**Ogden College of Science and Engineering**

**Office of the Dean**

**745-4449**

**REPORT TO THE UNIVERSITY CURRICULUM COMMITTEE**

Date: October 14, 2011

The Ogden College of Science and Engineering submits the following information and consent items for consideration:

1. New Business

|  |  |
| --- | --- |
| **Type of item** | **Description of Item & Contact Information** |
| Information | **Create a Temporary Course**  BIOL 345, Fire Ecology and Management  Contact: Albert Meier, [albert.meier@wku.edu](mailto:albert.meier@wku.edu), x53696 |
| Information | **Create a Temporary Course**  BIOL 457, Herpetology  Contact: Jarrett Johnson, [Jarrett.johnson@wku.edu](mailto:Jarrett.johnson@wku.edu), x56032 |
| Information | **Create a Temporary Course**  MATH 498, Senior Seminar  Contact: Mark Robinson, [mark.robinson@wku.edu](mailto:mark.robinson@wku.edu), x56223 |
| Consent | **Revise Course Prerequisites**  EE 380, Microprocessors  Contact: Mark Cambron, [mark.cambron@wku.edu](mailto:mark.cambron@wku.edu), x58868 |
| Consent | **Revise Course Prerequisites/Corequisites**  EE 210, Circuits and Networks I  Contact: Mark Cambron, [mark.cambron@wku.edu](mailto:mark.cambron@wku.edu), x58868 |
| Consent | **Revise Course Prerequisites/Corequisites**  EE 473, Introduction to Electromagnetic Fields and Waves  Contact: Mark Cambron, [mark.cambron@wku.edu](mailto:mark.cambron@wku.edu), x58868 |
| Consent | **Revise Course Title**  AMS 301, Science of Food Processing  Contact: John Khouryieh, [hanna.khouryieh@wku.edu](mailto:hanna.khouryieh@wku.edu), 270-852-6407 |

Proposal Date: 29 September 2011

**Ogden College of Science and Engineering**

**Department of Biology**

**Proposal to Create a Temporary Course**

**(Information Item)**

Contact Person: Albert Meier, [albert.meier@wku.edu](mailto:albert.meier@wku.edu), 745-3696

1. **Identification of proposed course**
   1. Course prefix (subject area) and number: BIOL 345
   2. Course title: Fire Ecology and Management
   3. Abbreviated course title: Fire Management
   4. Credit hours: 1
   5. Schedule type: A
   6. Prerequisites: BIOL 120/121 and 122/123 or consent of instructor
   7. Course description: The behavior and management of prescribed fires and wildland fires.
2. **Rationale**
   1. Reason for offering this course on a temporary basis:

The Biology Department has taught this course previously under a BIOL 475 heading, but now wishes to give this class its own identity for the January 2012 term. This course is taught in collaboration with Mammoth Cave National Park and provides valuable job training and opportunities for students.

* 1. Relationship of the proposed course to courses offered in other academic units: There are no courses offered at WKU that address wildland fire management.

1. **Description of proposed course**
   1. Course content outline:
2. Fire behavior

* Fuel characteristics
* Weather conditions
* Topographical characteristics
* Fire burn patterns

1. Fire ecology
2. Firefighter training

* Preparedness
* Resource types
* Risk management
* Tools
* Suppression
* Investigation
  1. Tentative text(s):
* Common Denominators of Fire behavior on Tragedy and Near-miss Wildland Fires. 1996. National Wildfire Coordinating Group. PMS 407, NFES 2225. Boise, ID.
* Firefighter Training S-130, Student Workbook. 2003. National Wildfire Coordinating Group. NFES 2730. Boise, ID.
* Fireline Handbook. 2004. National Wildfire Coordinating Group. NWCG Handbook 3, PMS 410-1, NFES 0065. Boise, ID.

