

**MEMORANDUM TO:** Ogden College of Science and Engineering Curriculum Committee

Dr. Jack Rudolph	Dr. James Gary	Dr. Terry Leeper
Dr. Martin Stone	Dr. Zhonghang Xia	Dr. John Khouryieh
Dr. Bruce Schulte	Dr. Julie Ellis	Dr. Peter Hamburger
Dr. Scott Grubbs	Dr. Warren Campbell	Dr. Keith Andrew
Dr. Cathleen Webb	Dr. David Keeling	Dr. Attila Por
Dr. Hemali Rathnayake	Dr. Fred Siewers	Dr. Alex Barzilov
Dr. David Erbach		

**FROM:** Andrew Ernest, Chair

**SUBJECT:** Agenda for Thursday, December 1, 2011, at 3:45 p.m. in COHH 4123

**A. OLD BUSINESS:**

- I. Consideration of the minutes of the November 3, 2011, meeting.

**B. NEW BUSINESS:**

**Information Items**

1. Proposal to Create a Temporary Course
  - a. ME 332, Fluid Mechanics Laboratory, 1 hour

**Consent Items**

1. Proposal to Revise Course Corequisites
  - a. AMS 261, Construction Methods and Materials, 3 hours
  - b. AMS 262, Construction Laboratory, 1 hour
2. Proposal to Revise Course Prerequisites
  - a. CS 239, Problem Solving with Computational Techniques, 3 hours
  - b. CS 251, Introduction to Database, 3 hours
  - c. CS 270, Introduction to Web Programming, 3 hours
  - d. CS 325, Computer Systems Hardware and Software, 3 hours
  - e. CS 370, XML and Web Programming, 3 hours
  - f. CS 381, Intro to Computer Networks, 3 hours
  - g. CS 450, Computer Networks, 3 hours
  - h. CS 496, Senior Project and Professional Practice, 3 hours
3. Proposal to Revise Course Prerequisites/Corequisites
  - a. MATH 304, Functions, Applications & Explorations, 3 hours
  - b. MATH 421, Problem Solving for Secondary Teachers, 3 hours
  - c. MATH 423, Geometry II, 3 hours
  - d. PHYS 316, Computational Physics, 3 hours
  - e. PHYS 318, Data Acquisition Using LabVIEW, 3 hours

4. Proposal to Suspend a Course
  - a. BIOL 389, Cooperative Education in Biology II, 3 hours
  - b. BIOL 469, Cooperative Education in Biology III, 3 hours

**Action Items**

**Department of Architectural and Manufacturing Sciences**

1. Proposal to Revise a Program
  - a. Ref. #518, Architectural Science, 83 hours

**Department of Biology**

1. Proposal to Make Multiple Revisions to a Course
  - a. BIOL 369, Cooperative Education in Biology I, 3 hours
  
2. Proposal to Revise a Program
  - a. Ref. #525, Major in Biology (without a minor), 48 hours
  - b. Ref. #617, Major in Biology (with a minor), 36 hours

**C. OTHER BUSINESS**

**MEMBERS PRESENT:**

Dr. Bruce Schulte	Dr. Warren Campbell
Dr. Scott Grubbs	Dr. David Keeling
Dr. Cathleen Webb	Dr. Fred Siewers
Dr. Hemalie Rathnayake	Dr. John Khouryieh
Dr. David Erbach	Dr. Peter Hamburger
Dr. James Gary	Dr. Keith Andrew
Dr. Zhonghang Xia	Dr. Attila Por
Dr. Julie Ellis	Dr. Carini for Dr. Barzilov

**Visitors:** Gail Ledford; Blake Butkovich; Gail Smallwood, Rico Tyler, Martha Day, Scott Bonham; and Shane Palmquist

**FROM:** Andrew Ernest, Chair

**OLD BUSINESS:**

Hamburger/Campbell moved approval of the minutes of the October 13, 2011, meeting. Motion passed.

Carini/Andrew moved to table the proposal to revise a program, Ref. #734, Middle School Science Education (“MSSE”). After discussion the motion to table was withdrawn.

Campbell/Hamburger moved approved of the proposal to revise a program, Ref. #734, Middle School Science Education (“MSSE”). Motion failed on a vote of five (5) yes, nine (9) no and two (2) abstentions.

**NEW BUSINESS:**

**Information Items**

Dr. Carini made a motion to move the informational items, SMED 300, Middle Grades Science Skill and Methods and SMED 400, Applying Middle Grade Science Across Disciplines to the action agenda. Dr. Ernest, committee chair, would not allow the motion.

