**Ogden College of Science and Engineering**

**Office of the Dean**

**745-4449**

**REPORT TO THE UNIVERSITY CURRICULUM COMMITTEE**

Date: April 15, 2014

The Ogden College of Science and Engineering submits the following action items for consideration at the April 2014, UCC meeting:

1. New Business

|  |  |
| --- | --- |
| **Type of item** | **Description of Item & Contact Information** |
| Action | **Proposal to Create a New Course**  AGRI 323, Wine Fundamentals, 3 hrs.  Contact: Todd Willian, [todd.willian@wku.edu](mailto:todd.willian@wku.edu), x5969 |
| Action | **Proposal to Revise a Program**  Civil Engineering – Prep, Ref. 534P, 38 or 39 hrs.  Contact: Shane Palmquist, [shane.palmquist@wku.edu](mailto:shane.palmquist@wku.edu), x 2919 |
| Action | **Proposal to Revise a Program**  Civil Engineering, Ref. 534, 67 hrs.  Contact: Shane Palmquist, [shane.palmquist@wku.edu](mailto:shane.palmquist@wku.edu) , x 2919 |

Proposal Date: March 6, 2014

**Ogden College of Science and Engineering**

**Department of Agriculture**

**Proposal to Create a New Course**

**(Action Item)**

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

**1.** **Identification of proposed course:**

* 1. Course prefix (subject area) and number: AGRI 323
  2. Course title: Wine Fundamentals
  3. Abbreviated course title: Wine Fundamentals
  4. Credit hours: 3 Variable credit (yes or no) No
  5. Grade type: Standard letter grade
  6. Prerequisites/corequisites: Must be at least 21 years old
  7. Course description: Historical and agricultural origins of wine, including important grape varietals and principles of fermentation. Major wine-producing regions and fundamentals of wine marketing are also explored.

**2. Rationale:**

* 1. Reason for developing the proposed course: This course complements the educational experience from the vineyard (HORT 426) to include the winemaking process. Wine production is currently a growing agribusiness in the Commonwealth; licensed wineries have increased four-fold in the past 15 years.
  2. Projected enrollment in the proposed course:

Approximately 20 per semester based upon enrollment in two previous temporary course offerings. A majority of the temporary course enrollments have been students from outside the Department of Agriculture.

* 1. Relationship of the proposed course to courses now offered by the department:

The proposed course will supplement Viticulture (HORT 426), which explores grape production techniques in detail, thus completing the grape/wine linkage.

* 1. Relationship of the proposed course to courses offered in other departments:

The Department of History offers HIST 341 (A Cultural History of Alcohol) and Geology/Geography has offered GEOG 475 (Geography of Wine). Both courses complement rather than duplicate AGRI 323 topics. Historical and geographical perspectives are components of the learning objectives of AGRI 323 but are not inclusive of the broad scope of the course.

* 1. Relationship of the proposed course to courses offered in other institutions:

Many institutions offer similar courses. Comparable courses include: HORT 59000 – Commercial Grape and Wine Production, Purdue University; GEN 300 – Wine Appreciation, University of Kentucky; and HADM 4300 - Introduction to Wines, Cornell University.

**3. Discussion of proposed course:**

* 1. Schedule type: L - Lecture
  2. Learning Outcomes: Upon completion of this course students will have gained:
* An historical overview of global and domestic wine production.
* Theoretical and hands-on experiences with various stages of wine production, including the process of fermentation.
* Recognition of the importance of wine in national and international economies.
* An overview of important wine varietals and their primary geographical centers of production.
* Understanding of the fundamentals of wine sales, including branding, marketing, importation, and distribution.
  1. Content outline:
* The history of wine and winemaking
* The geography of wine and winegrape varietals
* Winemaking styles and strategies
* Interpreting wine labels
* The processes of fermentation and malolactic fermentation
* The influence of geological formations upon wine chemistry and taste
* Wine branding and marketing
* Wine importation and distribution
* The Kentucky wine industry
* Selecting wine at a retail outlet and at a restaurant
  1. Student expectations and requirements:

Assigned readings, examinations and quizzes, and writing assignments. Individual and/or group presentations may be assigned.

* 1. Tentative texts and course materials:

Zraly, K. (2009). Windows on the World Complete Wine Course. Sterling Press, 338 p.

Robinson, J. (2006). The Oxford Companion to Wine, 3rd edition. Oxford University Press, 840 p.

**4. Resources:**

* 1. Library resources: See attached Library Resource Form and Bibliography
  2. Computer resources: Adequate

**5. Budget implications:**

* 1. Proposed method of staffing: Part-time Instructor.
  2. Special equipment needed: None.
  3. Expendable materials needed: None.
  4. Laboratory materials needed: None.

