

Ogden College of Science and Engineering
 Western Kentucky University
 Office of the Dean
 745-6371

REPORT TO THE GRADUATE COUNCIL COMMITTEE

DATE: March 28, 2014

FROM: Ogden College of Science and Engineering

The Ogden College of Science and Engineering submits the following items for consideration at the February meeting:

Consent	Proposal to Reactivate a Suspended Course BIOL 464G, Endocrinology Contact Person: Michael Smith, michael.smith1@wku.edu, 52405
Consent	Proposal to Suspend a Course BIOL 483G, Multivariate Methods in Biology Contact Person: Michael Collyer, michael.collyer@wku.edu, 58765
Consent	Proposal to Suspend a Course CHEM 500, Fund/Chemistry Contact Person: Cathleen Webb, cathleen.webb@wku.edu, 53786
Consent	Proposal to Suspend a Course CHEM 506, Chemical Environmental Seminar Contact Person: Cathleen Webb, cathleen.webb@wku.edu, 53786
Consent	Proposal to Suspend a Course CHEM 540, Organic Reactions Contact Person: Cathleen Webb, cathleen.webb@wku.edu, 53786
Consent	Proposal to Suspend a Course CHEM 543, Environmental Science Concepts Contact Person: Cathleen Webb, cathleen.webb@wku.edu, 53786
Consent	Proposal to Suspend a Course CHEM 581, Spectroscopy Contact Person: Cathleen Webb, cathleen.webb@wku.edu, 53786
Consent	Proposal to Suspend a Course CHEM 586, Advanced Materials Chemistry Contact Person: Cathleen Webb, cathleen.webb@wku.edu, 53786
Consent	Proposal to Suspend a Course CHEM 587, Environmental Law Contact Person: Cathleen Webb, cathleen.webb@wku.edu, 53786

Consent	Proposal to Revise Course Catalog Listing CHEM 590, Material Chemistry Contact Person: Cathleen Webb, cathleen.webb@wku.edu, 53786
Consent	Proposal to Revise Course Catalog Listing CHEM 591, Material Chemistry Lab Contact Person: Cathleen Webb, cathleen.webb@wku.edu, 53786
Consent	Proposal to Suspend a Course CHEM 592, Remediation of Chemicals Agents Contact Person: Cathleen Webb, cathleen.webb@wku.edu, 53786
Consent	Proposal to Suspend a Course CHEM 593, Remediation of Chemicals Lab Contact Person: Cathleen Webb, cathleen.webb@wku.edu, 53786
Consent	Proposal to Suspend a Course CHEM 597, Cooperative Research Contact Person: Cathleen Webb, cathleen.webb@wku.edu, 53786
Consent	Proposal to Revise Course Prerequisites/Corequisites PSYS 510, Advanced Research Methods in Psychology Contact Person: Sharon Mutter, sharon.mutter@wku.edu, 54389
Consent	Proposal to Revise Course Prerequisites/Corequisites PSYS 512, Analysis of Variance Contact Person: Sharon Mutter, sharon.mutter@wku.edu, 54389
Consent	Proposal to Revise Course Prerequisites/Corequisites PSYS 513, Correlation and Regression Analysis Contact Person: Sharon Mutter, sharon.mutter@wku.edu, 54389
Consent	Proposal to Revise Course Prerequisites/Corequisites PSYS 518, Statistics and Psychometric Theory Contact Person: Sharon Mutter, sharon.mutter@wku.edu, 54389
Consent	Proposal to Revise Course Prerequisites/Corequisites PSYS 521, Advanced Child Developmental Psychology Contact Person: Sharon Mutter, sharon.mutter@wku.edu, 54389
Consent	Proposal to Revise Course Prerequisites/Corequisites PSYS 530, Conditioning and Learning Contact Person: Sharon Mutter, sharon.mutter@wku.edu, 54389
Consent	Proposal to Revise Course Prerequisites/Corequisites PSYS 533, Advanced Topics in Cognition Contact Person: Sharon Mutter, sharon.mutter@wku.edu, 54389
Consent	Proposal to Revise Course Prerequisites/Corequisites PSYS 552, Advanced Social Psychology Contact Person: Sharon Mutter, sharon.mutter@wku.edu, 54389

Consent	<p>Proposal to Revise Course Prerequisites/Corequisites PSYS 567, Advanced Physiological Psychology Contact Person: Sharon Mutter, sharon.mutter@wku.edu, 54389</p>
Action	<p>Proposal to Create a Temporary Course BIOL 561, Human Parasitology Contact Person: Cheryl Davis, cheryl.davis@wku.edu, 56524</p>
Action	<p>Proposal to Create a New Course BIOL 583, Advanced Biostatistics Contact Person: Michael Collyer, michael.collyer@wku.edu, 58765</p>
Action	<p>Proposal to Revise Course Credit Hours PHYS 512, Quantitative Modeling for Physics Instruction II: Electromagnetism Contact Person: Richard Gelderman, richard.gelderman@wku.edu, 56203</p>
Action	<p>Proposal to Revise Course Credit Hours PHYS 512, Quantitative Modeling for Physics Instruction I: Mechanics Contact Person: Richard Gelderman, richard.gelderman@wku.edu, 56203</p>

