOL/CHEM 446 Biochemistry (3 hours) PHIL 332 Philosophy of Mind: Minds and Machines (3) Though not required for the minor, students are strongly encouraged to obtain research experience in topics related to neuroscience. There are several laboratories in the Psychological Science, Biology, and Chemistry departments that offer research opportunities to undergraduate students. For more information on research laboratories and opportunities, students should review the websites of faculty in these departments.

4. **Rationale for the proposed program change:**
This minor was designed to appeal to pre-professional students. The APA Board of Educational Affairs has estimated that because of changes in health practitioner admissions standards, nearly all pre-health students will take an introductory level psychology course in the next few years. The addition of PSYS 160 to the Neuroscience minor will ensure that students enrolled in this minor have the option to complete an introductory course that provides a strong foundation on which they can build a biopsychosocial approach to understanding health and development.

5. **Proposed term for implementation and special provisions (if applicable):** Fall 2016

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

Department of Psychological Sciences	**February 19, 2016**
OCSE College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 2/19/2016

Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Revise A Program
(Action Item)

Contact Person: Andrew Mienaltowski, andrew.mienaltowski@wku.edu, (270) 745-2353

1. Identification of program:

1.1 Current program reference number: 440
1.2 Current program title: Minor in Psychological Science
1.3 Credit hours: 22 hours

2. Identification of the proposed program changes:

- For the introductory level course required for the program, students can choose to take either PSYS 100 or PSYS 160.

3. Detailed program description:

The minor in Psychological Science provides graduates with a broad overview of the discipline as well as exposure to the foundations of the discipline. The Psychological Science minor focuses students on becoming more engaged and critical consumers of the science underlying psychology through courses informed by current research and practice in the scientific student of individual and collective behavior, the physical and environmental bases of behavior, and the analysis and treatment of behavioral problems. This minor might appeal to students who are in a pre-professional track (e.g., pre-med) or to students majoring in disciplines where psychological science can inform research and practice (e.g., biology, computer science, philosophy, religious studies, nursing, communication disorders, management, etc.).	The minor in Psychological Science provides graduates with a broad overview of the discipline as well as exposure to the foundations of the discipline. The Psychological Science minor focuses students on becoming more engaged and critical consumers of the science underlying psychology through courses informed by current research and practice in the scientific student of individual and collective behavior, the physical and environmental bases of behavior, and the analysis and treatment of behavioral problems. This minor might appeal to students who are in a pre-professional track (e.g., pre-med) or to students majoring in disciplines where psychological science can inform research and practice (e.g., biology, computer science, philosophy, religious studies, nursing, communication disorders, management, etc.).
The minor requires a minimum of 22 credit hours. The following 7 hours are required: PSYS 100, 210, and 211.	The minor requires a minimum of 22 credit hours. The following 7 hours are required: PSYS 100 **or PSYS 160**, 210, and 211.
Students must select 3 hours from the following Individual Differences and Social Processes (Category A) courses: PSYS 350 or 440.	Students must select 3 hours from the following Individual Differences and Social Processes (Category A) courses: PSYS 350 or 440.

Another 3 hours must be selected from Learning, Cognition, and Biopsychology (Category B) courses: PSYS 331, 333, 360, or 363. Students must select 3 hours from the following Developmental Processes (Category C) courses: PSYS 220, 321, or 423. Six additional upper-level credit hours of PSYS courses are required. These hours can include the above restricted elective courses that were not taken to meet the requirements of Categories A, B, and C. These hours can include no more than 3 credit hours of PSYS 490.	Another 3 hours must be selected from Learning, Cognition, and Biopsychology (Category B) courses: PSYS 331, 333, 360, or 363. Students must select 3 hours from the following Developmental Processes (Category C) courses: PSYS 220, 321, or 423. Six additional upper-level credit hours of PSYS courses are required. These hours can include the above restricted elective courses that were not taken to meet the requirements of Categories A, B, and C. These hours can include no more than 3 credit hours of PSYS 490.

(Side-by-side table is required for most program changes showing revised program on the right and identifying deletions by strike-through and additions in boldface.)