**6. Proposed term for implementation: Spring 2015**

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

|  |  |
| --- | --- |
| Department of Agriculture | March 6, 2014 |
| OCSE Curriculum Committee | **April 4, 2014** |
| NA |  |
| NA |  |
| Undergraduate Curriculum Committee |  |
| University Senate |  |

Proposal Date: 2/10/14

**Ogden College of Science and Engineering**

**Department of Engineering**

**Proposal to Revise A Program**

**(Action Item)**

Contact Person: Shane M. Palmquist, [shane.palmquist@wku.edu](mailto:shane.palmquist@wku.edu), 745-2919

**1. Identification of program:**

* 1. Current program reference number: 534P
  2. Current program title: Civil Engineering-Prep
  3. Current credit hours: 35

Proposed credit hours: 38 or 39

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

* Require that students must complete MATH 237 Multivariable Calculus (4 hrs) or MATH 331 Differential Equations (3 hrs) with a grade of “C” or better.
* Increase the number of credit hours in the pre-major program from 35 to 38 or 39.

**3. Detailed program description:**

The existing statement in the undergraduate catalog is:

To transition from pre-major to major and to graduate with a degree in civil engineering, students must complete each of the following courses and labs with a grade of “C” or better: CE 176, AMS 163, ENG 100, CE 160 and 161, EM 221 or 222, COMM 145 or 161, MATH 136 and 137, PHYS 255 and 256, and CHEM 120 and 121.

The proposed statement in the undergraduate catalog is:

To transition from pre-major to major and to graduate with a degree in civil engineering, students must complete each of the following courses and labs with a grade of “C” or better: CE 176, AMS 163, ENG 100, CE 160 and 161, EM 221 or 222, COMM 145 or 161, MATH 136 and 137, MATH 237 or 331, PHYS 255 and 256, and CHEM 120 and 121.

For a side by side comparison, see the next page.

|  |  |  |  |
| --- | --- | --- | --- |
| **Current Program Courses** | **Hrs** | **Proposed Program Courses** | **Hrs** |
| CE 176 Civil Engineering Freshman  Design | 1 | CE 176 Civil Engineering Freshman  Design | 1 |
| AMS 163 Architectural Drafting | 3 | AMS 163 Architectural Drafting | 3 |
| MATH 136 Calculus I | 4 | MATH 136 Calculus I | 4 |
| MATH 137 Calculus II | 4 | MATH 137 Calculus II | 4 |
|  |  | **MATH 237 Multivariable Calculus**  **or**  **MATH 331 Differential Equations** | **4 or 3** |
| CE 160 Principles of Surveying | 3 | CE 160 Principles of Surveying | 3 |
| CE 161 Principles of Surveying Lab | 1 | CE 161 Principles of Surveying Lab | 1 |
| ENG 100 Freshman English | 3 | ENG 100 Freshman English | 3 |
| PHYS 255 University Physics I | 4 | PHYS 255 University Physics I | 4 |
| PHYS 256 University Physics I Lab | 1 | PHYS 256 University Physics I Lab | 1 |
| EM 221 or 222 Statics | 3 | EM 221 or 222 Statics | 3 |
| COMM 145 Fund. of Public Speaking  or  COMM 161 Business & Prof. Speaking | 3 | COMM 145 Fund. of Public Speaking  or  COMM 161 Business & Prof. Speaking | 3 |
| CHEM 120 College Chemistry I | 4 | CHEM 120 College Chemistry I | 4 |
| CHEM 121 College Chemistry I Lab | 1 | CHEM 121 College Chemistry I Lab | 1 |

Total hours = 35 **Total hours = 38 or 39**

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

* The civil engineering, mechanical engineering and electrical engineering programs are trying to harmonize the pre-major requirements in mathematics. The pre-major in civil engineering currently requires students to complete only MATH 136 or 137 with a grade of “C” or better. Hence, the same requirement is being proposed for the pre-major in civil engineering, thereby increasing the number of hours from 35 to 38 or 39.