**Consent Items**

1. Proposal to Delete a Course
  - a. CS 145, Introduction to Computing, 3 hours
2. Proposal to Revise Course Prerequisites
  - a. MATH 305, Introduction to Mathematical Modeling, 3 hours

- b. MATH 310, Introduction to Discrete Mathematics, 3 hours
- c. MATH 315, Theory of Numbers, 3 hours
- d. MATH 317, Introduction to Algebraic Systems, 3 hours
- e. MATH 323, Geometry I, 3 hours
- f. MATH 331, Differential Equations, 3 hours
- g. MATH 382, Probability and Statistics I, 3 hours
- h. MATH 398, Seminar, 3 hours
- i. MATH 405, Numerical Analysis I (CS 405), 3 hours
- j. MATH 406, Numerical Analysis II, 3 hours
- k. MATH 415, Algebra and Number Theory, 3 hours
- l. MATH 417, Algebraic Systems, 3 hours
- m. MATH 423, Geometry II, 3 hours
- n. MATH 431, Intermediate Analysis I, 3 hours
- o. MATH 435, Partial Differential Equations, 3 hours
- p. MATH 439, Topology I, 3 hours
- q. MATH 450, Complex Variables, 3 hours
- r. MATH 470, Introduction to Operations Research, 3 hours
- s. MATH 482, Probability and Statistics II, 3 hours
- t. MATH 498, Senior Seminar, 3 hours

- 3. Proposal to Revise Course Prerequisites/Corequisites
  - a. MATH 183, Introductory Statistics, 3 hours

The consent agenda was accepted.

### **Action Items**

Hamburger/Cambell moved approval of the proposal to create a new course, MATH 306, Applied and Computational Linear Algebra. Motion passed.

Hamburger/Keeling moved approval of the proposal to revise a program, Ref. #629, Bachelor of Science in Computer Science. Motion passed.

Keeling/Hamburger moved approval of the proposal to revise a program, Ref. #534, Civil Engineering. Motion passed.

### **OTHER BUSINESS**

There was no other business. Meeting adjourned at 5:21 p.m.

**Ogden College of Science and Engineering  
Department of Engineering  
Proposal to Create a Temporary Course  
(Information Item)**

Contact Person: Joel Lenoir, joel.lenoir@wku.edu, 270-745-6858

**1. Identification of proposed course**

- 1.1 Course prefix (subject area) and number: ME332
- 1.2 Course title: Fluid Mechanics Laboratory
- 1.3 Abbreviated course title: Fluid Mechanics Laboratory
- 1.4 Credit hours: 1
- 1.5 Schedule type: B, Lab
- 1.6 Corequisites: ME330
- 1.7 Course description:

An applied laboratory in the modeling, prediction, and measurement of fluid mechanics components and systems. Emphasis will be placed on the preparation of engineering reports, uncertainty analysis, and the experimental design plan process. System level experiments will include fluid property measurements, pipe flow and turbomachinery characteristics.

**2. Rationale**

- 2.1 Reason for offering this course on a temporary basis:
- 2.2 This course divides of the topical coverage of the existing ME440 into two labs coupled to their respective engineering science courses. ME332 will be coupled in the spring semester to ME330. It will also retain some of the Design of Experiments Plan material from ME440. The offering provides the student with a direct linkage with ME330 and creates a more integrated and streamlined ME junior year in engineering laboratory practices. The course focuses on fluid mechanics and supports the ABET requirement of a balance to both stems of the curriculum.
- 2.3 Relationship of the proposed course to courses offered in other academic units: Similar laboratory course are offered at numerous institutions as standalone fluid mechanics laboratories. Other institutions couple a discrete laboratory course with a specific fluid mechanics engineering science lecture course. The structure of ME332 provides the latter with ample coverage of fluid mechanics applications and measurement systems in a controlled laboratory environment coupled with reinforcing lectures on laboratory relevant engineering science topics coincident with ME330. Additionally, it is unique in that instruction on the ME Program Design of Experiments plan is deployed which supports design validation activities in the student's senior capstone design experience.

**3. Description of proposed course**

- 3.1 Course content outline  
Design of Experiments Plan Topics:

- Experimental Planning
- Methods of Measurement
- Selection of Instrumentation
- Prediction of Uncertainty
- Analysis of Data and Results
- Estimation of Error
- Reporting of Experimental Results

List of Selected Experiments:

- Viscosity of a Fluid
- Fluid Flow Measurements
- Fluid Bernoulli Test Bed – Conservation of Energy
- Impact of a Jet – Momentum Transfer
- Hydrostatic Forces on Planar and Curved Surfaces
- Viscous Internal Flow – Laminar and Turbulent Regimes
- Pump Characteristics and Similarity
- Wind Tunnel (External Flow) - Lift and Drag Forces

3.2 Tentative text(s):

No required textbook. Laboratory handouts will be provided. Textbooks used in ME310 and ME330 will serve as reference sources for the course.

