

MEMORANDUM TO: Ogden College of Science and Engineering Curriculum Committee

Dr. Katie Algeo
Dr. Melanie Autin
Dr. Doug Harper
Dr. Phil Lienesch
Dr. Jeremy Maddox

Dr. Andy Mienaltowski
Dr. Les Pesterfield
Dr. Huanjing Wang
Dr. Todd Willian

FROM: Kenneth Crawford, Chair

SUBJECT: Agenda for Tuesday, October 3, 2017 4:00 p.m. in COHH 4123

A. OLD BUSINESS:

- I. Consideration of the minutes of the September 7, 2017 meeting.

B. NEW BUSINESS:

Consent Items

Department of Agriculture

- I. Proposal to Delete a Course
 - a. AGMC 177, Farm Equipment Safety, 3 hrs.
- II. Proposal to Revise Course Prerequisites
 - a. AGECE 468, World Food Development, 3 hrs.
 - b. AGMC 392, Turf Irrigation, 3 hrs.
 - c. AGMC 425, Applied Hydraulics and Pneumatics, 3 hrs.
 - d. AGRI 291, Introduction to Data Analysis and Interpretation, 3 hrs.
 - e. AGRI 491, Data Analysis and Interpretation, 3 hrs.

Department of Geography & Geology

- I. Proposal to Revise Course Prerequisites/Corequisites
 - a. GEOG 300, Writing in the Geosciences, 3 hrs.

Action Items

Department of Biology

- I. Proposal to Create a New Course
 - a. BIOL 388, Contemporary Issues in Biotechnology, 0-1
- II. Proposal to Revise a Program
 - a. Ref. 714, Major in Investigative Biotechnology, 48 hrs.

Department of Chemistry

- I. Proposal to Make Multiple Revisions to a Course
 - a. CHEM 470, Chemistry/Middle School, 2-4 hrs.
- II. Proposal to Revise a Program
 - a. Ref. 623, Major in Chemistry, 30-53 hrs.

Department of Mathematics

- I. Proposal to Create a New Course
 - a. STAT 440, Categorical Data Analysis, 3 hrs.
- II. Proposal to Revise a Program
 - a. Ref. 313, Minor in Applied Statistics, 19 hrs.

C. OTHER BUSINESS

Second Reading: Update Curriculum Committee, OCSE, Standing Rules

Members Present:

Dr. Katie Algeo
Dr. Melanie Autin
Dr. Doug Harper
Dr. Phil Lienesch
Dr. Jeremy Maddox

Dr. Andy Mienaltowski
Dr. Les Pesterfield
Dr. Huanjing Wang
Dr. Todd Willian

Guest Present:

Dr. Stacy Wilson
Dr. Sigrid Jacobshagen

FROM: Ken Crawford, Chair – The meeting was called to order at 4:00pm.

OLD BUSINESS:

Autin/Mienaltowski moved for approval of the minutes of the March 30, 2017 meeting. Motion passed.

NEW BUSINESS:

Consent Agenda

Mienaltowski/Willian moved to approve the Department of Chemistry Consent Items. Motion passed.

Mienaltowski/Autin moved to approve the Department of Mathematics Consent Items. Motion passed.

Mienaltowski/Willian moved to approve the School of Engineering and Applied Sciences Consent Items. Motion passed.

Dean's Offices, OCSE & PCAL

Mienaltowski/Pesterfield moved to approve Proposal to Revise Course Prerequisites/Co-requisites: BDAS 495, Brewing and Distilling Arts & Sciences. Motion passed.

Action Agenda

Department of Biology

Maddox/Autin moved to table Proposal to Create a New Course BIOL 388, Contemporary Issues in Biotechnology until the next meeting. Motion passed.

Maddox/Pesterfield moved to table the Proposal to Revise a Program Ref. 714, Major in Investigative Biotechnology until the next meeting. Motion passed.

Department of Psychological Sciences

Autin/Willian moved to approve Proposal to Create a New Course PSYS 425 Developmental Psychopathology and PSYS 442, Psychology of Suicide and Self Injury. Motion passed.

School of Engineering and Applied Sciences

Harper/Mienaltowski moved to approve Proposal to Create a New Course CS 372 Mobile App Development. Motion passed.

Mienaltowski/Wang moved to bundle Proposals to Create a New Course ENGR 490 Senior Seminar and ENGR 491 Senior Project. Motion passed with friendly amendment.

Autin/Pesterfield moved to approve Proposal to Revise a Program Ref. 518 Architectural Science. Motion passed with friendly amendment.

Wang/Mienaltowski moved to approve Proposal to Revise a Program Ref. 534, 537, 543, Pre major to Engineering. Motion passed with friendly amendment.

Autin/Harper moved to approve Proposal to Revise a Program Ref. 534P, Civil Engineering. Motion passed with friendly amendment.

Autin/Willian moved to approve Proposal to Revise a Program Ref. 534, Civil Engineering. Motion passed with friendly amendment.

Wang/Autin moved to approve Proposal to Revise a Program Ref. 537, Electrical Engineering. Motion passed with friendly amendment.

Wang/Harper moved to approve Proposal to Revise a Program Ref. 543, Mechanical Engineering. Motion passed with friendly amendment.

OTHER BUSINESS:

Harper/Algeo moved to approve the first reading of the update to the Curriculum Committee, OSCE, Standing Rules. Motion carried.