MINUTES – OCSE Graduate Curriculum Committee

February 28, 2014

Members Present: Dr. David Keeling, Dr. Martin Stone, Dr. Ivan Novikov, Dr. Ferhan Atici, Dr. Raja Dakshinamurthy, Dr. Daniel Jackson, Dr. Shane Palmquist

Cathleen Webb, Chair

This meeting was held via email.

OLD BUSINESS

Keeling/Dakshinamurthy moved for approval of the minutes from the January 31, 2014 meeting. Motion approved.

NEW BUSINESS

Consent Agenda

Keeling/Dakshinamurthy moved for approval of the Consent Item accepted. Motion approved.

Action Agenda

Mathematics

Keeling/Dakshinamurthy moved for approval of the Action Items. Motion approved with suggested amendments.

Proposal to Revise a Program, Math 085, Master of Science in Mathematics

Proposal to Revise Course Credit Hours, Math 598, Communicating Mathematics and Technical Writing

Proposal Date: 19 March 2014

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

Contact Person: Michael Smith, michael.smith1@wku.edu, 745-2405

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: BIOL 464G
- 1.2 Course title: Endocrinology
- 1.3 Credit hours: 3

2. Rationale for the course reactivation: This course was suspended during the 2009-2010 AY after the Biology Department had not offered BIOL 464G for 10+ years. The Biology Department recently hired (started fall 2012) a new faculty member whose expertise includes Vertebrate Endocrinology, with the expectation that he would teach the course in question on at least a semi-regular basis.

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

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Biology Department:

OCSE Graduate Curriculum Committee

3/1/2014

University Graduate

Curriculum Committee

University Senate

Attachment: Course Inventory Form

Proposal Date: 19 March 2014

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

Contact Person: Michael Collyer, michael.collyer@wku.edu , 270 745-8765

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: BIOL 483G
- 1.2 Course title: Multivariate Methods in Biology

2. Rationale for the course suspension: For several years the BIOL 483/483G course offerings have been populated mainly by Biology graduate students and taught almost exclusively as BIOL 483G . For this reason, BIOL 483 has already been suspended. The difficulty of BIOL 483G and the evaluatory system used predicates replacing with an identical 500-level course, making the present course duplicative and needing of removal from the Biology curriculum. Furthermore, as a 4-hour course, this course causes problems with development of graduate plans of study, as graduate students are limited to 12 hours of 400G-level courses (thus allowing only three 400G-level courses instead of four).

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

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Biology

3/21/2014

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

Proposal Date: 2/28/2014

College Name
Department Name
Proposal to Suspend a Course
(Consent Item)

Contact Person: Webb Cathleen, webb.cathleen@wku.edu, 53786

- 1. Identification of course:**
 - 1.1 Current course prefix (subject area) and number: CHEM 500
 - 1.2 Course title: Fund/Chemistry
- 2. Rationale for the course suspension:** This course has not been offered in more than 5 years, and there are no plans to offer the course in the near future
- 3. Effect of course suspension on programs or other departments, if known:** This course is not required in the chemistry master program and so suspension will have no effect on program completion
- 4. Proposed term for implementation: Fall 2014**
- 5. Dates of prior committee approvals:**

Department/ Unit Chemistry

2/28/2014

Ogden College Graduate Curriculum Committee

University Graduate Curriculum Committee

University Senate

Proposal Date: 2/28/2014

College Name
Department Name
Proposal to Suspend a Course
(Consent Item)

Contact Person: Webb Cathleen, webb.cathleen@wku.edu, 53786

- 1. Identification of course:**
 - 1.1 Current course prefix (subject area) and number: CHEM 506
 - 1.2 Course title: Chemical Environmental Seminar
- 2. Rationale for the course suspension:** This course has not been offered in more than 5 years, and there are no plans to offer the course in the near future
- 3. Effect of course suspension on programs or other departments, if known:** This course is not required in the chemistry master program and so suspension will have no effect on program completion
- 4. Proposed term for implementation: Fall 2014**
- 5. Dates of prior committee approvals:**

Department/ Unit Chemistry

2/28/2014

Ogden College Curriculum Committee

University Graduate Curriculum Committee

University Senate

Proposal Date: 2/28/2014

College Name
Department Name
Proposal to Suspend a Course
(Consent Item)