**4. Second offering of a temporary course (if applicable)**

- 4.1 Reason for offering this course a second time on a temporary basis:
- 4.2 Term course was first offered:
- 4.3 Enrollment in first offering:

**5. Term of Implementation:**

**6. Dates of review/approvals:**

_____ Department/Division:	_____
_____ Curriculum Committee	_____
_____ Dean	_____
UCC Chair	_____
Provost:	_____

**Attachment: Course Inventory Form**

Proposal Date: 9/23/2011

**Ogden College of Science and Engineering  
Department of Architectural & Manufacturing Sciences  
Proposal to Revise Course Corequisites  
(Consent Item)**

Contact Person: Laura Dotson, [laura.dotson@wku.edu](mailto:laura.dotson@wku.edu), 745-7083

**1. Identification of course:**

- 1.1 Course prefix (subject area) and number: AMS 261
- 1.2 Course title: Construction Methods and Materials
- 1.3 Credit hours: 3.0

**2. Current corequisites:**

Corequisite : AMS 262

**3. Proposed corequisites:**

None

**4. Rationale for the revision of corequisites:**

AMS 262 is complementary to AMS 261, but it does not need to be a corequisite.

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

N/A

**6. Proposed term for implementation :**

Spring 2012

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

AMS Department/Division: 23 September 2011

Ogden Curriculum Committee \_\_\_\_\_

Undergraduate Curriculum Committee \_\_\_\_\_

University Senate \_\_\_\_\_

**Attachment: Course Inventory Form**

Proposal Date: 9/23/2011

**Ogden College of Science and Engineering  
Department of Architectural & Manufacturing Sciences  
Proposal to Revise Course Corequisites  
(Consent Item)**

Contact Person: Laura Dotson, [laura.dotson@wku.edu](mailto:laura.dotson@wku.edu), 745-7083

**1. Identification of course:**

- 1.1 Course prefix (subject area) and number: AMS 262
- 1.2 Course title: Construction Laboratory
- 1.3 Credit hours: 1.0

**2. Current corequisites:**

Corequisite : AMS 261

**3. Proposed corequisites:**

None

**4. Rationale for the revision of corequisites:**

AMS 261 is complementary to AMS 262, but it does not need to be a corequisite.

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

N/A

**6. Proposed term for implementation :**

Spring 2012

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

AMS Department/Division: 23 September 2011

Ogden Curriculum Committee \_\_\_\_\_

Undergraduate Curriculum Committee \_\_\_\_\_

University Senate \_\_\_\_\_

**Attachment: Course Inventory Form**



Proposal Date: 10/28/11

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

Contact Person: Zhonghang Xia, [zhonghang.xia@wku.edu](mailto:zhonghang.xia@wku.edu), 745-6459

**1. Identification of course:**

- 1.1 Course prefix (subject area) and number: CS 239
- 1.2 Course title: Problem Solving with Computational Techniques
- 1.3 Credit hours: 3

**2. Current prerequisites:** Math 117 or higher

**3. Proposed prerequisites:** Math 117 with a grade of C or better or placement into a science calculus course.

**4. Rationale for the revision of prerequisites:**

In order to provide a uniform standard for prerequisites and to improve the chances of success for all students enrolling in CS 239, the faculty proposes that the phrase “with a grade of C or better” be added to the current prerequisite.

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

None

**6. Proposed term for implementation:** Fall 2012

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

Math and CS Department \_\_\_\_\_Nov. 10, 2011\_\_\_\_\_

Ogden College Curriculum Committee \_\_\_\_\_

University Curriculum Committee \_\_\_\_\_

University Senate \_\_\_\_\_

**Attachment: Course Inventory Form**

Proposal Date: 10/28/11

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

Contact Person: Zhonghang Xia, [zhonghang.xia@wku.edu](mailto:zhonghang.xia@wku.edu), 745-6459

**1. Identification of course:**

- 1.1 Course prefix (subject area) and number: CS 251
- 1.2 Course title: Introduction to Database
- 1.3 Credit hours: 3

**2. Current prerequisites:** CS 181

**3. Proposed prerequisites:** CS 181 with a grade of C or better

**4. Rationale for the revision of prerequisites:**

Currently, students majoring in computer science are required to earn a grade of C or better in each course listed as a prerequisite for another computer course. In order to provide a uniform standard for prerequisites and to improve the chances of success for all students enrolling in CS 251, the faculty proposes that the phrase “with a grade of C or better” be added to the current prerequisite.

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

None.