4. **Rationale for the proposed program change:**
All students within the minor are required to take one introductory level psychological sciences course. The proposed revision will allow students to take PSYS 100 or PSYS 160. Each course gives students the appropriate introductory level background for the upper level courses included in the Psychological Science minor.

5. **Proposed term for implementation and special provisions (if applicable):** Fall 2016

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

Department of Psychological Sciences	**2/19/2016**
OCSE College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

Proposal Date: 2/8/16

Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Revise A Program
(Action Item)

Contact Person: Sharon Mutter, Sharon.mutter@wku.edu, x54389

1. **Identification of program:**
   - 1.1 Current program reference number: 747
   - 1.2 Current program title: B.S. in Psychological Sciences
   - 1.3 Credit hours: 37

2. **Identification of the proposed program changes:**
   - 2.1 Add a 49 - hour extended major
   - 2.2 Revise the wording in the program description
   - 2.3 Rename the Capstone category to Integrative Science in Psychology
   - 2.4 Add PSYS 160 Introduction to Biological Psychology to the Foundations of Psychology core category
   - 2.5 Add PSYS 321 as an elective in the Developmental Processes core category
   - 2.6 Add PSYS 380 Psychology and Science Fiction to the electives in the Integrative Science in Psychology (formerly Capstone) core category
   - 2.7 Add PSYS 220 to the Developmental Science concentration and PSYS 423 to the Clinical Psychological Science concentration
   - 2.8 Remove PSY 443 from the Clinical Psychological Science concentration
   - 2.9 Remove PSYS 481 from the Biobehavioral Psychology, Cognitive Psychology, Developmental Science, and Social Psychology concentrations

3. **Detailed program description:**

CURRENT PROGRAM	REVISED PROGRAM
The major in Psychological Science requires a minimum of 37 credit hours and leads to a Bachelor of Science degree. A minor or second major is required. The program is designed for students who are interested in a science – oriented degree that will prepare them for graduate study in psychology or a related field (e.g., medical school, pharmacy, physical therapy) or for employment in jobs where strong quantitative and research skills are required.	**The Department of Psychological Sciences offers programs designed for students who are interested in a science – oriented degree that will prepare them for graduate study in psychology or a related field (e.g., medical school, pharmacy, physical therapy) or for employment in jobs where strong quantitative and research skills are required. The department provides two options for the Bachelor of Science degree.** The major in Psychological Science **(Reference # 747)** requires a minimum of 37 credit hours and ~~leads to a Bachelor of Science degree~~. a minor or second major is required. ~~The program is designed for students who are interested in a science – oriented degree that will prepare them for graduate study in psychology or a related field (e.g., medical school, pharmacy, physical therapy) or for employment in jobs where strong quantitative and research skills are required.~~ **The**