1. **Term of Implementation:** January 2012
2. **Dates of review/approvals:**

BiologyDepartment Head: 29 September 2011

Ogden College Dean: October 4, 2011

Provost: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Attachment: Course Inventory Form**

Proposal Date: 22 August 2011

**Ogden College of Science and Engineering**

**Department of Biology**

**Proposal to Create a Temporary Course**

**(Information Item)**

Contact Person: Jarrett Johnson, [jarrett.johnson@wku.edu](mailto:jarrett.johnson@wku.edu), 745-6032

**1. Identification of proposed course**

* 1. Course prefix (subject area) and number: BIOL 457
  2. Course title: Herpetology
  3. Abbreviated course title: Herpetology
  4. Credit hours: 4
  5. Schedule type: C
  6. Prerequisites: BIOL 224/225 with a grade of “C” (or higher) or consent of instructor
  7. Course description: The diversity, biology, and conservation of reptiles and amphibians.

**2. Rationale**

* 1. Reason for offering this course on a temporary basis:

A course in herpetology was taught in the WKU Biology Department during the 1970s, and a new faculty member with expertise in the field is anxious to offer such a course during the Spring 2012 semester.  To accommodate registration, there is insufficient time to complete the new course approval process.  Hence, the department seeks one-time approval for the temporary course. This course is intended to be later developed as a new, regular offering.

* 1. Relationship of the proposed course to courses offered in other academic units: GEOL 405 (Paleontology) provides a comprehensive overview of the nature of the fossil record with particular emphasis on invertebrates. The proposed course begins with an overview of the evolution of vertebrates (fish, amphibians, mammals, reptiles, and birds) but focus mainly on the diversity, biology, and conservation of reptiles and amphibians

**3. Description of proposed course**

3.1 Course content outline:

Lecture

* Introduction to herpetology
* Concepts in systematics and evolution of Tetrapoda
* Evolution of Amniotes and major features of living amphibians
* Amphibian diversity
* Major features of living reptiles and reptile diversity
* Problems in phylogeny
* Life histories
* Reproduction and mating systems
* Osmoregulation and thermoregulation
* Locomotion, orientation and movement
* Communication and foraging ecology
* Defense
* Population ecology and phylogeography
* Conservation of amphibians and reptiles

Lab

* Salamander diversity
* Salamanders of Kentucky
* Frog diversity
* Frogs of Kentucky
* Amphibian field trip
* Turtle diversity
* Turtles of Kentucky
* Lizard diversity
* Lizards of Kentucky
* Snake diversity
* Snakes of Kentucky
* Reptile field trip

3.2 Tentative text(s):

* Herpetology by Vitt and Caldwell (2008, 3rd Edition), and
* A Field Guide to Reptiles & Amphibians of Eastern & Central North America by Conant and Collins (1998, 3rd Edition)

**4. Term of Implementation:** January 2012

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

BiologyDepartment Head: 16 September 2011

Ogden College Dean: October 4, 2011

Provost: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Attachment: Course Inventory Form**

Proposal Date: 10/10/11

**Ogden College of Science and Engineering**

**Department of Mathematics and Computer Science**

**Proposal to Create a Temporary Course**

**(Information Item)**

Contact Person: Mark Robinson, [mark.robinson@wku.edu](mailto:mark.robinson@wku.edu), 745-6223

**1. Identification of proposed course**

* 1. Course prefix (subject area) and number: MATH 498
  2. Course title: Senior Seminar
  3. Abbreviated course title: Senior Seminar
  4. Credit hours: 1-3
  5. Schedule type: I (Independent Study) or S (Seminar)
  6. Prerequisites: MATH 237 and MATH 317 and senior standing or permission of instructor. Recommended prerequisite: MATH 398.
  7. Course description: Students will study articles in current mathematical journals or undertake independent investigations in mathematics. Written and oral presentations are required.

**2. Rationale**

* 1. Reason for offering this course on a temporary basis:

MATH 498 is the existing Senior Seminar class for mathematics majors. Due to the unusual circumstances and because there is no separate form for a temporary change in credit hours, upon the recommendation of the University Registrar, a Temporary Course Proposal form (accompanied by a Course Revisions inventory form) is being submitted to allow for a change to a variable-credit-hour format in time for preregistration for the Spring 2012 semester, while a formal course proposal to permanently change the credit hours to variable is making its way through the university approval process. This is a corrective action that is necessary in order to resolve various difficulties in the completion of programs of mathematics majors that have arisen as a result of the recent change in credit hours of MATH 498 from 1 to 3 and its differential effect on students under different calendar years.