**6. Proposed term for implementation:** Fall 2012

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

Math and CS Department	___Nov. 10, 2011___
Ogden College Curriculum Committee	_____
University Curriculum Committee	_____
University Senate	_____

**Attachment: Course Inventory Form**

Proposal Date: 10/28/11

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

Contact Person: Zhonghang Xia, [zhonghang.xia@wku.edu](mailto:zhonghang.xia@wku.edu), 745-6459

**1. Identification of course:**

- 1.1 Course prefix (subject area) and number: CS 270
- 1.2 Course title: Introduction to Web Programming
- 1.3 Credit hours: 3

**2. Current prerequisites:** CS 146, or CS 170, or CS 180

**3. Proposed prerequisites:** CS 146, or CS 170, or CS 180 with grades of C or better

**4. Rationale for the revision of prerequisites:**

Currently, students majoring in computer science are required to earn a grade of C or better in each course listed as a prerequisite for another computer course. In order to provide a uniform standard for prerequisites and to improve the chances of success for all students enrolling in CS 270, the faculty proposes that the phrase “with grades of C or better” be added to the current prerequisite.

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

None.

**6. Proposed term for implementation:** Fall 2012

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

Math and CS Department \_\_\_\_\_Nov. 10, 2011\_\_

Ogden College Curriculum Committee \_\_\_\_\_

University Curriculum Committee \_\_\_\_\_

University Senate \_\_\_\_\_

**Attachment: Course Inventory Form**



Proposal Date: 10/28/11

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

Contact Person: Zhonghang Xia, [zhonghang.xia@wku.edu](mailto:zhonghang.xia@wku.edu), 745-6459

**1. Identification of course:**

- 1.1 Course prefix (subject area) and number: CS 370
- 1.2 Course title: XML and Web Programming
- 1.3 Credit hours: 3

**2. Current prerequisites: CS 270 & CS 280**

**3. Proposed prerequisites: CS 270 and CS 280 with grades of C or better**

**4. Rationale for the revision of prerequisites:**

Currently, students majoring in computer science are required to earn a grade of C or better in each course listed as a prerequisite for another computer course. In order to provide a uniform standard for prerequisites and to improve the chances of success for all students enrolling in CS 370, the faculty proposes that the phrase “with grades of C or better” be added to the current prerequisite.

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

None.

**6. Proposed term for implementation: Fall 2012**

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

Math and CS Department \_\_\_\_\_Nov. 10, 2011\_\_\_\_\_

Ogden College Curriculum Committee \_\_\_\_\_

University Curriculum Committee \_\_\_\_\_

University Senate \_\_\_\_\_

**Attachment: Course Inventory Form**









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

Contact Person: Vivian Moody, vivian.moody@wku.edu, 745-6209

**1. Identification of course:**

- 1.1 Course prefix (subject area) and number: MATH 304
- 1.2 Course title: Functions, Applications, and Explorations
- 1.3 Credit hours: 3

**2. Current prerequisites:**

Math 136

**3. Proposed prerequisites:**

Math 136 with a grade of C or better, or permission of instructor.

**4. Rationale for the revision of prerequisites:**

Although it is stated in the undergraduate catalog that students must obtain a grade of C or better in all mathematics courses in the major, the mathematics education faculty would like to implement a better means of tracking students' progress in the program. Further, it is extremely important to make it clear to all students that they may not continue in the program until satisfactory progress is made in each mathematics course in the major.

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

There is no effect on completion of major/minor sequence.

**6. Proposed term for implementation:**

Fall 2012

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

Department of Mathematics and Computer Science	November 11, 2011
OCSE Curriculum Committee	_____
Professional Education Council	_____
Undergraduate Curriculum Committee	_____
University Senate	_____

**Attachment: Course Inventory Form**

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

Contact Person: Vivian Moody, vivian.moody@wku.edu, 745-6209

**1. Identification of course:**

- 1.1 Course prefix (subject area) and number: MATH 421
- 1.2 Course title: Problem Solving for Secondary Teachers
- 1.3 Credit hours: 3

**2. Current prerequisites:**

Math 307 and 310; or Math 382 and 323; or permission of instructor.

**3. Proposed prerequisites:**

Math 307 and 310 both with grades of C or better; or Math 382 and 323 both with grades of C or better; or permission of instructor.

**4. Rationale for the revision of prerequisites:**

Although it is stated in the undergraduate catalog that students must obtain a grade of C or better in all mathematics courses in the major, the mathematics education faculty would like to implement a better means of tracking students' progress in the program. Further, it is extremely important to make it clear to all students that they may not continue in the program until satisfactory progress is made in each mathematics course in the major.

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

There is no effect on completion of major/minor sequence.

**6. Proposed term for implementation:**

Fall 2012

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

Department of Mathematics and Computer Science	November 11, 2011
OCSE Curriculum Committee	_____
Professional Education Council	_____
Undergraduate Curriculum Committee	_____
University Senate	_____

**Attachment: Course Inventory Form**

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

Contact Person: Vivian Moody, vivian.moody@wku.edu, 745-6209

**1. Identification of course:**

- 1.1 Course prefix (subject area) and number: MATH 423
- 1.2 Course title: Geometry II
- 1.3 Credit hours: 3

**2. Current prerequisites:**

Math 323

**3. Proposed prerequisites:**

Math 323 with a grade of C or better, or permission of instructor.