Adjourned 5:07pm

Proposal Date: September 11, 2017

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

Contact Person: Cris Scudder, cris.scudder@wku.edu, 745-2969

- 1. Identification of course:**
 - 1.1 Current course prefix (subject area) and number: AGMC 177
 - 1.2 Course title: Farm Equipment Safety
- 2. Rationale for the course deletion: AGMC 176 (Farm Safety) is inclusive of more aspects of farm safety and has replaced this course.**
- 3. Effect of course deletion on programs or other departments, if known: none**
- 4. Proposed term for implementation: first available**
- 5. Dates of prior committee approvals:**

Department of Agriculture

Ogden College Curriculum Committee

Professional Education Council (if applicable)

General Education Committee (if applicable)

Undergraduate Curriculum Committee

University Senate

September 14, 2017

Proposal Date: March 2, 2017

**Ogden College of Science and Engineering
Agriculture Department
Proposal to Revise Course Prerequisite
(Consent Item)**

Contact Person: Stephen King, Stephen.King2@wku.edu, 270-745-5964

1. **Identification of course:**
 - 1.1 Course prefix (subject area) and number: AGEC 468
 - 1.2 Course title: World Food Development
2. **Current prerequisites:** AGEC 360 or instructor's consent.
3. **Proposed prerequisites:** AGEC 160 or ECON 150 or ECON 202, or ECON 203.
4. **Rationale for the revision of prerequisites:** AGEC 468 employs introductory economic principles toward analyzing production problems and opportunities in feeding the global population. A new introductory economic principles course in our department (AGEC 160) is designed to provide students adequate prerequisite knowledge to perform well in AGEC 468. AGEC 160 shares some similarity with lower level ECON principles courses, such as ECON 150, ECON 202, and ECON 203, thus it is proposed that these ECON courses also be approved as allowable prerequisites; these changes also improve the opportunity for students from other disciplines to take this important course as part of their program of study.
5. **Effect on completion of major/minor sequence:** None
6. **Proposed term for implementation:** first available.
7. **Dates of prior committee approvals:**

Agriculture Department

September 14, 2017

OCSE Curriculum Committee

Professional Education Council (if applicable)

N/A

General Education Committee (if applicable)

N/A

Undergraduate Curriculum Committee

University Senate

Proposal Date: September 6, 2017

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

Contact Person: Cris Scudder, cris.scudder@wku.edu, 745-2969

1. **Identification of course:**
 - 1.1 Course prefix (subject area) and number: AGMC 392
 - 1.2 Course title: Turf Irrigation
2. **Current prerequisites/corequisites/special requirements: Corequisite: AGMC 393.
Prerequisites: MATH 116 and AGRO 110.**
3. **Proposed prerequisites/corequisites/special requirements: Corequisite: AGMC 393.
Prerequisites: MATH 115 or MATH 116, AGRO 110.**
4. **Rationale for the revision of prerequisites/corequisites/special requirements: Requisite mathematics skills necessary for this course are covered in either MATH 115 or MATH 116.**
5. **Effect on completion of major/minor sequence: not applicable**
6. **Proposed term for implementation: first available**
7. **Dates of prior committee approvals:**

Department of Agriculture	September 14, 2017
Ogden College Curriculum Committee	_____
Professional Education Council (if applicable)	_____
General Education Committee (if applicable)	_____
Undergraduate Curriculum Committee	_____
University Senate	_____

Proposal Date: September 6, 2017

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

Contact Person: Cris Scudder, cris.scudder@wku.edu, 745-2969

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: AGMC 425
 - 1.2 Course title: Applied Hydraulics and Pneumatics
- 2. Current prerequisites/corequisites/special requirements: Prerequisite: MATH 116 or higher.**
- 3. Proposed prerequisites/corequisites/special requirements: Prerequisite: MATH 115 or MATH 116.**
- 4. Rationale for the revision of prerequisites/corequisites/special requirements: Requisite mathematics skills necessary for this course are covered in either MATH 115 or MATH 116.**
- 5. Effect on completion of major/minor sequence: not applicable**
- 6. Proposed term for implementation: first available**
- 7. Dates of prior committee approvals:**

Department of Agriculture

September 14, 2017

Ogden College Curriculum Committee

Professional Education Council (if applicable)

General Education Committee (if applicable)

Undergraduate Curriculum Committee

University Senate

Proposal Date: September 6, 2017

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

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

1. **Identification of course:**
 - 1.1 Course prefix (subject area) and number: AGRI 291
 - 1.2 Course title: Introduction to Data Analysis and Interpretation

2. **Current prerequisites/corequisites/special requirements: Prerequisite: Six hours of natural and/or social science and MATH 116.**

3. **Proposed prerequisites/corequisites/special requirements: Prerequisite: MATH 115 or MATH 116.**

4. **Rationale for the revision of prerequisites/corequisites/special requirements: Requisite mathematics skills necessary for this course are covered in either MATH 115 or MATH 116.**

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

6. **Proposed term for implementation: first available**

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

Department of Agriculture
Ogden College Curriculum Committee
Professional Education Council (if applicable)
General Education Committee (if applicable)
Undergraduate Curriculum Committee
University Senate