	extended major in Psychological Science (Reference #xxx) requires a minimum of 49 credit hours and no minor or second major is required.
Students may choose from one of six thematic concentrations or they may design an individualized concentration that best fits their interests (subject to approval by their advisor). For all concentrations, students will complete a required course of study totaling 37 credit hours that includes courses from the following program components: Foundations of Psychology (15 hours), Research Methods and Statistics (7 hours), Capstone (3 hours), and Concentration (12 hours). Students must maintain a minimum 2.50 GPA both overall and in psychology. Either (1) MATH 116 and MATH 117, or (2) MATH 118 or higher is required; MATH 183 is recommended.	~~Students may choose from one of six thematic concentrations or they may design an individualized concentration that best fits their interests (subject to approval by their advisor).~~ For ~~all concentrations~~ **both the 37 – hour major and the 49 – hour extended major,** students will complete a ~~required course~~ **program** of study ~~totaling 37 credit hours~~ that includes ~~courses from the following program~~ **Core and Concentration** components**. To complete their Core requirement, students will select 25 to 28 credit hours from each of the following categories**: Foundations of Psychology**, Developmental Processes, Learning and Cognition, Individual Differences and Social Processes, Biological Bases of Behavior and Mental Processes,** Research Methods and Statistics, **and** ~~Capstone~~ **Integrative Science in Psychology,** ~~and Concentration (12 hours)~~ **To complete their Concentration requirement, students may choose from six thematic concentrations or they may design a custom concentration that best fits their interests (subject to approval by their advisor). Students in the 37 – hour major will complete 12 credit hours from one concentration and those in the 49 – hour extended major will complete 21 - 24 credit hours from two concentrations.** ~~Students must maintain a minimum 2.50 GPA both overall and in psychology. Either (1) MATH 116 and MATH 117, or (2) MATH 118 or higher is required; MATH 183 is recommended. Each of the six thematic concentrations requires 12 hours from a unique set of required and elective courses.~~ Students who choose to design ~~their own "custom"~~ **a custom** concentration should select 12 - **24** hours from courses not used to satisfy their ~~Foundations of Psychology requirement~~ **Core requirement** ~~or from concentration courses in any of the thematic concentrations.~~
Each of the six thematic concentrations requires 12 hours from a unique set of required and elective courses. Students who choose to design their own "custom" concentration should select 12 hours from courses not used to satisfy their Foundations of Psychology requirement or from concentration courses in any of the thematic concentrations.	**Students must maintain a minimum 2.50 GPA both overall and in psychology. Either (1) MATH 116 and MATH 117, or (2) MATH 118**

	or higher is required; MATH 183 is recommended.
Applied Psychological Science. This concentration focuses on how psychological science can be used to solve real-world problems in business, sports, or human engineering domains. Core Courses Foundations of Psychology (3 hours): PSYS 100 Developmental Processes (3 hours): PSYS 220 Learning and Cognition (3 hours): PSYS 333 Individual Differences and Social Processes (3 hours): PSYS 350 Biological Bases of Behavior and Mental Processes (3 hours): PSYS 360 or 363 Research Methods and Statistics (7 hours): PSYS 210, 211, 313 Capstone (3 hours): PSYS 481 or 490 Concentration Courses PSYS 413 (3 hours) Electives (9 hours): PSYS 360, 363, 370, 433, 473, 481, 490, 499, PSY 340, 355, 412, 470	Applied Psychological Science. This concentration focuses on how psychological science can be used to solve real-world problems in business, sports, or human engineering domains. ~~Core Courses~~ ~~Foundations of Psychology (3 hours): PSYS 100~~ ~~Developmental Processes (3 hours): PSYS 220~~ ~~Learning and Cognition (3 hours): PSYS 333~~ ~~Individual Differences and Social Processes (3 hours): PSYS 350~~ ~~Biological Bases of Behavior and Mental Processes (3 hours): PSYS 360 or 363~~ ~~Research Methods and Statistics (7 hours): PSYS 210, 211, 313~~ ~~Capstone (3 hours): PSYS 481 or 490~~ **Core Courses** **PSYS 100 or 160, 220 or 321, 333, 350, 360 or 363, 210, 211, 313, 380 or 481 or 490** Concentration Courses **Required:** PSYS 413 ~~(3 hours)~~ Electives ~~(9 hours)~~: **Choose 9 hours from** PSYS 360, 363, 370, 433, 473, 481, 490, 499, PSY 340, 355, 412, 470
Biobehavioral Psychology. The concentration in Biobehavioral Psychology provides knowledge of the biological bases of behavior and thought Core Courses Foundations of Psychology (3 hours): PSYS 100 Developmental Processes (3 hours): PSYS 220 Learning and Cognition (3 hours): PSYS 331 Individual Differences and Social Processes (3 hours): PSYS 350 or 440 Biological Bases of Behavior and Mental Processes (3 hours): PSYS 360 Research Methods and Statistics (7 hours): PSYS 210, 211, 313 Capstone (3 hours): PSYS 481 or 490	Biobehavioral Psychology. ~~The~~ **This** concentration ~~in Biobehavioral Psychology~~ provides knowledge of the biological bases of behavior and thought. ~~Core Courses~~ ~~Foundations of Psychology (3 hours): PSYS 100~~ ~~Developmental Processes (3 hours): PSYS 220~~ ~~Learning and Cognition (3 hours): PSYS 331~~ ~~Individual Differences and Social Processes (3 hours): PSYS 350 or 440~~ ~~Biological Bases of Behavior and Mental Processes (3 hours): PSYS 360~~ ~~Research Methods and Statistics (7 hours): PSYS 210, 211, 313~~ ~~Capstone (3 hours): PSYS 481 or 490~~