**4. Rationale for the revision of prerequisites:**

Although it is stated in the undergraduate catalog that students must obtain a grade of C or better in all mathematics courses in the major, the mathematics education faculty would like to implement a better means of tracking students' progress in the program. Further, it is extremely important to make it clear to all students that they may not continue in the program until satisfactory progress is made in each mathematics course in the major.

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

There is no effect on completion of major/minor sequence.

**6. Proposed term for implementation:**

Fall 2012

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

Department of Mathematics and Computer Science	November 11, 2011
OCSE Curriculum Committee	_____
Professional Education Council	_____
Undergraduate Curriculum Committee	_____
University Senate	_____

**Attachment: Course Inventory Form**

Proposal Date: 11/28/2011

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

Contact Person: Alexander Barzilov, [alexander.barzilov@wku.edu](mailto:alexander.barzilov@wku.edu) , 745-6194

**1. Identification of course:**

- 1.1 Course prefix (subject area) and number: PHYS 316
- 1.2 Course title: Computational Physics
- 1.3 Credit hours: 3.0

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

Prerequisite: PHYS 265 and CS 240.

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

Prerequisite: PHYS 265 or permission of instructor.

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

The focus in PHYS 316 is on using computers to solve physics problems. We use VB.NET in the course as a tool to provide students with an easy-to-learn yet powerful programming language to facilitate making models of physical systems and processes with the computer. Students have been able to master the programming requirements of VB.NET necessary for PHYS 316 with or without any prior CS course.

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

**6. Proposed term for implementation:** Fall 2012

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

Physics and Astronomy Department: \_\_\_\_\_11-16-2011\_\_\_\_\_

Ogden College Curriculum Committee: \_\_\_\_\_

Undergraduate Curriculum Committee: \_\_\_\_\_

University Senate \_\_\_\_\_

**Attachment: Course Inventory Form**

Proposal Date: 11/30/2011

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

Contact Person: Doug Harper, [doug.harper@wku.edu](mailto:doug.harper@wku.edu), 745-6194

**1. Identification of course:**

- 1.1 Course prefix (subject area) and number: PHYS 318
- 1.2 Course title: Data Acquisition Using LabVIEW
- 1.3 Credit hours: 3.0

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

Prerequisite: PHYS 265 and CS 240 or permission of instructor.

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

Prerequisite: PHYS 265 or permission of instructor.

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

The focus in PHYS 318 is on using computers to perform data acquisition tasks. We use LabVIEW in the course as a tool to provide students with an easy-to-learn yet powerful programming language to facilitate making measurements with the computer. Students have been able to master the programming requirements of LabVIEW needed for PHYS 318 with or without any prior CS course.

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

**6. Proposed term for implementation:** Fall 2012

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

Physics and Astronomy Department: \_\_\_\_\_11-16-2011\_\_\_\_\_

Ogden College Curriculum Committee: \_\_\_\_\_

Undergraduate Curriculum Committee: \_\_\_\_\_

University Senate \_\_\_\_\_

**Attachment: Course Inventory Form**

Proposal Date: 7 September 2011

**Ogden College of Science and Engineering  
Department of Biology  
Proposal to Suspend a Course  
(Consent Item)**

Contact Person: Scott A. Grubbs, [scott.grubbs@wku.edu](mailto:scott.grubbs@wku.edu), 745-5048

**1. Identification of course:**

- 1.1 Current course prefix (subject area) and number: BIOL 389
- 1.2 Course title: Cooperative Education in Biology II
- 1.3 Credit hours: 3

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

The current prerequisites for BIOL 369 (= Sophomore or junior standing) and BIOL 389 (Junior standing) overlap, providing students with little guidance or understanding of which co-op course in which to enroll. The catalog descriptions are also nearly identical with no logical or historical differentiation between these two courses. Students seeking a co-op/internship experience can do so solely through BIOL 369, making BIOL 389 duplicative and unnecessary.

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

None. This course is not required for any academic program across the university.

**4. Proposed term for implementation:** Fall 2012

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

Department of Biology: \_\_\_\_\_

OCSE Curriculum Committee: \_\_\_\_\_

Undergraduate Curriculum Committee: \_\_\_\_\_

University Senate: \_\_\_\_\_

**Attachment: Course Inventory Form**

Proposal Date: 7 September 2011

**Ogden College of Science and Engineering  
Department of Biology  
Proposal to Suspend a Course  
(Consent Item)**

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

**1. Identification of course:**

- 1.1 Current course prefix (subject area) and number: BIOL 469
- 1.2 Course title: Cooperative Education in Biology III
- 1.3 Credit hours: 3

**2. Rationale for the course suspension:** The two Biology majors, reference number 617 (= 36 hour major) and reference number 525 (= 48 hour major), allow for a maximum of three and six credits total, respectively, of co-op/internship coursework. Additionally, the Biology minor allows for only a maximum of three credits (369) of co-op/internship coursework. BIOL 469 has not been offered in at least 10 years and does not have an active place in the Biology curriculum.