MATH 498 was originally 1 credit hour. Effective Spring 2012, the number of credit hours for MATH 498 increased to 3 at the same time that the number of hours in the each of the mathematics major programs that require it was increased as part of the program revision process. However, for students entering prior to this year, students were required to have at least six hours of mathematics courses at the 400-level. Since MATH 498 was only one credit hour, students had to take two other math 400-level courses. With the change from one to three credit hours, students entering prior to this year can now graduate with MATH 498 plus just one more course at 400-level, because this will give them the 6 hours they need. This was not the original intent of the program. Furthermore, some of these students were planning on taking the course as a one-credit class. By changing it to three credits, some of these students will be over the maximum allowable credit hours in a semester potentially affecting their graduation date. Allowing MATH 498 to be a variable credit-hour course will ensure that the students entering prior to fall 2011 can graduate with their intended program without affecting their date of graduation. With variable credit hours available, both a 1-credit section and a 3-credit section of MATH 498 can be offered in a given semester, with each student enrolling in the section that is appropriate to his or her program. If the catalog year is 2010 or earlier the student will receive one credit hour and students with the catalog year 2011 and after will receive 3 credit hours.

A formal proposal for variable credit hours has been started through the university approval process, but there is not time for it to be approved in time for preregistration for the Spring 2012 semester, which is the reason this temporary change proposal is being submitted.

* 1. Relationship of the proposed course to courses offered in other academic units: NA

**3. Description of proposed course**

3.1 Course content outline: This is an existing course, with content as described in the course description.

3.2 Tentative text(s): NA

**4. Term of Implementation:** Spring 2012

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

Department of Mathematics and Computer Science \_\_\_\_\_10/13/11\_\_\_\_\_\_\_\_

Ogden College Curriculum Committee \_\_\_\_\_10/13/11\_\_\_\_\_\_\_\_

Ogden College Dean \_\_\_\_\_10/13/11\_\_\_\_\_\_\_\_

UCC Chair \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Provost: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Attachment: Course Inventory Form**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | Proposal Date: | | | | 08/20/11 | |
| **Ogden College of Science and Engineering**  **Department of Engineering**  **Proposal to Revise Course Prerequisites**  **(Consent Item)**  Contact Person: Mark Cambron [mark.cambron@wku.edu](mailto:mark.cambron@wku.edu) 745-8868 | | | | | | | | | |
|  |  | | | | | | | | |
| **1.** | **Identification of course** | | | | | | | | |
|  | 1.1  1.2  1.3 | Course prefix (subject area) and number:  Title:  Credit hours: | | | EE 380  Microprocessors  4.0 | | | | |
|  |  | | | |  | | | | |
| **2.** | **Current prerequisites:** | | | | EE 180, EE 210, and CS 239 | | | | |
|  |  | | | |  | | | | |
| **3.** | **Proposed prerequisites:** | | | | EE 180 (C or better), EE 210 and  CS 239 (C or better) | | | | |
|  |  | | | | | | | | |
| **4.** | **Rationale for the revision of course prerequisites**: A “C” or better in EE 180 and CS 239 will better prepare students for EE 380. | | | | | | | | |
|  |  | | | | | | | | |
| **5.** | **Effect on completion of major/minor sequence:** none | | | | | | | | |
|  |  | | | | | | | | |
| **6.** | **Proposed term for implementation:** Spring 2012 | | | | | | | | |
|  |  | | | | |  |  | | |
| **7.** | **Dates of prior committee approvals:** | | | | |  |  | | |
|  |  | | Department of Engineering | | | **13 September 2011** | | |  |
|  |  | | Ogden College Curriculum Committee | | | **13 October 2011** | | |  |
|  |  | | University Curriculum Committee | | |  | | |  |
|  |  | | University Senate | | |  | | |  |
| Attachment: Course Inventory Form | | | | | |  | | | |