September 14, 2017

Proposal Date: September 11, 2017

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

Contact Person: Stephen King, stephen.king2@wku.edu, 745-5964

1. **Identification of course:**
 - 1.1 Course prefix (subject area) and number: AGRI 491
 - 1.2 Course title: Data Analysis and Interpretation
2. **Current prerequisites/corequisites/special requirements: Prerequisites: AGRI 291 or MATH 116, senior standing, and 3.0 cumulative GPA.**
3. **Proposed prerequisites/corequisites/special requirements: Prerequisite: MATH 115 or higher and junior standing.**
4. **Rationale for the revision of prerequisites/corequisites/special requirements: Requisite mathematics skills necessary for this course are covered in MATH 115 or higher level course. Agriculture students are now required to take either AGRI 291 or AGRI 491; therefore, AGRI 291 as a pre-requisite for AGRI 491 is no longer applicable.**
5. **Effect on completion of major/minor sequence: not applicable**
6. **Proposed term for implementation: first available**
7. **Dates of prior committee approvals:**

Department of Agriculture

September 14, 2017

Ogden College Curriculum Committee

Professional Education Council (if applicable)

General Education Committee (if applicable)

Undergraduate Curriculum Committee

University Senate

Proposal Date: August 23, 2017

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

Contact Person: Pat Kambesis, pat.kambesis@wku.edu, 5-5984

1. **Identification of course:**
 - 1.1 Course prefix (subject area) and number: GEOG 300
 - 1.2 Course title: Writing in the Geosciences
2. **Current prerequisites:** GEOG 103 OR GEOL 103 AND GEOG 110.
3. **Proposed prerequisites/special requirements:** GEOG 103 OR GEOL 103 OR GEOL 111 OR METR 121, GEOG 110 OR GEOG 227, or Permission of Instructor; AND ENG 100,
4. **Rationale for the revision of prerequisites/corequisites/special requirements:** This course is required for all majors in the Department of Geography and Geology, so students should have adequate lower-division geoscience Colonnade course preparation before taking this upper-level course. Writing in the Geosciences requires a basic understanding of geoscience principles, in addition to the fundamentals of grammar and syntax taught in ENG 100.
5. **Effect on completion of major/minor sequence:** No effect on the sequence, as these are all required courses in the majors anyway.
6. **Proposed term for implementation:** 201830
7. **Dates of prior committee approvals:**

Department of Geography and Geology

Ogden College Curriculum Committee

General Education Committee (if applicable)

Undergraduate Curriculum Committee

University Senate

9/15/2017

Proposal Date: September 19, 2017

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

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

1. Identification of proposed course:

- 1.1 Course prefix (subject area) and number: BIOL 388
- 1.2 Course title: Contemporary Issues in Biotechnology
- 1.3 Abbreviated course title: Contemp Biotechnology Issues
- 1.4 Credit hours: 0-1
- 1.5 Grade type: Pass/fail
- 1.6 Special requirement: Restricted to majors of the Molecular Biotechnology program
- 1.7 Course description: Examination of recent advances, ethics and career opportunities in biotechnology through discussions, seminars, and field trips.

2. Rationale:

- 2.1 Reason for developing the proposed course: The proposed course requires students to integrate what they learn in the classroom to broader issues of the quickly evolving field of biotechnology. It helps prepare students for the biotechnological workplace and contributes to retention of Molecular Biotechnology majors by providing a cohort-based environment for support and nurturing purposes. Students will take the course for 0 credit hours each semester that they are declared Molecular Biotechnology major before they will take the course for 1 credit hour in their final semester. The every-semester requirement of the course will bring together all Molecular Biotechnology majors, from freshman to senior.
- 2.2 Projected enrollment in the proposed course: Up to 50 students per semester. This number is based on previous graduation rates for the old biotechnology-relevant major Recombinant Genetics and the current graduation rate for a similar specialty-major, Biochemistry.
- 2.3 Relationship of the proposed course to courses now offered by the department: The proposed course is unique in bringing together all students with the same major and fostering their interactions.
- 2.4 Relationship of the proposed course to courses offered in other departments: Seminar-type courses on contemporary or current issues for a particular major are offered by a number of departments across WKU. Examples would be AMS 401 Contemporary Issues in Architecture and Manufacturing or GEOG 486 Environmental Seminar. Most provide a forum for discussions, a few include also field trips such as PSYS 499 Senior Seminar in Psychology and a few others are also pass/fail such as HMD 459 Senior Seminar in Hospitality Management and Dietetics. A course that must be taken repeatedly for 0 credit hours as a pass/fail course is also offered at WKU with the example of MUS 155, which

requires students to attend a number of recitals. The proposed course is unusual in involving all student levels from freshmen to seniors while fostering their interactions.

- 2.5 Relationship of the proposed course to courses offered in other institutions: Among the universities in the Commonwealth, courses are offered that are similar to parts of the proposed course although none combines all its aspects. For example, the University of Kentucky offers a biotechnology-related course that requires writings, presentations and discussions. The course is called Technical Writing and Presentations in Biotechnology (ABT 301). Morehead State University offers a seminar course that is similar to the proposed course in focusing on contemporary issues in a particular discipline of a major although not in Biotechnology but in a related field. The course is called Issues in Biomedical Science (BIO 499) and supports its Biomedical Science major. Of the benchmark institutions, James Madison University offers a quite similar course with its Biotechnology Seminar (BIOT 260), whose "topics include research opportunities, careers and current topics in biotechnology".