**3. Effect of course suspension on programs or other departments, if known:** None. This course is not required for any academic program across the university.

**4. Proposed term for implementation:** Fall 2012

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

Department of Biology: \_\_\_\_\_

OCSE Curriculum Committee: \_\_\_\_\_

Undergraduate Curriculum Committee: \_\_\_\_\_

University Senate: \_\_\_\_\_

**Attachment: Course Inventory Form**

Proposal Date: 9/23/2011

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

Contact Person: Laura Dotson, [laura.dotson@wku.edu](mailto:laura.dotson@wku.edu), 745-7083

**1. Identification of program:**

- 1.1 Current program reference number: 518
- 1.2 Current program title: Architectural Science
- 1.3 Credit hours:83

**2. Identification of the proposed program changes:**

Remove the following courses from the major:

- AMS 120
- AMS 175
- 3 hours of Architectural electives

**3. Detailed program description:**

(Program Credit Hours)		128	120		
ARCHITECTURAL SCIENCE (OLD)		83	75	ARCHITECTURAL SCIENCE (NEW)	
<b>Basic Electricity</b>	<b>AMS 120</b>	<b>3</b>			
Intro to Occupational Safety	AMS 140	1	1	AMS 140	Intro to Occupational Safety
Architectural Graphics	AMS 151	3	3	AMS 151	Architectural Graphics
Architectural Drafting	AMS 163	3	3	AMS 163	Architectural Drafting
<b>University Experience/AMS</b>	<b>AMS 175</b>	<b>2</b>			
3D Modeling & Imaging	AMS 251	3	3	AMS 251	3D Modeling & Imaging
Construction Methods & Materials	AMS 261	3	3	AMS 261	Construction Methods & Materials
Construction Methods & Materials Lab	AMS 262	1	1	AMS 262	Construction Methods & Materials Lab
Architecture Documentation I	AMS 263	3	3	AMS 263	Architecture Documentation I
Architectural Detailing	AMS 273	3	3	AMS 273	Architectural Detailing
Architectural Structures	AMS 282	3	3	AMS 282	Architectural Structures
Building Codes	AMS 305	3	3	AMS 305	Building Codes
Survey of Building Systems	AMS 325	3	3	AMS 325	Survey of Building Systems
Architecture Documentation II	AMS 363	3	3	AMS 363	Architecture Documentation II
Architectural Design Studio I	AMS 369	4	4	AMS 369	Architectural Design Studio I
Quality Assurance	AMS 371	3	3	AMS 371	Quality Assurance



Project Management	AMS 390	3	3	AMS 390	Project Management
Internship I	AMS 398	1	1	AMS 398	Internship I
Tech Mgmt/ Supervision/Team Building	AMS 430	3	3	AMS 430	Tech Mgmt/ Supervision/Team Building
Architectural Documentation III	AMS 463	3	3	AMS 463	Architectural Documentation III
Architectural Design Studio II	AMS 469	4	4	AMS 469	Architectural Design Studio II
Comprehensive Design	AMS 488	3	3	AMS 488	Comprehensive Design
Senior Research	AMS 490	3	3	AMS 490	Senior Research
Construction Mgmt.	CE 303	3	3	CE 303	Construction Mgmt.
Construction Mgmt. Lab	CE 304	1	1	CE 304	Construction Mgmt. Lab
Business Writing or Technical Writing	ENG 306 ENG 307	3	3	ENG 306 ENG 307	Business Writing or Technical Writing
<b>Architectural Sciences Electives - Advisor Approved</b>		<b>9</b>	<b>6</b>		<b>Architectural Sciences Electives - Advisor Approved</b>
Management Elective - Advisor Approved		3	3		Management Elective - Advisor Approved
<b>GENERAL EDUCATION</b>		<b>45</b>	<b>45</b>	<b>GENERAL EDUCATION</b>	
<b>Category A</b>			<b>Category A</b>		
Freshman English	ENG 100	3	3	ENG 100	Freshman English
Junior English	ENG 300	3	3	ENG 300	Junior English
Foreign Language Elective	A II Elective	3	3	For. Lang.	Foreign Language Elective
Public Speaking Elective	COMM 145/161	3	3	COMM 145/161	Public Speaking Elective
<b>Category B</b>			<b>Category B</b>		
Introduction to Literature	ENG 200	3	3	ENG 200	Introduction to Literature
Architecture & Civilization	AMS 180	3	3	AMS 180	Architecture & Civilization
Elective	B II Elective	3	3	B II Elective	Elective
<b>Category C</b>			<b>Category C</b>		
Western Civilization	HIST 119/120	3	3	HIST 119/120	Western Civilization
Principles of Econ (Micro)	ECON 202	3	3	ECON 202	Principles of Econ (Micro)
Elective	C Elective	3	3	C Elective	Elective
<b>Category D</b>			<b>Category D</b>		
Trigonometry	MATH 117	3	3	MATH 117	Trigonometry
College Physics I	PHYS 201	4	4	PHYS 201	College Physics I
Elective	D Elective	3	3	D Elective	Elective
<b>Category E</b>			<b>Category E</b>		