Contact Person: Webb Cathleen, webb.cathleen@wku.edu, 53786

- 1. Identification of course:**
 - 1.1 Current course prefix (subject area) and number: CHEM 540
 - 1.2 Course title: Organic Reactions
- 2. Rationale for the course suspension:** This course has not been offered in more than 5 years, and there are no plans to offer the course in the near future
- 3. Effect of course suspension on programs or other departments, if known:** This course is not required in the chemistry master program and so suspension will have no effect on program completion
- 4. Proposed term for implementation: Fall 2014**
- 5. Dates of prior committee approvals:**

Department/ Unit Chemistry

2/28/2014

Ogden College Graduate Curriculum Committee

University Graduate Curriculum Committee

University Senate

Proposal Date: 2/28/2014

College Name
Department Name
Proposal to Suspend a Course
(Consent Item)

Contact Person: Webb Cathleen, webb.cathleen@wku.edu, 53786

- 1. Identification of course:**
 - 1.1 Current course prefix (subject area) and number: CHEM 543
 - 1.2 Course title: Environmental Science Concepts
- 2. Rationale for the course suspension:** This course has not been offered in more than 5 years, and there are no plans to offer the course in the near future
- 3. Effect of course suspension on programs or other departments, if known:** This course is not required in the chemistry master program and so suspension will have no effect on program completion
- 4. Proposed term for implementation: Fall 2014**
- 5. Dates of prior committee approvals:**

Department/ Unit Chemistry

2/28/2014

Ogden College Graduate Curriculum Committee

University Graduate Curriculum Committee

University Senate

Proposal Date: 2/28/2014

College Name
Department Name
Proposal to Suspend a Course
(Consent Item)

Contact Person: Webb Cathleen, webb.cathleen@wku.edu, 53786

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: CHEM 581
- 1.2 Course title: Spectroscopy

2. Rationale for the course suspension: This course has not been offered in more than 5 years, and there are no plans to offer the course in the near future

3. Effect of course suspension on programs or other departments, if known: This course is not required in the chemistry master program and so suspension will have no effect on program completion

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department/ Unit Chemistry

2/28/2014

Ogden College Graduate Curriculum Committee

University Graduate Curriculum Committee

University Senate

Proposal Date: 2/28/2014

College Name
Department Name
Proposal to Suspend a Course
(Consent Item)

Contact Person: Webb Cathleen, webb.cathleen@wku.edu, 53786

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: CHEM 586
- 1.2 Course title: Advanced Materials Chemistry

2. Rationale for the course suspension: This course has not been offered in more than 5 years, and there are no plans to offer the course in the near future

3. Effect of course suspension on programs or other departments, if known: This course is not required in the chemistry master program and so suspension will have no effect on program completion

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department/ Unit Chemistry

2/28/2014

Ogden College Graduate Curriculum Committee

University Graduate Curriculum Committee

University Senate

Proposal Date: 2/28/2014

College Name
Department Name
Proposal to Suspend a Course
(Consent Item)

Contact Person: Webb Cathleen, webb.cathleen@wku.edu, 53786

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: CHEM 587
- 1.2 Course title: Environmental Law

2. Rationale for the course suspension: This course has not been offered in more than 5 years, and there are no plans to offer the course in the near future

3. Effect of course suspension on programs or other departments, if known: This course is not required in the chemistry master program and so suspension will have no effect on program completion

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department/ Unit Chemistry

2/28/2014

Ogden College Graduate Curriculum Committee

University Graduate Curriculum Committee

University Senate

Proposal Date: 2/18/2014

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

Contact Person: Yan Cao, yan.cao@wku.edu, 5-2224

1. Identification of course:

- 1.1 Course prefix (subject area) and number: CHEM 590
- 1.2 Course title: Material Chemistry
- 1.3 Credit hours: 3

2. Current course catalog listing:

Extensive survey of coal science topics including the geological and chemical aspects of coal formation, as well as coal resources, handling, conversion, and utilization. The organic chemistry and reactivity of coal in combustion and conversion processes will be emphasized.

3. Proposed course catalog listing:

A class describes the various materials, including metals, semiconductors and polymers. The class is focusing on understanding the relationships between the arrangement of atoms, ions, or molecules comprising materials, and its bulk structural/physical properties, as well as thermochemical properties, kinetic rates and spectroscopic properties of materials. A variety of applications will be discussed including high energy, industrial and pharmaceutical materials.

4. Rationale for revision of the course catalog listing:

The primary rationale behind this change in the course catalog is to provide a more thorough description of the course content to the student body.

5. Proposed term for implementation: Spring 2015

6. Dates of prior committee approvals:

Chemistry Department/Division: 2/28/2014

OCSE Graduate Curriculum Committee _____

University Graduate Curriculum Committee _____

University Senate _____

Attachment: Course Inventory Form

Proposal Date: 2/19/2014

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

Contact Person: Quentin Lineberry, Quentin.lineberry@wku.edu, 0-2532

1. Identification of course:

- 1.1 Course prefix (subject area) and number: CHEM 591
- 1.2 Course title: Material Chemistry Laboratory
- 1.3 Credit hours: 3

2. Current course catalog listing:

Prerequisite: CHEM 330, or equivalent. Analytical chemistry of coal including coal sample preparation, characterization, and analysis will be studied. Analyses as specified by the American Society for Testing and Materials (ASTM) will be emphasized. Recent developments in methods and instrumentation used in coal analysis will be studied.