3. Discussion of proposed course:

- 3.1 Schedule type: S—Seminar: Group discussion and exchange of information
- 3.2 Learning Outcomes: Students will be able to
1. correctly interpret and deliberate upon laboratory safety procedures.
 2. interpret and articulate recent advances in biotechnology.
 3. discuss ethical considerations connected with biotechnological procedures.
 4. comment upon the various work environments that biotechnologists may encounter and demonstrate career preparation through resume development.
- 3.3 Content outline:
- Laboratory safety.
 - Recent biotechnology-relevant research and advances.
 - Ethics of biotechnological procedures.
 - The biotechnological work place
 - Resume or curriculum vitae
 - Assessment and student survey
- 3.4 Student expectations and requirements: Readings, presentations and active discussions of biotechnological issues including ethics, attendance at scientific seminars, participation in field trips, participation in career development activities, and taking an assessment and survey.
- 3.5 Tentative texts and course materials: No textbook required.

4. Resources:

- 4.1 Library resources: Adequate. Access to primary scientific literature.
- 4.2 Computer resources: Adequate. Access to the internet through a student's personal computer or through University-owned computers are available.

5. Budget implications:

- 5.1 Proposed method of staffing: Current full-time faculty related to the Molecular Biotechnology major.
- 5.2 Special equipment needed: None

- 5.3 Expendable materials needed: None
- 5.4 Laboratory materials needed: None

6. Proposed term for implementation: Fall 2018

7. Dates of prior committee approvals:

Department of Biology

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

September 22, 2017

Attachment: Course Inventory Form

Proposal Date: September 19, 2017

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

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

1. Identification of program:

- 1.1 Current program reference number: 714
- 1.2 Current program title: Major in Investigative Biotechnology
- 1.3 Credit hours: 48

2. Identification of the proposed program changes:

- Change title of major from Investigative Biotechnology to Molecular Biotechnology.
- Change credit hours from 48 to 55.
- Drop as required courses:
 - BIOL 150 (Investigative Biotechnology Core I)
 - BIOL 151 (Investigative Biotechnology Core II)
 - BIOL 199 (Introduction to Research Experience)
 - BIOL 275 (Colloquia)
 - BIOL 495 (Molecular Genetics).
- Add as required courses:
 - BIOL 120/121 (Biological Concepts: Cells, Metabolism, and Genetics & Laboratory)
 - BIOL 122/123 (Biological Concepts: Evolution, Diversity and Ecology & Laboratory)
 - BIOL 212 (Genome Discovery and Exploration)
 - BIOL 226/227 (Microbial Biology and Diversity & Laboratory)
 - BIOL 319/322 (Introduction to Molecular and Cell Biology & Laboratory)
 - BIOL 382 (Introductory Biostatistics)
 - BIOL 388 (Contemporary Issues in Biotechnology)
 - BIOL 447 (Lab Biochemistry I)
 - BIOL 489 (Professional Aspects of Biology).
- Drop as electives the choice of any biology course applicable to the two biology majors.
- Add as electives the list of courses:
 - BIOL 222/223 (Plant Biology and Diversity & Laboratory) or BIOL 224/225 (Animal Biology and Diversity & Laboratory)
 - BIOL 316 (Evolution)
 - BIOL 328 (Immunology)
 - BIOL 330 (Animal Physiology)
 - BIOL 331 (Animal Physiology Laboratory)
 - BIOL 335 (Neurobiology)
 - BIOL 400 (Plant Physiology)
 - BIOL 403 (Molecular Basis of Cancer)
 - BIOL 404 (Electron Microscopy)

- BIOL 407 (Virology)
- BIOL 412 (Cell Biology Laboratory)
- BIOL 420 (Introduction to Toxicology)
- BIOL 440 (Developmental Genetics)
- BIOL 464 (Endocrinology)
- BIOL 467 (Biochemistry II)
- BIOL 470 (Pathogenic Microbiology)
- BIOL 490 (Plants as Alternative Therapeutics)
- BIOL 495 (Molecular Genetics)
- BIOL 496 (Plant Biotechnology).
- Drop as required supporting course:
 - BIOL 283 (Introductory Biostatistics).
 - CHEM 314 (Introduction to Organic Chemistry)
- Add as required supporting courses:
 - The sequence MATH 116 (College Algebra) and MATH 117 (Trigonometry) as the choice with MATH 136 (Calculus I) from which the students have to choose one.
 - AMS 371 (Quality Assurance) or AMS 390 (Project Management) or AMS 430 (Technology Management/Team Building).

3. Detailed program description:

Current program	Proposed program
<p><u>Title</u> Major in Investigative Biotechnology</p> <p><u>Required coursework (38 hrs)</u> BIOL 150: Investigative Biotechnology Core I (5) BIOL 151: Investigative Biotechnology Core II (5) BIOL 199: Introduction to Research Experience (1) BIOL 275: Colloquia (1) BIOL 312: Bioinformatics (4) BIOL 327: Genetics (4) BIOL 350: Introduction to Recombinant Genetics (3) BIOL 369: Cooperative Education in Biology (3) or BIOL 399: Research Problems in Biology (3) BIOL 411: Cell Biology (3) BIOL 446: Biochemistry I (3) BIOL 495: Molecular Genetics (3)</p>	<p><u>Title</u> Major in Molecular Biotechnology</p> <p><u>Required coursework (45 hrs)</u> BIOL 120/121: Biological Concepts: Cells, Metabolism, and Genetics & Laboratory (4) BIOL 122/123: Biological Concepts: Evolution, Diversity and Ecology & Laboratory (4) BIOL 212: Genome Discovery and Exploration (2) BIOL 226/227: Microbial Biology and Diversity & Laboratory (4) BIOL 312: Bioinformatics (4) BIOL 319/322: Introduction to Cellular and Molecular Biology & Laboratory (4) BIOL 327/337: Genetics & Laboratory (4) BIOL 350: Introduction to Recombinant Genetics (3) BIOL 369: Cooperative Education in Biology (3) or BIOL 399: Research Problems in Biology (3) BIOL 382: Introductory Biostatistics (3) BIOL 388: Contemporary Issues in Biotechnology (5x0, 1x1) BIOL 411: Cell Biology (3) BIOL 446: Biochemistry I (3) BIOL 447: Biochemistry Laboratory (2) BIOL 489: Professional Aspects of Biology (1)</p>