Elective	E Elective	3	3	E Elective	Elective
Category F			Category F		
Safety and First Aid	SFTY 171	1	1	SFTY 171	Safety and First Aid
Elective	F Elective	1	1	F Elective	Elective

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

These courses are being removed from the major to reduce the number of hours in the program to 120, in compliance with university guidelines.

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

Fall 2012

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

AMS Department/Division: 23 September 2011

Ogden Curriculum Committee \_\_\_\_\_

Undergraduate Curriculum Committee \_\_\_\_\_

University Senate \_\_\_\_\_

**Attachment: Program Inventory Form**

Proposal Date: 7 September 2011

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

Contact Person: Scott A. Grubbs, [scott.grubbs@wku.edu](mailto:scott.grubbs@wku.edu), 745-5048

**1. Identification of course:**

- 1.1 Current course prefix (subject area) and number: BIOL 369
- 1.2 Course title: Cooperative Education in Biology I
- 1.3 Credit hours: 3

**4. Revise course prerequisites:**

- 4.1 Current prerequisites: Sophomore or junior standing
- 4.2 Proposed prerequisites: BIOL 120/121 and BIOL 122/123 with a grade of “C” or higher and consent of instructor
- 4.3 Rationale for revision of course prerequisites: The existing prerequisites for BIOL 369, “Sophomore or junior standing”, does not specify that an undergraduate student should have at least freshman-level Biology majors coursework prior to enrolling in an upper division course. The sequence BIOL 120/121 and BIOL 122/123 is required for both Biology majors and the Biology minor prior to enrollment in all subsequent majors courses. This is a reasonable expectation for students wishing to enroll in BIOL 369. Moreover, the requirement of a minimum letter grade of “C” for both lecture-lab sequences is an additional means that the external co-op/internship entity receives a student who has performed at least adequately in the foundation courses.
- 4.4 Effect on completion of major/minor sequence: No effect

**5. Revise course catalog listing:**

- 5.1 Current course catalog listing: Practical out-of-classroom experience in a supervised work situation with a cooperating business, industry, or government agency, emphasizing application of knowledge and skills in specific areas of biology.
- 5.2 Proposed course catalog listing: Practical out-of-classroom experience in a supervised work or research environment with a cooperating business, industry, government agency or laboratory, emphasizing application of knowledge and skills in specific areas of biology.
- 5.3 Rationale for revision of course catalog listing: Internships can be designed as either academic (i.e., conducting research in a laboratory setting of a different institution or facility) or experiential (e.g., industry). The Biology Department simply wants to clarify that an internship can be performed at an external research laboratory or facility.

**6. Revise course credit hours:**

- 6.1 Current course credit hours: 3
- 6.2 Proposed course credit hours: 1–3
- 6.3 Rationale for revision of course credit hours: The proposed change allows students greater flexibility to participate in experiences of varying duration, projects, and with different entities.

**7. Proposed term for implementation:** Fall 2012

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

Department of Biology: \_\_\_\_\_

OCSE Curriculum Committee: \_\_\_\_\_

Undergraduate Curriculum Committee: \_\_\_\_\_

University Senate: \_\_\_\_\_

**Attachment: Course Inventory Form**

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

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

**1. Identification of program:**

- 1.1 Current program reference number: 525
- 1.2 Current program title: Major in Biology (without a minor)
- 1.3 Credit hours: 48.0

**2. Identification of the proposed program changes:**

- Elimination of BIOL 389 as an Biology elective option

**3. Detailed program description:**

Current:

This option for a major in biology (reference number 617) requires a minimum of 36 hours in biology with 18 hours at the 300 level or higher plus the requirements of a minor area. The major-minor area must be at least 54 semester hours. All students are required to complete BIOL 120-121 and BIOL 122-123, and at least one course from each of the following three groups: (A) BIOL 222-223 or BIOL 224-225 or BIOL 226-227 (B) BIOL 319 & 322 or BIOL 327 (C) BIOL 315 or BIOL 430. Students with the aid of their advisor, select additional 300- and 400-level courses to focus their studies on specific areas within biology. Because an understanding of the principles of mathematics, physics and chemistry is essential to the study of biology, majors are required to complete supporting courses as follows: (1) MATH 116 & 117 or MATH 118 or higher, (2) PHYS 231-232 or 255-256, (3) CHEM 120-121 and (4) 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 343, CIS 226 or CS 226 or