**5. Proposed term for implementation:** Fall 2015

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

Department of Engineering \_\_\_\_3/20/2014\_\_\_\_\_\_\_

Ogden College Curriculum Committee \_\_\_\_4/3/2014\_\_\_\_\_\_\_\_

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

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

Proposal Date: 2/10/2014

**Ogden College of Science and Engineering**

**Department of Engineering**

**Proposal to Revise a Program**

**(Action Item)**

Contact Person: Shane M. Palmquist

[Shane.Palmquist@wku.edu](mailto:Shane.Palmquist@wku.edu)

745-2919

**1. Identification of program:**

* 1. Current program reference number: 534
  2. Current program title: Engineering-Civil
  3. Credit hours: 67

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

* Delete ENGR 175 University Experience-Engineering (1 hr).
* Delete ECON 202 Microeconomics (3 hr).
* Add GEOL 111 The Earth (3 hrs) and GEOL 113 The Earth Laboratory (1 hr).
* Require that students earn a grade of “C” or better in MATH 237 Multivariable Calculus (4 hr) and MATH 331 Differential Equations (3 hr).
* Give students the option of taking the new course CE 305 Risk Analysis (3 hrs) or STAT 301 Probability and Statistics (3 hrs), which is currently a required course. A grade of “C” or better is required in either course.

**3. Detailed program description:**

**CE Current Program CE Proposed Program**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Prefix** | **#** | **Course Title** | **Hrs.** |  | **Prefix** | **#** | **Course Title** | **Hrs.** |
| ~~ENGR or UE~~ | ~~175~~ | ~~University Experience~~ | ~~1 or 2~~ |  |  |  |  |  |
| CE | 176 | CE Freshman Design | 1 |  | CE | 176 | CE Freshman Design | 1 |
| CE | 160 | Prin. of Surveying | 3 |  | CE | 160 | Prin. of Surveying | 3 |
| CE | 161 | Surveying Lab | 1 |  | CE | 161 | Surveying Lab | 1 |
| CE | 303 | Constr. Management | 3 |  | CE | 303 | Constr. Management | 3 |
| CE | 304 | Constr. Management Lab | 1 |  | CE | 304 | Constr. Management Lab | 1 |
|  |  |  |  |  | **CE**  **or**  **STAT** | **305**  **301** | **Risk Analysis**  **Probability & Statistics** | **3** |
| CE | 310 | Strengths Lab | 1 |  | CE | 310 | Strengths Lab | 1 |
| **Prefix** | **#** | **Course Title** | **Hrs.** |  | **Prefix** | **#** | **Course Title** | **Hrs.** |
| CE | 316 | Equip. & Methods | 3 |  | CE | 316 | Equip. & Methods | 3 |
| CE | 331 | Transportation Eng. | 3 |  | CE | 331 | Transportation Eng. | 3 |
| CE | 341 or 342 | Fluid and Thermal Science | 4 |  | CE | 341 or 342 | Fluid and Thermal Science | 4 |
| CE | 351 or 352 | Intro. to Environmental Engineering | 3 |  | CE | 351 or 352 | Intro. to Environmental Engineering | 3 |
| CE | 370 | Matls. of Constr, | 2 |  | CE | 370 | Matls. of Constr, | 2 |
| CE | 371 | Matls. of Constr. Lab | 1 |  | CE | 371 | Matls. of Constr. Lab | 1 |
| CE | 382 or 373 | Structural Analysis | 3 |  | CE | 382 or 373 | Structural Analysis | 3 |
| CE | 384 or 482 or 483 | Civil Engineering Design Course | 3 |  | CE | 384 or 482 or 483 | Civil Engineering Design Course | 3 |
| CE | 410 | Soil Mechanics | 3 |  | CE | 410 | Soil Mechanics | 3 |
| CE | 411 | Soil Mechanics Lab | 1 |  | CE | 411 | Soil Mechanics Lab | 1 |
| CE | 412 | Foundation Eng. | 3 |  | CE | 412 | Foundation Eng. | 3 |
| CE | 461 | Hydrology | 3 |  | CE | 461 | Hydrology | 3 |
| CE | 400 | Senior Proj. Seminar | 1 |  | CE | 400 | Senior Proj. Seminar | 1 |
| CE | 498 | Senior Project | 3 |  | CE | 498 | Senior Project | 3 |
| CE |  | Technical Elective | 3 |  | CE |  | Technical Elective | 3 |
| CE |  | Technical Elective | 3 |  | CE |  | Technical Elective | 3 |
| CE |  | Technical Elective | 3 |  | CE |  | Technical Elective | 3 |
| AMS | 163 | Arch. Drafting | 3 |  | AMS | 163 | Arch. Drafting | 3 |
| EM | 221 or 222 | Statics | 3 |  | EM | 221 or 222 | Statics | 3 |
| EM | 302 or 303 | Mechanics of Deformable Bodies | 3 |  | EM | 302 or 303 | Mechanics of Deformable Bodies | 3 |
| TOTALS |  | Credit Hours | 65 or 66 |  | **TOTALS** |  | **Credit Hours** | **67** |