<p><u>Elective coursework (10 hrs)</u> Any course in the biology curriculum applicable to the biology major may be used as an elective for the Investigative Biotechnology major in consultation with the student's advisor.</p> <p><u>Supporting coursework</u></p> <p>BIOL 283: Introductory Biostatistics (4) or MATH 136: Calculus I (4) CHEM 120/121: College Chemistry I & Lab (5) CHEM 222/223: College Chemistry II & Lab (5) CHEM 314: Introduction to Organic Chemistry (5) or [CHEM 340/341: Organic Chemistry I & Lab (5) and CHEM 342/343: Organic Chemistry II & Lab (5)] PHYS 231/232: Introduction to Physics and Biophysics I & Lab (4) PHYS 332/233: Introduction to Physics and Biophysics II & Lab (4)</p>	<p><u>Elective coursework (10 hrs) chosen from the following list</u></p> <p>BIOL 222/223: Plant Biology and Diversity & Laboratory (4) or BIOL 224/225: Animal Biology and Diversity & Laboratory (4) BIOL 316: Evolution (3) BIOL 328: Immunology (4) BIOL 330: Animal Physiology (3) BIOL 331: Animal Physiology Laboratory (1.5) BIOL 335: Neurobiology (3) BIOL 400: Plant Physiology (4) BIOL 403: Molecular Basis of Cancer (3) BIOL 404: Electron Microscopy (4) BIOL 407: Virology (3) BIOL 412: Cell Biology Laboratory (1) BIOL 420: Introduction to Toxicology (3) BIOL 440: Developmental Genetics (3) BIOL 464: Endocrinology (3) BIOL 467: Biochemistry II (3) BIOL 470: Pathogenic Microbiology (3) BIOL 490: Plants as Alternative Therapeutics (3) BIOL 495: Molecular Genetics (3) BIOL 496: Plant Biotechnology (4)</p> <p><u>Supporting coursework</u></p> <p>Either MATH 116: College Algebra (3) and MATH 117: Trigonometry (3)] or MATH 136: Calculus I (4) CHEM 120/121: College Chemistry I & Lab (5) CHEM 222/223: College Chemistry II & Lab (5) CHEM 340/341: Organic Chemistry I & Lab (5) CHEM 342/343: Organic Chemistry II & Lab (5) PHYS 231/232: Introduction to Physics and Biophysics I & Lab (4) PHYS 332/233: Introduction to Physics and Biophysics II & Lab (4) AMS 371: Quality Assurance (3) or AMS 390: Project Management (3) or AMS 430: Technology Management/Team Building (3)</p>
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This major requires a minimum of 55 hours of molecular biotechnology-related courses in biology that involve subjects such as genome discovery, molecular biology, microbiology, bioinformatics and research experience or an internship, among others. At least 28 of these hours must be at the 300 or higher level. No minor is required. All students are required to complete BIOL 120/121, BIOL 122/123, BIOL 212, BIOL 226/227, BIOL 312, BIOL 319/322, BIOL 327/337, BIOL 350, BIOL 382, BIOL 411, BIOL 446, BIOL 447, BIOL 489. Students must also take BIOL 388 every semester for a minimum of 5 at 0 credit hours before being able to take the course for 1 credit hour in their last semester. In addition, students must take either BIOL 369 or BIOL 399.

Students must also select 10 credit hours of elective courses from BIOL 222/223 or BIOL 224/225, BIOL 316, BIOL 328, BIOL 330, BIOL 331, BIOL 335, BIOL 400, BIOL 403, BIOL 404, BIOL 407, BIOL 412, BIOL 420, BIOL 440, BIOL 464, BIOL 467, BIOL 470, BIOL 490, BIOL 495, BIOL 496.

Because an understanding of mathematics, chemistry and physics is required for a full understanding of Molecular Biotechnology and because an understanding of workplace-related issues is important for a successful application of molecular biotechnology, students are required to complete the supporting courses of either MATH 116 and MATH 117 or MATH 136, of CHEM 120/121, CHEM 222/223, CHEM 340/341 and CHEM 342/343, of PHYS 231/232 and PHYS 332/233, and of either AMS 371 or AMS 390 or AMS 430.

4. Rationale for the proposed program change:

Overall, the proposed changes are the result of intensive research on current and projected requirements and conditions for work in the biotechnology industry or in biotechnology research in an academic setting. The changes are also intended to better align the courses with departmental resources and with recently developed biotechnology-related courses.