3. Proposed course catalog listing:

Laboratory course focusing on the properties of materials and how they relate to the structure of the materials. Materials studied will include metals, polymers, ceramics, composites and energetic materials, and a variety of applications will be discussed including high energy, industrial, and pharmaceutical materials. Techniques including thermal analysis, X-ray diffraction, microscopy, and mechanical testing will be employed.

4. Rationale for revision of the course catalog listing:

To broaden the subject matter to include more relevant topics for today's students.

5. Proposed term for implementation: Spring 2015

6. Dates of prior committee approvals:

Chemistry Department/Division:

2/28/14

OCSE Graduate Curriculum Committee

University Graduate Curriculum Committee

University Senate

Attachment: Course Inventory Form

Proposal Date: 2/28/2014

College Name
Department Name
Proposal to Suspend a Course
(Consent Item)

Contact Person: Webb Cathleen, webb.cathleen@wku.edu, 53786

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: CHEM 592
- 1.2 Course title: Remediation of Chemical Agents

2. Rationale for the course suspension: This course has not been offered in more than 5 years, and there are no plans to offer the course in the near future

3. Effect of course suspension on programs or other departments, if known: This course is not required in the chemistry master program and so suspension will have no effect on program completion

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department/ Unit Chemistry

2/28/2014

Ogden College Graduate Curriculum Committee

University Graduate Curriculum Committee

University Senate

Proposal Date: 2/28/2014

College Name
Department Name
Proposal to Suspend a Course
(Consent Item)

Contact Person: Webb Cathleen, webb.cathleen@wku.edu, 53786

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: CHEM 593
- 1.2 Course title: Remediation of Chemicals Lab

2. Rationale for the course suspension: This course has not been offered in more than 5 years, and there are no plans to offer the course in the near future

3. Effect of course suspension on programs or other departments, if known: This course is not required in the chemistry master program and so suspension will have no effect on program completion

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department/ Unit Chemistry

2/28/2014

Ogden College Graduate Curriculum Committee

University Graduate Curriculum Committee

University Senate

Proposal Date: 2/28/2014

College Name
Department Name
Proposal to Suspend a Course
(Consent Item)

Contact Person: Webb Cathleen, webb.cathleen@wku.edu, 53786

- 1. Identification of course:**
 - 1.1 Current course prefix (subject area) and number: CHEM 597
 - 1.2 Course title: Cooperative Research
- 2. Rationale for the course suspension:** This course has not been offered in more than 5 years, and there are no plans to offer the course in the near future
- 3. Effect of course suspension on programs or other departments, if known:** This course is not required in the chemistry master program and so suspension will have no effect on program completion
- 4. Proposed term for implementation: Fall 2014**
- 5. Dates of prior committee approvals:**

Department/ Unit Chemistry

2/28/2014

Ogden College Graduate Curriculum Committee

University Graduate Curriculum Committee

University Senate

Proposal Date: March 3, 2014

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

Contact Person: Sharon Mutter, Sharon.mutter@wku.edu, 5-4389

- 1. Identification of course:**
 - 1.1 PSYS 510
 - 1.2 Course title: Advanced Research Methods in Psychology

- 2. Current prerequisites/corequisites/special requirements:** Graduate standing or permission of the instructor

- 3. Proposed prerequisites/corequisites/special requirements:** Admission to M.S. in Psychology or permission of the instructor.

- 4. Rationale for the revision of prerequisites/corequisites/special requirements:** The Department of Psychological Science is creating a joint undergraduate/masters program (JUMP) that will allow qualified WKU students to enroll in the Psychological Science concentration of the M.S. in Psychology while they are undergraduates. These students will be allowed to take up to 12 credit hours in graduate courses as undergraduates. The revised prerequisite will ensure that this class does not fill with non-program students and seats are available for students in the JUMP.

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

- 6. Proposed term for implementation:** Fall 2014

- 7. Dates of prior committee approvals:**

Department of Psychological Science
OCSE Graduate Curriculum Committee
Graduate Council
University Senate

3/21/2014

Proposal Date: March 18, 2014

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

Contact Person: Sharon Mutter, Sharon.mutter@wku.edu, 5-4389

1. **Identification of course:**
 - 1.1 PSYS 512
 - 1.2 Course title: Analysis of Variance

2. **Current prerequisites/corequisites/special requirements:** Graduate standing or permission of the instructor

3. **Proposed prerequisites/corequisites/special requirements:** Admission to M.S. in Psychology or permission of the instructor.