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|  | | | | Proposal Date: | | | | 08/20/11 | |
| **College of Science and Engineering**  **Department of Engineering**  **Proposal to Revise Course Prerequisites/Corequisites**  **(Consent Item)**  Contact Person: Mark Cambron, [mark.cambron@wku.edu](mailto:mark.cambron@wku.edu) 745-8868 | | | | | | | | | |
|  |  | | | | | | | | |
| **1.** | **Identification of course** | | | | | | | | |
|  | 1.1  1.2  1.3 | Course prefix (subject area) and number:  Title:  Credit hours: | | | EE 210  Circuits and Networks I  3.5 | | | | |
|  |  | | | |  | | | | |
| **2.** | **Current prerequisite:**  **Current corequisite:** | | | | Math 137  Physics 265 | | | | |
|  |  | | | |  | | | | |
| **3.** | **Proposed prerequisite:**  **Proposed prerequisites or corequisites:** | | | | Math 137 (C or better)  Physics 265 | | | | |
|  |  | | | | | | | | |
| **4.** | **Rationale for the revision of course prerequisites/corequisites**: PHYS 265 is being changed from a corequisite to a prerequisites or corequisite. A “C” or better in MATH 137 will better prepare students for EE 210. | | | | | | | | |
|  |  | | | | | | | | |
| **5.** | **Effect on completion of major/minor sequence:** No effect | | | | | | | | |
|  |  | | | | | | | | |
| **6.** | **Proposed term for implementation:** Spring 2012 | | | | | | | | |
|  |  | | | | |  |  | | |
| **7.** | **Dates of prior committee approvals:** | | | | |  |  | | |
|  |  | | Department of Engineering | | | **13 September 2011** | | |  |
|  |  | | Ogden College Curriculum Committee | | | **13October 2011** | | |  |
|  |  | | University Curriculum Committee | | |  | | |  |
|  |  | | University Senate | | |  | | |  |
| Attachment: Course Inventory Form | | | | | |  | | | |

Proposal Date: 8/20/2011

**Ogden College of Science and Engineering**

**Department of Engineering**

**Proposal to Revise Course Prerequisites/Corequisites**

**(Consent Item)**

Contact Person: Mark E. Cambron, [mark.cambron@wku.edu](mailto:mark.cambron@wku.edu), 270-745-8868

**1. Identification of course:**

* 1. Course prefix (subject area) and number: EE 473
  2. Course title: Introduction to Electromagnetic Fields and Waves
  3. Credit hours: 3.0

**2. Current prerequisites:** MATH 237, MATH 331 and PHYS 265

**Current corequisites:** none

**3. Proposed prerequisites:** MATH 237, MATH 331 and

PHYS 265 (C or better)

**Proposed corequisites:** none

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

A “C” or better in PHYS 265 will better prepare students for EE 473.

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

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

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

EngineeringDepartment: \_13 September 2011\_\_

Ogden College Curriculum Committee \_13 October 2011 \_\_

Undergraduate Curriculum Committee \_ \_\_

University Senate \_ \_\_

**Attachment: Course Inventory Form**

Proposal Date: 08/17/2011

**Ogden College of Science & Engineering**

**Department of Architectural & Manufacturing Sciences**

**Proposal to Revise Course Title**

**(Consent Item)**

Contact Person: John Khouryieh, email: [hanna.khouryieh@wku.edu](mailto:hanna.khouryieh@wku.edu) , phone: 270-852-6407

**1. Identification of course:**

* 1. Current course prefix (subject area) and number: AMS 301
  2. Current course title: Science of Food Processing
  3. Credit hours: 3

**2. Proposed course title: Introduction to Food Science and Technology**

**3. Proposed abbreviated course title: Intro to Food Sci & Technology**

**(max. of 30 characters including spaces)**

**4. Rationale for the revision of course title:** this course is the foundation course in the food processing and technology concentration. Its primary goal is to introduce students to the basics concepts of food science and technology, not to the science of food processing. The current course title contradicts with other food processing courses. Students need to be taught the science of food in this course, not the science of food processing. We already have two courses focusing on the principles of food processing (AMS352 and AMS462).

**5. Proposed term for implementation: Spring 2012**

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

**AMS** Department/Division: September 9, 2011\_\_\_

**OCSE** Curriculum Committee \_October 13, 2011\_\_\_\_

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

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

**Attachment: Course Inventory Form**