- The new title of the major (Molecular Biotechnology instead of Investigative Biotechnology) reflects the focus on molecular processes and molecular technologies.
- The change in credit hours of the major from 48 to 55 hours is necessary to achieve the intended depth of education, particularly in light of modern developments in the field of molecular biotechnology.
- The previously required introductory series specific for the major (BIOL 150/151: Investigative Biotechnology Core I/II) and the equally specific Introduction to Research Experience (BIOL 199) will be replaced with the introductory series required for the Biology major (BIOL120/121 and 122/123: Biological Concepts in Cells, Metabolism, & Genetics as well as in Evolution, Diversity and Ecology, with their laboratories) and with the recently developed Genome Discovery and Exploration course (BIOL 212). The aims of each set of courses are the same, i.e. to lay a basic foundation of required knowledge but at the same time to also instill enthusiasm for the scientific approach through hands-on, investigative exercises. The proposed changes make the approach far superior, however, because they rely on well-developed courses in the department. The Genome Discovery and Exploration course in particular relies on molecular biotechnology-related research specifically geared towards freshmen and has already produced many student presentations, student databank entries and publications with student authors. The changes will also better integrate the Molecular Biotechnology major into the Biology Department for more efficient use of resources and faculty time.
- Replacing the required Colloquia (BIOL 275) with Contemporary Issues in Biotechnology (BIOL 388) will not increase the number of credit hours (both are 1 credit hour), but it will elevate this requirement to a branding course for the major creating a cohort-based environment that fosters peer-to-peer learning. It will be taken each semester by every Molecular Biotechnology major, from freshman to senior. For a minimum of 5 times, BIOL 388 will be taken as a 0 credit hour course before the student

can take the course for 1 credit hour in the last semester. Since molecular biotechnology changes rapidly, the frequent course interval will also allow students to become better acquainted with these changes.

- The additional required courses, which are Microbial Biology and Diversity & Laboratory (BIOL 226/227), Introduction to Molecular and Cell Biology & Laboratory (BIOL 319/322), Introductory Biostatistics (BIOL 382), and Biochemistry Laboratory (BIOL 447) will provide necessary content that is required for mastering concepts in molecular biotechnology.
- The addition of a required Professional Aspects of Biology (BIOL 489) upon the completion of a supervised internship experience (BIOL 369) or independent research project (BIOL 399) will cap the experience by employing peer-to-peer learning to leverage the research or internship exposure, while preparing the students for careers in the molecular biotechnology field.
- Listing these particular courses as electives instead of allowing any course as an elective that is also applicable to the biology majors will ensure that students are on a path of learning where they gain a solid understanding of the breadth of concepts in molecular biotechnology.
- Removing Introductory Biostatistics (BIOL 283) as the choice with Calculus I as supporting course is necessary, since Introductory Biostatistics (which lately received the new number of BIOL 382) has been made a required course in line with the importance the subject plays in molecular biotechnology, where large amounts of data are often produced and analyzed. Instead, the two-course-sequence College Algebra (MATH 116) and Trigonometry (MATH 117) as the other choice with Calculus I is added, because Trigonometry is required as prerequisite for Introductory Biostatistics and College Algebra as prerequisite for Trigonometry. As a consequence, the mathematics that is required is made more clear.
- Introduction to Organic Chemistry (CHEM 314) is removed because the Chemistry Department does not offer the course anymore.
- Three AMS courses are added as supporting courses from which students have to choose one in order to better prepare themselves for the biotechnological workplace in industry or academia.

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

Fall of 2018

6. Dates of prior committee approvals:

Department of Biology

September 22, 2017

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

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

Contact Person: L.L. Pesterfield, lester.pestterfield@wku.edu, 5-3603

- 1. Identification of course:**
 - 1.1 CHEM 470
 - 1.2 Chemistry / Middle School

- 2. Revise course title:** NA

- 3. Revise course number:** NA

- 4. Revise course prerequisites/corequisites/special requirements:**
 - 4.1 Current prerequisites: None
 - 4.2 Proposed prerequisites: CHEM 105 or 120
 - 4.3 Rationale for revision of course prerequisites: For the course content to be covered at an appropriate level, students must have background knowledge of the fundamental concepts in chemistry. The course is not an introductory course but builds on previous content knowledge.
 - 4.4 Effect on completion of major/minor sequence: None

- 5. Revise course catalog listing:**
 - 5.1 Current catalog listing: Chemical theories and principles in the middle school science curricula (elective credit only).
 - 5.2 Proposed course catalog listing: A study of the atomic and electronic structure of atoms, bonding theories, types of chemical reactions, intermolecular forces and the structure of solids as related to the middle school science curriculum. The course may not be used to fulfill the requirements for a chemistry major or minor.
 - 5.3 Rationale for revision of course catalog listing: The current catalog listing lacks sufficient detail to give the reader an understanding of the content of the course. Additionally, the "elective credit only" statement is misleading for Middle School Science Program majors.

- 6. Revise course credit hours:**
 - 6.1 Current course credit hours: 2-4
 - 6.2 Proposed course credit hours: 3
 - 6.3 Rationale for revision of course credit hours: Historically the course has only been offered as 3 credit hours. Additionally the course is part of the Middle School Science Program which requires the course to be offered as 3 credit hours.