Proposed:

This option for a major in biology (reference number 617) requires a minimum of 36 hours in biology with 18 hours at the 300 level or higher plus the requirements of a minor area. The major-minor area must be at least 54 semester hours. All students are required to complete BIOL 120-121 and BIOL 122-123, and at least one course from each of the following three groups: (A) BIOL 222-223 or BIOL 224-225 or BIOL 226-227 (B) BIOL 319 & 322 or BIOL 327 (C) BIOL 315 or BIOL 430. Students with the aid of their advisor, select additional 300- and 400-level courses to focus their studies on specific areas within biology. Because an understanding of the principles of mathematics, physics and chemistry is essential to the study of biology, majors are required to complete supporting courses as follows: (1) MATH 116 & 117 or MATH 118 or higher, (2) PHYS 231-232 or 255-256, (3) CHEM 120-121, and (4) 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 343, CIS 226 or CS 226 or

CS 230, GEOG 317, GEOG 328, GEOG 416, 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 BIOL 369, 389, or 399 and up to 4 credit hours of BIOL 485 toward this major.

CS 230, GEOG 317, GEOG 328, GEOG 416, 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.

- 4. **Rationale for the proposed program change:** BIOL 389 will be suspended indefinitely effective the Fall 2012 semester and will no longer be a Biology elective option.
- 5. **Proposed term for implementation and special provisions (if applicable):** Fall 2012
- 6. **Dates of prior committee approvals:**

Department of Biology: \_\_\_\_\_

OCSE Curriculum Committee: \_\_\_\_\_

Professional Education Council: \_\_\_\_\_

Undergraduate Curriculum Committee: \_\_\_\_\_

University Senate: \_\_\_\_\_

**Attachment: Program Inventory Form**

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

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

**1. Identification of program:**

- 1.1 Current program reference number: 617
- 1.2 Current program title: Major in Biology (with a minor)
- 1.3 Credit hours: 36.0

**2. Identification of the proposed program changes:**

- Elimination of BIOL 389 as an Biology elective option

**3. Detailed program description:**

Current:

This option for a major in biology (reference number 617) requires a minimum of 36 hours in biology with 18 hours at the 300 level or higher plus the requirements of a minor area. The major-minor area must be at least 54 semester hours. All students are required to complete BIOL 120-121 and BIOL 122-123, and at least one course from each of the following three groups: (A) BIOL 222-223 or BIOL 224-225 or BIOL 226-227 (B) BIOL 319 & 322 or BIOL 327 (C) BIOL 315 or BIOL 430. Students with the aid of their advisor, select additional 300- and 400-level courses to focus their studies on specific areas within biology. Because an understanding of the principles of mathematics, physics and chemistry is essential to the study of biology, majors are required to complete supporting courses as follows: (1) MATH 116 & 117 or MATH 118 or higher, (2) PHYS 231-232 or 255-256, (3) CHEM 120-121 and (4) 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 343, CIS 226 or CS 226 or

Proposed:

This option for a major in biology (reference number 617) requires a minimum of 36 hours in biology with 18 hours at the 300 level or higher plus the requirements of a minor area. The major-minor area must be at least 54 semester hours. All students are required to complete BIOL 120-121 and BIOL 122-123, and at least one course from each of the following three groups: (A) BIOL 222-223 or BIOL 224-225 or BIOL 226-227 (B) BIOL 319 & 322 or BIOL 327 (C) BIOL 315 or BIOL 430. Students with the aid of their advisor, select additional 300- and 400-level courses to focus their studies on specific areas within biology. Because an understanding of the principles of mathematics, physics and chemistry is essential to the study of biology, majors are required to complete supporting courses as follows: (1) MATH 116 & 117 or MATH 118 or higher, (2) PHYS 231-232 or 255-256, (3) CHEM 120-121, and (4) 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 343, CIS 226 or CS 226 or

CS 230, GEOG 317, GEOG 328, GEOG 416, 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 3 credit hours of BIOL 369, 389, or 399 and up to 4 credit hours of BIOL 485 toward this major.

CS 230, GEOG 317, GEOG 328, GEOG 416, 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 3 credit hours of **a combination of BIOL 369 and/or 399** and up to 4 credit hours of BIOL 485 toward this major.

- 4. **Rationale for the proposed program change:** BIOL 389 will be suspended indefinitely effective the Fall 2012 semester and will no longer be a Biology elective option.
- 5. **Proposed term for implementation and special provisions (if applicable):** Fall 2012
- 6. **Dates of prior committee approvals:**

Department of Biology: \_\_\_\_\_

OCSE Curriculum Committee: \_\_\_\_\_

Professional Education Council: \_\_\_\_\_

Undergraduate Curriculum Committee: \_\_\_\_\_

University Senate: \_\_\_\_\_

**Attachment: Program Inventory Form**