**Other Requirements Other Proposed Requirements**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Prefix** | **#** | **Course Title** | **Hrs.** |  | **Prefix** | **#** | **Course Title** | **Hrs.** |
| MATH | 136 | Calculus I | 4 |  | MATH | 136 | Calculus I | 4 |
| MATH | 137 | Calculus II | 4 |  | MATH | 137 | Calculus II | 4 |
| MATH | 237 | Multivariable Calculus | 4 |  | MATH | 237 | Multivariable Calculus | 4 |
| MATH | 331 | Differential Equations | 3 |  | MATH | 331 | Differential Equations | 3 |
| STAT | 301 | Probability & Statistics | 3 |  |  |  |  |  |
| PHYS | 255 | University Physics I | 4 |  | PHYS | 255 | University Physics I | 4 |
| PHYS | 256 | Physics I Lab | 1 |  | PHYS | 256 | Physics I Lab | 1 |
| PHYS | 265 | University Physics II | 4 |  | PHYS | 265 | University Physics II | 4 |
| PHYS | 266 | Physics II Lab | 1 |  | PHYS | 266 | Physics II Lab | 1 |
| CHEM | 120 | College Chemistry I | 3 |  | CHEM | 120 | College Chemistry I | 3 |
| CHEM | 121 | Chemistry I Lab | 2 |  | CHEM | 121 | Chemistry I Lab | 2 |
|  |  |  |  |  | **GEOL** | **111** | **The Earth** | **3** |
|  |  |  |  |  | **GEOL** | **113** | **The Earth Lab** | **1** |
| ~~ECON~~ | ~~202~~ | ~~Microeconomics~~ | ~~3~~ |  |  |  |  |  |
| HIST | 119 or 120 | Western Civilization | 3 |  | HIST | 101 or 102 | World History | 3 |
| TOTALS |  | Credit Hours | 39 |  | **TOTALS** |  | **Credit Hours** | 37 |

**CE Current Program:**

Students must have a grade of “C” or better in:

### All CE courses including technical electives (except for one (1) CE 400 level course), and

### EM 221 or 222: Statics, and EM 302 or 303: Mechanics of Deformable Solids.

**CE Proposed Program:**

Students must have a grade of “C” or better in:

### All math courses,

### All premajor courses,

### All CE courses including technical electives (except for one (1) CE 400-level course),

### EM 302 or 303 Mechanics of Deformable Solids, and

* **MATH 237 Multivariable Calculus, MATH 331 Differential Equations and STAT 301 Probability and Statistics if taken.**

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

* Delete ENGR 175 University Experience-Engineering (1 hr).

This one credit course is not needed for students pursuing a major in civil engineering. If a student would like to take a University Experience course with or without an engineering component (CE 175 or UE 175), the civil engineering program faculty and department feel that this should be optional and not required.

* Delete ECON 202 Microeconomics (3 hr).

Concepts in economics important to civil engineering students will be covered in other engineering courses.

* Add GEOL 111 The Earth (3 hrs) and GEOL 113 The Earth Laboratory (1 hr).

This course and lab used to be required of the “pre-major” in civil engineering. However, the course and lab were removed as part of the “pre-major” requirement several years ago. Civil engineering students were still required to take this course and lab since they were prerequisites for CE 410 Soil Mechanics (3 hrs). The civil engineering program faculty and the department would like to formally add these to the major so that the total credit hours for the degree will reflect all courses/labs to be taken.

* Students must earn a grade of “C” or better in MATH 237 Multivariable Calculus (4 hr) and MATH 331 Differential Equations (3 hr).

Currently, students can earn a grade of “D” or better in either or both of these math courses. The civil engineering program faculty and department feel that a grade of “C” or better is necessary so that civil engineers students can more adequately apply advanced mathematical concepts and solution techniques to engineering problems seen in junior and senior level engineering coursework.

* Give students the option of taking the new course CE 305 Risk Analysis (3 hrs) or STAT 301 Probability and Statistics (3 hrs), which is currently a required course. A grade of “C” or better is required in either course.

Requiring a grade of “C” or better in CE 305 Risk Analysis is consistent with the current requirement that all civil engineering students must get a “C” or better in all CE prefixed courses and technical electives (except for one (1) CE 400 level course where a grade of “D” may be earned). Requiring a grade of “C” or better in STAT 301 Probability and Statistics is consistent with the proposed change that students earn a “C” or better in all math courses.

Allowing students to take CE 305 Risk Analysis or STAT 301 Probability or Statistics will allow students greater flexibility and choice in scheduling of classes.

**5. Proposed term for implementation:** Fall 2015

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

Department of Engineering: \_\_\_\_3/20/2014\_\_\_\_\_\_\_

Ogden Curriculum Committee: \_\_\_\_4/3/2014\_\_\_\_\_\_\_\_

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

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