4. **Rationale for the revision of prerequisites/corequisites/special requirements:** The Department of Psychological Science is creating a joint undergraduate/masters program (JUMP) that will allow qualified WKU students to enroll in the Psychological Science concentration of the M.S. in Psychology while they are undergraduates. These students will be allowed to take up to 12 credit hours in graduate courses as undergraduates. The revised prerequisite will ensure that this class does not fill with non-program students and seats are available for students in the JUMP.

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

6. **Proposed term for implementation:** Fall 2014

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

Department of Psychological Science
OCSE Graduate Curriculum Committee
Graduate Council
University Senate

3/21/2014

Proposal Date: March 18, 2014

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

Contact Person: Sharon Mutter, Sharon.mutter@wku.edu, 5-4389

- 1. Identification of course:**
 - 1.1 PSYS 513
 - 1.2 Course title: Correlation and Regression Analysis

- 2. Current prerequisites/corequisites/special requirements:** Graduate standing or permission of the instructor

- 3. Proposed prerequisites/corequisites/special requirements:** Admission to M.S. in Psychology or permission of the instructor.

- 4. Rationale for the revision of prerequisites/corequisites/special requirements:** The Department of Psychological Science is creating a joint undergraduate/masters program (JUMP) that will allow qualified WKU students to enroll in the Psychological Science concentration of the M.S. in Psychology while they are undergraduates. These students will be allowed to take up to 12 credit hours in graduate courses as undergraduates. The revised prerequisite will ensure that this class does not fill with non-program students and seats are available for students in the JUMP..

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

- 6. Proposed term for implementation:** Fall 2014

- 7. Dates of prior committee approvals:**

Department of Psychological Science
OCSE Graduate Curriculum Committee
Graduate Council
University Senate

3/21/2014

Proposal Date: March 18, 2014

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

Contact Person: Sharon Mutter, Sharon.mutter@wku.edu, 5-4389

1. Identification of course:

- 1.1 PSYS 518
- 1.2 Course title: Statistics and Psychometric Theory

2. Current prerequisites/corequisites/special requirements: None

3. Proposed prerequisites/corequisites/special requirements: Admission to M.S. in Psychology or permission of the instructor.

4. Rationale for the revision of prerequisites/corequisites/special requirements: The Department of Psychological Science is creating a joint undergraduate/masters program (JUMP) that will allow qualified WKU students to enroll in the Psychological Science concentration of the M.S. in Psychology while they are undergraduates. These students will be allowed to take up to 12 credit hours in graduate courses as undergraduates. The revised prerequisite will ensure that this class does not fill with non-program students and seats are available for students in the JUMP.

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

6. Proposed term for implementation: Fall 2014

7. Dates of prior committee approvals:

Department of Psychological Science
OCSE Graduate Curriculum Committee
Graduate Council
University Senate

3/21/2014

Proposal Date: March 18, 2014

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

Contact Person: Sharon Mutter, Sharon.mutter@wku.edu, 5-4389

1. Identification of course:

- 1.1 PSYS 521
- 1.2 Course title: Advanced Child Developmental Psychology

2. Current prerequisites/corequisites/special requirements: None

3. Proposed prerequisites/corequisites/special requirements: Graduate standing or permission of the instructor.

4. Rationale for the revision of prerequisites/corequisites/special requirements: The Department of Psychological Science is creating a joint undergraduate/masters program (JUMP) that will allow qualified WKU students to enroll in the Psychological Science concentration of the M.S. in Psychology while they are undergraduates. These students will be allowed to take up to 12 credit hours in graduate courses as undergraduates. The revised prerequisite will ensure that this class does not fill with non-program students and seats are available for students in the JUMP.

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

6. Proposed term for implementation: Fall 2014

7. Dates of prior committee approvals:

Department of Psychological Science

3/21/2014

OCSE Graduate Curriculum Committee

Graduate Council

University Senate

Proposal Date: March 18, 2014

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

Contact Person: Sharon Mutter, Sharon.mutter@wku.edu, 5-4389

- 1. Identification of course:**
 - 1.1 PSYS 530
 - 1.2 Course title: Conditioning and Learning

- 2. Current prerequisites/corequisites/special requirements:** None

- 3. Proposed prerequisites/corequisites/special requirements:** Admission to M.S. in Psychology or permission of the instructor.

- 4. Rationale for the revision of prerequisites/corequisites/special requirements:** The Department of Psychological Science is creating a joint undergraduate/masters program (JUMP) that will allow qualified WKU students to enroll in the Psychological Science concentration of the M.S. in Psychology while they are undergraduates. These students will be allowed to take up to 12 credit hours in graduate courses as undergraduates. The revised prerequisite will ensure that this class does not fill with non-program students and seats are available for students in the JUMP.