Concentration Courses PSYS 363 (3 hours) Electives (9 hours): PSYS 333, 431, 462, 463, 465, 481, 483, 490, 499	**Core Courses** **PSYS 100 or 160, 220 or 321, 331, 350 or 440, 360, 210, 211, 313, 380 or 481 or 490** Concentration Courses **Required:** PSYS 363 ~~(3 hours)~~ Electives ~~(9 hours)~~: **Choose 9 hours from** PSYS 333, 431, 462, 463, 465, ~~481~~, 483, 490, 499
Clinical Psychological Science. The concentration in Clinical Psychological Science focuses on mechanisms and etiologies of psychological health and dysfunction. Core Courses Foundations of Psychology (3 hours): PSYS 100 Developmental Processes (3 hours): PSYS 220 Learning and Cognition (3 hours): PSYS 331 or 333 Individual Differences and Social Processes (3 hours): PSYS 440 Biological Bases of Behavior and Mental Processes (3 hours): PSYS 360 or 363 Research Methods and Statistics (7 hours): PSYS 210, 211, 313 Capstone (3 hours): PSYS 481 or 490	Clinical Psychological Science. **This**~~The~~ concentration ~~in Clinical Psychological Science~~ focuses on mechanisms and etiologies of psychological health and dysfunction. ~~Core Courses~~ ~~Foundations of Psychology (3 hours): PSYS 100~~ ~~Developmental Processes (3 hours): PSYS 220~~ ~~Learning and Cognition (3 hours): PSYS 331 or 333~~ ~~Individual Differences and Social Processes (3 hours): PSYS 440~~ ~~Biological Bases of Behavior and Mental Processes (3 hours): PSYS 360 or 363~~ ~~Research Methods and Statistics (7 hours): PSYS 210, 211, 313~~ ~~Capstone (3 hours): PSYS 481 or 490~~ **Core Courses** **PSYS 100 or 160, 220 or 321, 331 or 333, 440, 360 or 363, 210, 211, 313, 380 or 481 or 490**
Concentration Courses Electives (12 hours): PSYS 350, 360, 413, 450, 451, 453, 462, 465, 481, 483, 490, 499, PSY 443	Concentration Courses ~~Electives (12 hours):~~ **Choose 12 hours from** PSYS 350, 360, 413, **423**, 450, 451, 453, 462, 465, 481, 483, 490, 499~~, PSY 443~~
Cognitive Psychology. The concentration in Cognitive Psychology concentration emphasizes the scientific study of mental processes such as attention, perception, memory, problem-solving, thinking, and language use. Core Courses Foundations of Psychology (3 hours): PSYS 100 Developmental Processes (3 hours): PSYS 220 Learning and Cognition (3 hours): PSYS 333	Cognitive Psychology. **This**~~The~~ concentration ~~in Cognitive Psychology concentration~~ emphasizes the scientific study of mental processes such as attention, perception, memory, problem-solving, thinking, and language use. ~~Core Courses~~ ~~Foundations of Psychology (3 hours): PSYS 100~~ ~~Developmental Processes (3 hours): PSYS 220~~ ~~Learning and Cognition (3 hours): PSYS 333~~