- 7. Revise grade type:** NA

8. **Proposed term for implementation:** Fall 2018

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

Department of Chemistry

9/1/2017

College Curriculum Committee

Professional Education Council (if applicable)

General Education Committee (if applicable)

Undergraduate Curriculum Committee

University Senate

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

Contact Person: Jeremy B. Maddox, jeremy.maddox@wku.edu, 5-8725

1. Identification of program:

- 1.1 Current program reference number: 623
- 1.2 Current program title: Major in Chemistry
- 1.3 Credit hours: 30-53

2. Identification of the proposed program changes:

- 2.1 The General Chemistry Major Concentration is revised to add a restriction that students must complete a second major. The previous requirement was that a minor or second major must be completed.
- 2.2 The General Chemistry Major Concentration is revised to require both CHEM 340/341 and CHEM 342/343 and eliminates a 2-hour unspecified CHEM elective. This increases the number of CHEM credit hours for the concentration from 30 to 33, which will also be the new minimum number of CHEM credit hours required for a chemistry degree.
- 2.3 The General Chemistry Major Concentration is revised to require MATH 136 and either PHYS 255/256 or PHYS 231/232 as support courses.
- 2.4 A new concentration, the Foundations Chemistry Major, is proposed and will require either a minor or a second major. The number of required CHEM credit hours for the proposed concentration is 37 with additional requirements of MATH 136 and either PHYS 255/256 or PHYS 231/232 as support courses.

3. Detailed program description:

Current Program	Proposed Program
The major in chemistry requires a minimum of 30 semester hours and leads to the Bachelor of Science degree.	The major in chemistry requires a minimum of 30 33 semester hours and leads to the Bachelor of Science degree.
A second major or minor or the ACS-certified concentration is also required. The department offers three concentrations that lead to a Bachelor of Science degree in chemistry. The most common are a Chemistry major with American Chemical Society (ACS) certification and a standard major in Chemistry, typically for pre-professional and/or double majors.	A second major or minor or the ACS-certified concentration is also required. The department offers three four concentrations that lead to a Bachelor of Science degree in chemistry. The most common are a Chemistry major with American Chemical Society (ACS) certification and a standard general major in Chemistry, typically for pre-professional and/or double majors students with a double major .

<p><i>ACS Certified Chemistry Major Concentration</i></p> <p>CHEM course requirements (53 hours):</p> <p>CHEM 120/121 (5) CHEM 222/223 (5) CHEM 320 (3) CHEM 330 (5) CHEM 340/341 (5) CHEM 342/343 (5) CHEM 398 (1) CHEM 399 (2) CHEM 420 (3) CHEM 421 (1) CHEM 446 (3) CHEM 435 (3) CHEM 436 (2) CHEM 450/451 (5) CHEM 452/453 (5)</p> <p>Cognate course requirements (16-18 hours):</p> <p>MATH 136 (4) MATH 137 (4) PHYS 231/232 (4) or 255/256 (5) PHYS 332/233 (4) or 265/266 (5)</p>	<p><i>ACS Certified Chemistry Major Concentration</i></p> <p>CHEM course requirements (53 hours):</p> <p>CHEM 120/121 (5) CHEM 222/223 (5) CHEM 320 (3) CHEM 330 (5) CHEM 340/341 (5) CHEM 342/343 (5) CHEM 398 (1) CHEM 399 (2) CHEM 420 (3) CHEM 421 (1) CHEM 446 (3) CHEM 435 (3) CHEM 436 (2) CHEM 450/451 (5) CHEM 452/453 (5)</p> <p>Cognate course requirements (16-18 hours):</p> <p>MATH 136 (4) MATH 137 (4) PHYS 231/232 (4) or 255/256 (5) PHYS 332/233 (4) or 265/266 (5)</p>
<p><i>General Chemistry Major Concentration</i></p> <p>CHEM course requirements (30 hours):</p> <p>CHEM 120/121 (5) CHEM 222/223 (5) CHEM 330 (5) CHEM 314 or 340/341 (5)</p> <p>CHEM 320 or 446 (3) CHEM 412 or 450/451 (5) CHEM 300+ (2)</p>	<p><i>General Chemistry Major Concentration</i></p> <p>A second major is required for this concentration.</p> <p>CHEM course requirements (30 33 hours):</p> <p>CHEM 120/121 (5) CHEM 222/223 (5) CHEM 330 (5) CHEM 314 or 340/341 (5) CHEM 342/343 (5) CHEM 320 or 446 (3) CHEM 412 or 450/451 (5) CHEM 300+ (2)</p> <p>Cognate course requirements (8-9 hours): MATH 136 (4) PHYS 231/232 (4) or 255/256 (5)</p>

	<p><i>Foundations Chemistry Major Concentration</i></p> <p>A minor or second major is required for this concentration.</p> <p>CHEM course requirements (37 hours): CHEM 120/121 (5) CHEM 222/223 (5) CHEM 320 (3) CHEM 330 (5) CHEM 340/341 (5) CHEM 342/343 (5) CHEM 398 (1) CHEM 446 (3) CHEM 412 or 450/451 (5)</p> <p>Cognate course requirements (8-9 hours): MATH 136 (4) PHYS 231/232 (4) or 255/256 (5)</p>
<p><i>Chemistry Major with Teacher Certification Concentration</i></p> <p>Students interested in teaching chemistry must declare a second major in Science and Mathematics Education (SMED) available through the College of Education and Behavioral Sciences.</p> <p>CHEM course requirements (35 hours):</p> <p>CHEM 120/121 (5) CHEM 222/223 (5) CHEM 314 (5) CHEM 320 (3) CHEM 330 (5) CHEM 399 (2) CHEM 412 (5) CHEM 446/447 (5)</p> <p>Cognate course requirements (16 hours):</p> <p>MATH 136 (4) PHYS 231/232 (4) PHYS 332/233 (4) GEOL 111/113 (4)</p>	<p><i>Chemistry Major with Teacher Certification Concentration</i></p> <p>Students interested in teaching chemistry must declare a second major in Science and Mathematics Education (SMED) available through the College of Education and Behavioral Sciences.</p> <p>CHEM course requirements (35 hours):</p> <p>CHEM 120/121 (5) CHEM 222/223 (5) CHEM 314 (5) CHEM 320 (3) CHEM 330 (5) CHEM 399 (2) CHEM 412 (5) CHEM 446/447 (5)</p> <p>Cognate course requirements (16 hours):</p> <p>MATH 136 (4) PHYS 231/232 (4) PHYS 332/233 (4) GEOL 111/113 (4)</p>