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

- 6. Proposed term for implementation:** Fall 2014

- 7. Dates of prior committee approvals:**

Department of Psychological Science
OCSE Graduate Curriculum Committee
Graduate Council
University Senate

3/21/2014

Proposal Date: March 18, 2014

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

Contact Person: Sharon Mutter, Sharon.mutter@wku.edu, 5-4389

1. Identification of course:

- 1.1 PSYS 533
- 1.2 Course title: Advanced Topics in Cognition

2. Current prerequisites/corequisites/special requirements: None

3. Proposed prerequisites/corequisites/special requirements: Admission to M.S. in Psychology or permission of the instructor.

4. Rationale for the revision of prerequisites/corequisites/special requirements: The Department of Psychological Science is creating a joint undergraduate/masters program (JUMP) that will allow qualified WKU students to enroll in the Psychological Science concentration of the M.S. in Psychology while they are undergraduates. These students will be allowed to take up to 12 credit hours in graduate courses as undergraduates. The revised prerequisite will ensure that this class does not fill with non-program students and seats are available for students in the JUMP.

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

6. Proposed term for implementation: Fall 2014

7. Dates of prior committee approvals:

Department of Psychological Science
OCSE Graduate Curriculum Committee
Graduate Council
University Senate

3/21/2014

Proposal Date: March 18, 2014

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

Contact Person: Sharon Mutter, Sharon.mutter@wku.edu, 5-4389

1. Identification of course:

- 1.1 PSYS 552
- 1.2 Course title: Advanced Social Psychology

2. Current prerequisites/corequisites/special requirements: None

3. Proposed prerequisites/corequisites/special requirements: Admission to M.A. or M.S. in Psychology or permission of the instructor.

4. Rationale for the revision of prerequisites/corequisites/special requirements: The Department of Psychological Science is creating a joint undergraduate/masters program (JUMP) that will allow qualified WKU students to enroll in the Psychological Science concentration of the M.S. in Psychology while they are undergraduates. These students will be allowed to take up to 12 credit hours in graduate courses as undergraduates. The revised prerequisite will ensure that this class does not fill with non-program students and seats are available for students in the JUMP.

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

6. Proposed term for implementation: Fall 2014

7. Dates of prior committee approvals:

Department of Psychological Science
OCSE Graduate Curriculum Committee
Graduate Council
University Senate

3/21/2014

Proposal Date: March 18, 2014

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

Contact Person: Sharon Mutter, Sharon.mutter@wku.edu, 5-4389

1. Identification of course:

- 1.1 PSYS 567
- 1.2 Course title: Advanced Physiological Psychology

2. Current prerequisites/corequisites/special requirements: None

3. Proposed prerequisites/corequisites/special requirements: Admission to M.A. or M.S. in Psychology or permission of the instructor.

4. Rationale for the revision of prerequisites/corequisites/special requirements: The Department of Psychological Science is creating a joint undergraduate/masters program (JUMP) that will allow qualified WKU students to enroll in the Psychological Science concentration of the M.S. in Psychology while they are undergraduates. These students will be allowed to take up to 12 credit hours in graduate courses as undergraduates. The revised prerequisite will ensure that this class does not fill with non-program students and seats are available for students in the JUMP.

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

6. Proposed term for implementation: Fall 2014

7. Dates of prior committee approvals:

Department of Psychological Science
OCSE Graduate Curriculum Committee
Graduate Council
University Senate

3/21/2014

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

Contact Person: Cheryl D. Davis, Cheryl.davis@wku.edu, 745-6524

1. Identification of proposed course

- 1.1 Course prefix (subject area) and number: BIOL 561
- 1.2 Course title: Human Parasitology
- 1.3 Abbreviated course title: Human Parasitology
- 1.4 Credit hours: 3
- 1.5 Schedule type: Lecture
- 1.6 Prerequisites/co-requisites: Graduate standing or permission of instructor.
- 1.7 Course description: Course will emphasize the major parasitic pathogens and parasitic diseases of humans through lectures, case studies, digital images, and discussion of scientific literature. Intended primarily for students participating in on-line masters program in biology.

2. Rationale

- 2.1 Reason for offering this course on a temporary basis: This course will strengthen our offerings in parasitology and microbiology. The course will emphasize human parasitic pathogens, thus benefitting graduate students with medical and global health interests.
- 2.2 Relationship of the proposed course to courses offered in other academic units: A general parasitology course (BIOL 460/460G) with a required 4 hour lab component is currently offered in the Department of Biology in fall semesters. In addition, a graduate course entitled, Host-Parasite Associations (BIOL 523) was offered for the first time in the fall 2012 semester: in this course, host-parasite systems are explored with a major focus on evolutionary concepts. Neither of these courses are available for online masters students in biology.