Individual Differences and Social Processes (3 hours): PSYS 350 or 440 Biological Bases of Behavior and Mental Processes (3 hours): PSYS 360 or 363 Research Methods and Statistics (7 hours): PSYS 210, 211, 313 Capstone (3 hours): PSYS 481 or 490	~~Individual Differences and Social Processes (3 hours): PSYS 350 or 440~~ ~~Biological Bases of Behavior and Mental Processes (3 hours): PSYS 360 or 363~~ ~~Research Methods and Statistics (7 hours): PSYS 210, 211, 313~~ ~~Capstone (3 hours): PSYS 481 or 490~~ **Core Courses** **PSYS 100 or 160, 220 or 321, 333, 350 or 440, 360 or 363, 210, 211, 313, 380 or 481 or 490**
Concentration Courses Electives (12 hours): PSYS 331, 363, 423, 431, 433, 462, 481, 490, 499, PSY 412	Concentration Courses ~~Electives (12 hours):~~ **Choose 12 hours from** PSYS 331, 363, 423, 431, 433, 462, ~~481~~, 490, 499, PSY 412
Developmental Science. The concentration in Developmental Science addresses the physical, emotional, intellectual, social, perceptual, and personality growth of humans throughout the lifespan.	Developmental Science. **This**~~The~~ concentration ~~in Developmental Science~~ addresses the physical, emotional, intellectual, social, perceptual, and personality growth of humans throughout the lifespan.
Core Courses Foundations of Psychology (3 hours): PSYS 100 Developmental Processes (3 hours): PSYS 220 Learning and Cognition (3 hours): PSYS 331 or 333 Individual Differences and Social Processes (3 hours): PSYS 350 or 440 Biological Bases of Behavior and Mental Processes (3 hours): PSYS 360 or 363 Research Methods and Statistics (7 hours): PSYS 210, 211, 313 Capstone (3 hours): PSYS 481 or 490	~~Core Courses~~ ~~Foundations of Psychology (3 hours): PSYS 100~~ ~~Developmental Processes (3 hours): PSYS 220~~ ~~Learning and Cognition (3 hours): PSYS 331 or 333~~ ~~Individual Differences and Social Processes (3 hours): PSYS 350 or 440~~ ~~Biological Bases of Behavior and Mental Processes (3 hours): PSYS 360 or 363~~ ~~Research Methods and Statistics (7 hours): PSYS 210, 211, 313~~ ~~Capstone (3 hours): PSYS 481 or 490~~ **Core Courses** **PSYS 100 or 160, 220 or 321, 331 or 333, 350 or 440, 360 or 363, 210, 211, 313, 380 or 481 or 490**
Concentration Courses Electives (12 hours): PSYS 321, 423, 424, 431, 481, 483, 490, 499, PSY 422	Concentration Courses ~~Electives (12 hours):~~ **Choose 12 hours from** PSYS **220**, 321, 423, 424, 431, ~~481~~, 483, 490, 499, PSY 422

Social Psychology. The concentration in Social Psychology emphasizes the study of how social situations affect behavior. Core Courses Foundations of Psychology (3 hours): PSYS 100 Developmental Processes (3 hours): PSYS 220 Learning and Cognition (3 hours): PSYS 331 or 333 Individual Differences and Social Processes (3 hours): PSYS 350 Biological Bases of Behavior and Mental Processes (3 hours): PSYS 360 or 363 Research Methods and Statistics (7 hours): PSYS 210, 211, 313 Capstone (3 hours): PSYS 481 or 490 Concentration Courses PSYS 413 (3 hours) Electives (9 hours): PSYS 433, 440, 450, 451, 453, 465, 481, 483, 490, 499, PSY 412	Social Psychology. **This**~~The~~ concentration ~~in Social Psychology~~ emphasizes the study of how social situations affect behavior. ~~Core Courses~~ ~~Foundations of Psychology (3 hours): PSYS 100~~ ~~Developmental Processes (3 hours): PSYS 220~~ ~~Learning and Cognition (3 hours): PSYS 331 or 333~~ ~~Individual Differences and Social Processes (3 hours): PSYS 350~~ ~~Biological Bases of Behavior and Mental Processes (3 hours): PSYS 360 or 363~~ ~~Research Methods and Statistics (7 hours): PSYS 210, 211, 313~~ ~~Capstone (3 hours): PSYS 481 or 490~~ **Core Courses** **PSYS 100 or 160, 220 or 321, 331 or 333, 350, 360 or 363, 210, 211, 313, 380 or 481 or 490** Concentration Courses **Required:** PSYS 413 ~~(3 hours)~~ Electives ~~(9 hours)~~: **Choose 9 hours from** PSYS 433, 440, 450, 451, 453, 465, ~~481~~, 483, 490, 499, PSY 412
Custom Concentration. This concentration allows the student, with help from his/her advisor, to design an individualized theme. Core Courses Foundations of Psychology (3 hours): PSYS 100 Developmental Processes (3 hours): PSYS 220 Learning and Cognition (3 hours): PSYS 331 or 333 Individual Differences and Social Processes (3 hours): PSYS 350 or 440 Biological Bases of Behavior and Mental Processes (3 hours): PSYS 360 or 363 Research Methods and Statistics (7 hours): PSYS 210, 211, 313 Capstone (3 hours): PSYS 481 or 490	Custom Concentration. This concentration allows ~~the student~~ **students**, with help from ~~his/her~~ **their** advisors, to design an individualized theme. ~~Core Courses~~ ~~Foundations of Psychology (3 hours): PSYS 100~~ ~~Developmental Processes (3 hours): PSYS 220~~ ~~Learning and Cognition (3 hours): PSYS 331 or 333~~ ~~Individual Differences and Social Processes (3 hours): PSYS 350 or 440~~ ~~Biological Bases of Behavior and Mental Processes (3 hours): PSYS 360 or 363~~ ~~Research Methods and Statistics (7 hours): PSYS 210, 211, 313~~ ~~Capstone (3 hours): PSYS 481 or 490~~ **Core Courses**