3. Description of proposed course

- 3.1 Course content outline
 - I. Introduction to Human Parasitology
 - II. Immunoparasitology
 - III. Kinetoplastid Parasites of Humans
 - IV. Other Flagellated Parasites of Humans
 - V. Pathogenic Ameoba of Humans
 - VI. Apicomplexan Parasites of Humans
 - VII. Digenetic Trematode Parasites of Humans
 - VIII. Cestode Parasites of Humans
 - IX. Nematode Parasites of Humans
 - X. Ectoparasites of Humans
- 3.2 Textbook: Foundations of Parasitology (8th ed) by Larry Roberts and John Janovy. ISBN 0073028274

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

- 4.1 Reason for offering this course a second time on a temporary basis: I will be working with DELO during the fall semester to utilize the Quality Matters rubric so that this course can be fully developed into a permanent on-line graduate course in Biology. The course proposal will be developed and submitted during the Fall 2014 semester.
- 4.2 Term course was first offered: Fall 2012
- 4.3 Enrollment in first offering: 14

5. Term of Implementation: Fall 2014

6. Dates of review/approvals:

Biology Department Curriculum Committee

03/21/2014

Ogden College Graduate Curriculum Committee

University Graduate Curriculum Committee

University Senate

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

Contact Person: Michael Collyer, michael.collyer@wku.edu, 745-8765

1. Identification of proposed course:

- 1.1 Course prefix (subject area) and number: BIOL 583
- 1.2 Course title: Advanced Biostatistics
- 1.3 Abbreviated course title: Advanced Biostats
- 1.4 Credit hours and contact hours: 3/3
- 1.5 Schedule type: L (Lecture)
- 1.6 Prerequisites: BIOL 582; Graduate standing or permission of instructor
- 1.7 Course description: Advanced analysis of biological data, including multivariate methods, model selection, and Monte Carlo methods.

2. Rationale:

- 2.1 Reason for developing the proposed course: Biological research requires data analysis for testing hypotheses, comparing multiple models, or predictive modeling. Introductory statistics courses provide students with foundational knowledge of hypothesis testing and common hypothesis tests. This course will build upon this knowledge and introduce methods for generating probability distributions, especially for analyses of multiple variables, methods for comparing multiple models, ordination methods for visualizing multidimensional data spaces, and methods for measuring matrix associations. This course will be essential for many students with thesis research projects, as data collected in biological research are often complex and the methods learned in introductory courses are often inadequate or limited for making proper inferences. Additionally, this course will also largely replace the 4-hour BIOL 483G, "Multivariate Methods in Biology", course, which presented problems for graduate students in terms of scheduling. (Because students are relegated to 12 hours of 400 G-level courses, a 4-hour course causes some inflexibility with developing a plan of study.) BIOL 483 has been suspended because it lacks appeal to undergraduate students; BIOL 483G is also proposed for suspension, in lieu of creating BIOL 583.
- 2.2 Projected enrollment in the proposed course: 10-20. Based on enrollment in BIOL 582, "Biometry," during Fall 2011, Fall 2012, and Summer 2013 semesters, an expected enrollment of 10 graduate students from Biology would be reasonable, if students sought another data analysis course after BIOL 582. Enrollment in BIOL 483G in the Fall 2013 semester also indicates this is a reasonable expectation. However, because there are no other courses at WKU offering multivariate analysis, this course might attract students from other disciplines.

- 2.3 Relationship of the proposed course to courses now offered by the department: This course would be a natural sequitur to BIOL 582 and largely replace BIOL 483G. The previous BIOL 483G course did not have BIOL 582 (or equivalent) as a prerequisite, and required covering topics that were largely redundant with BIOL 582. Creation of BIOL 583 will reduce redundancy and allow a broader range of topics to be covered.
- 2.4 Relationship of the proposed course to courses offered in other departments: No other courses at WKU cover similar topics. However, STAT 401, "Regression Analysis," and STAT 402, "Experimental Design," are undergraduate courses that could serve as appropriate prerequisite replacement for BIOL 582. BIOL 583 should be able to contribute to the Applied Statistics Minor at WKU, as an elective, after completion of STAT 401 and STAT 402 as required courses.
- 2.5 Relationship of the proposed course to courses offered in other institutions: Every Benchmark institution (18 total) offers at least one graduate level course that includes multivariate analysis of data (comparable to the proposed BIOL 583). WKU appears to be the only institution to currently offer a multivariate analysis course at an undergraduate level.

3. Discussion of proposed course:

- 3.1 Course objectives: The purpose of this course is provide students who have some experience in statistical analysis a more in-depth opportunity to become proficient in the analysis of biological data, especially involving multiple biological variables, multiple model inference, and Monte Carlo methods to generate probability distributions. This course focuses on problem solving with biological data and using computer programs to simulate random processes.
- 3.2 Content outline:
- Lecture (3 contact hours)
- Why multiple, related variables are often measured in Biology
 - Linear (matrix) algebra
 - Linear models
 - Generalizing linear models for multivariate data
 - Model comparisons
 - Resampling experiments (Monte Carlo methods)
 - Eigen-analyses
 - Visualizing multi-dimensional data spaces
 - Principal components analysis
 - Multidimensional scaling
 - Correspondence analysis
 - Matrix Association methods
 - Canonical analyses
 - Model Selection and synthesis of methods
- 3.3 Student expectations and requirements: Student performance will be based on data analysis reports, presentations, and exams.