Concentration Courses Electives (12 hours): from any concentration and from courses not used in the Core Courses	**PSYS 100 or 160, 220 or 321, 331 or 333, 350 or 440, 360 or 363, 210, 211, 313, 380 or 481 or 490** Concentration Courses ~~Electives (12 hours): from any concentration and from courses not used in the Core Courses~~ **Select 12 – 24 hours of electives from courses not used to satisfy Core requirements.**

4. **Rationale for the proposed program change:**

4.1 The 49-hour extended major option was added to give students greater flexibility in completing their degree programs. This option should be especially appealing to students who intend to pursue graduate study in psychological science. Research suggests that one of the best predictors of success in graduate school is a students' score on the GRE Subject Test (Kuncel, Hazlet, & Ones, 2001). Students who select the extended major in Psychological Science will have a unique opportunity to acquire a greater depth of knowledge in areas of psychology that are of particular interest to them.

4.2 Wording changes were made to accommodate the description of the extended major, to clarify meaning, and to reduce the amount of text in the descriptions of the concentrations.

4.3 The name of the Capstone category was changed to Integrative Science in Psychology to better reflect the nature of the courses included in this category.

4.4 PSYS 160 was added to the major in the Foundations of Psychology core category to strengthen the identity of Psychology as a STEM discipline and to help students understand the contributions of molecular, cellular, physiological, and evolutionary biology to the scientific understanding of psychological processes.

4.5 PSYS 321 was added to the Developmental Processes core category to give students additional options to meet this requirement.

4.6 PSYS 380 Psychology and Science Fiction was added to the major to give students additional options to meet their Integrative Science in Psychology (formerly Capstone) requirement. This course asks students to evaluate the validity of a wide variety of psychological issues portrayed in science fiction and thus requires that students consolidate and apply the knowledge they have gained about Psychology from their other courses in the major.

4.7 PSYS 220 was added to the Developmental Science concentration and PSYS 423 was added to the Clinical Psychological Science concentration to provide students with a greater selection of courses with content that is relevant to these concentrations.

4.8 PSY 443 was removed from the Clinical Psychological Sciences concentration to improve the thematic focus of the concentration.

4.9 PSYS 481 was removed from the Biobehavioral Psychology, Cognitive Psychology, Developmental Science, and Social Psychology concentrations to improve the thematic focus of these concentrations.

5. **Proposed term for implementation and special provisions (if applicable):** Fall 2016

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

Department of Psychological Sciences February 19, 2016

Ogden College Curriculum Committee _____

Undergraduate Curriculum Committee _____

University Senate _____