3.4 Tentative texts and course materials: A stand-alone textbook will not be used. The following textbook will be recommended and referenced: Legendre, P., & Legendre, L. (2012). *Numerical ecology* (Vol. 20). Elsevier.

4. Resources:

4.1 Library resources:

- Legendre, P., & Legendre, L. (2012). *Numerical ecology* (Vol. 20). Elsevier.
- Manly, B. F. (2004). *Multivariate statistical methods: a primer*. CRC Press.
- Rencher, A. C., & Christensen, W. F. (2012). *Methods of multivariate analysis* (Vol. 709). John Wiley & Sons.
- Rencher, A. C., & Schaalje, G. B. (2008). *Linear models in statistics*. John Wiley & Sons.
- Manly, B. F. (2006). *Randomization, bootstrap and Monte Carlo methods in biology* (Vol. 70). CRC Press.

4.2 Computer resources: A classroom with computer stations, with up-to-date R software installed.

5. Budget implications:

5.1 Proposed method of staffing: Additional staff is not required. Note, that Dr. Collyer previously taught BIOL 483/483G. This course would replace the previous course in his teaching rotation.

5.2 Special equipment needed: None

5.3 Expendable materials needed: None

5.4 Laboratory materials needed: None

6. Proposed term for implementation: Fall 2014

7. Dates of prior committee approvals:

Department of Biology:

3/21/2014

Ogden College Graduate Curriculum Committee:

Graduate Curriculum Committee:

University Senate:

Attachment: Bibliography, Library Resources Form, Course Inventory Form

Proposal Date: 19 February 2014

**Ogden College of Science and Engineering
Physics and Astronomy
Proposal to Revise Course Credit Hours
(Action Item)**

Contact Person: Richard Gelderman, richard.gelderman@wku.edu, 270-745-6203

1. Identification of course:

- 1.4 Current course prefix (subject area) and number: PHYS 512
- 1.5 Course title: Quantitative Modeling for Physics Instruction II: Electromagnetism
- 1.6 Credit hours: 6

2. Proposed course credit hours: 3

3. Rationale for the revision of course credit hours:

The original justification for PHYS 512 to be a six credit course was based on this course involving over 100 contact hours. However, that justification did not take into account that there is no time for out of class work in the 3-week long, 7-contact hour per day workshop schedule for this course. This issue was brought to our attention by the American Modeling Teachers Association -- the national organization in charge of training and certifying the workshop instructors for these Modeling workshops. When arranging in February to schedule our inaugural workshop, the AMTA director pointed out that the large number of contact hours is NOT the sole criterion for assigning credit hours and that that the total student workload corresponds to a 3-credit course. They pointed out that other institutions offer only 3 credits for this workshop.

Our request for this course to carry fewer credit hours is based solely on a re-evaluation of the total student workload versus the contact hours; no other changes are being made to the course.

4. Proposed term for implementation: Summer 2014

5. Dates of prior committee approvals:

Department of Physics & Astronomy

Ogden College Graduate Committee

Graduate Council

University Senate

19 February 2014

Proposal Date: 19 February 2014

**Ogden College of Science and Engineering
Physics and Astronomy
Proposal to Revise Course Credit Hours
(Action Item)**

Contact Person: Richard Gelderman, richard.gelderman@wku.edu, 270-745-6203

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: PHYS 511
- 1.2 Course title: Quantitative Modeling for Physics Instruction I: Mechanics
- 1.3 Credit hours: 6

2. Proposed course credit hours: 3

3. Rationale for the revision of course credit hours:

The original justification for PHYS 511 to be a six credit course was based on this course involving over 100 contact hours. However, that justification did not take into account that there is no time for out of class work in the 3-week long, 7-contact hour per day workshop schedule for this course. This issue was brought to our attention by the American Modeling Teachers Association -- the national organization in charge of training and certifying the workshop instructors for these Modeling workshops. When arranging in February to schedule our inaugural workshop, the AMTA director pointed out that the large number of contact hours is NOT the sole criterion for assigning credit hours and that that the total student workload corresponds to a 3-credit course. They pointed out that other institutions offer only 3 credits for this workshop. Our request for this course to carry fewer credit hours is based solely on a re-evaluation of the total student workload versus the contact hours; no other changes are being made to the course.

4. Proposed term for implementation: Summer 2014

5. Dates of prior committee approvals:

Department of Physics & Astronomy
Ogden College Graduate Committee
Graduate Council
University Senate

19 February 2014