<p><i>Chemistry Major with Teacher Certification Concentration (continued)</i></p> <p>SMED course requirements (37 hours):</p> <p>SMED 101 (1-1.5) SMED 102 (2-3) SMED 310 (3) SMED 320 (3) SMED 340 (3) SMED 360 (3) SMED 470 (3) SMED 489 (3) SPED 330 (3) SEC 490 (5-10) LTCY 421 (3)</p>	<p><i>Chemistry Major with Teacher Certification Concentration (continued)</i></p> <p>SMED course requirements (37 hours):</p> <p>SMED 101 (1-1.5) SMED 102 (2-3) SMED 310 (3) SMED 320 (3) SMED 340 (3) SMED 360 (3) SMED 470 (3) SMED 489 (3) SPED 330 (3) SEC 490 (5-10) LTCY 421 (3)</p>
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4. Rationale for the proposed program change:

The Department of Chemistry has recently undertaken a comprehensive review of its curriculum relative to a set of 15 internally selected benchmark institutions. After careful consideration of many different factors, the Department has proposed the revisions listed above to the *General Chemistry Major* concentration and also proposed the creation of a new *Foundations Chemistry Major* concentration. The revised course requirements will provide a more comprehensive and rigorous program of study for all Chemistry majors. Specifically, the requirement that chemistry majors take two semesters of organic chemistry and support courses in calculus and physics are basically standard across the institutions examined in the Department's benchmark study. The proposed revisions will make the WKU Chemistry curriculum consistent with these standards, as well as internally consistent with course revisions approved in the previous academic year, e.g., calculus and physics are now prerequisites for the physical chemistry coursework that all chemistry majors are required to take. The proposed revisions will also provide the Department with flexibility to accommodate a wide range of students with varying academic and career objectives. Each of the four chemistry major concentrations is designed to meet the particular needs and pre-professional requirements for a specific sub-populations of chemistry majors. The ACS-certified concentration primarily serves students wanting to pursue graduate studies in Chemistry or to enter the workforce as a chemist. The *Teacher Certification* concentration serves future high school chemistry teachers. The *General Chemistry Major* concentration (with the proposed requirement of a second major) is most appropriate for students whose career path requires a strong background in chemistry, but are not planning to be practicing chemists. The proposed *Foundations Chemistry Major* (with the requirement of a minor or second major) will serve students whose primary undergraduate focus is chemistry and that require a very strong formal background in all five of the traditional sub-disciplines within chemistry (analytical, biochemistry, inorganic, organic, and physical).

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

First available

6. Dates of prior committee approvals:

Department of Chemistry	<u>9/1/2017</u>
Ogden College Curriculum Committee	_____
Professional Education Council (if applicable)	_____
Undergraduate Curriculum Committee	_____
University Senate	_____

At the undergraduate level, some of these topics are taught in a discipline-focused setting in BIOL 283, BIOL 483, PSY 313, and SOCL 300, most of which also require one or more prerequisites in the same discipline. STAT 440 will cover techniques for categorical data analysis which can be used in a broad range of applications across many disciplines. At the graduate level, some of these topics are taught in courses offered by the department of agriculture, biology, psychology, and psychological sciences and in the educational leadership program.

- 2.5 Relationship of the proposed course to courses offered in other institutions:
Many mathematics and/or statistics department offer an undergraduate categorical data analysis course.

Benchmark institutions with an undergraduate categorical data analysis course:

- Eastern Michigan University: Math 469 Introduction to Categorical Data Analysis
- Oakland University: STA 424 Analysis of Categorical Data
- Youngtown State University: STAT 5846 Categorical Data Analysis

Kentucky public institutions with an undergraduate categorical data analysis course:

- Northern Kentucky University: STA 327 Categorical Data Analysis

3. Discussion of proposed course:

- 3.1 Schedule type: L

- 3.2 Learning Outcomes:

A student who has successfully completed this course should be able to:

- Have basic knowledge of various types of models for categorical data
- Use appropriate techniques to test hypotheses about associations between two or more dichotomous variables
- Conduct statistical inferences and interpret of the results of logistic regression, log-linear models, and multcategory logit models
- Analyze real data sets using categorical data analysis
- Use statistical software package(s) to aid in performing the above tasks

- 3.3 Content outline:

- Contingency tables, measures of association, and Chi-squared test for independence
 - Binomial and multinomial data
 - Measures of association
 - Relative risk and odds ratio in 2x2 tables
 - Confidence interval for odds ratio
 - Chi-squared test for independence
 - Fisher's exact test for small samples
 - IxJ tables
 - Test of independence for ordinal data

- Logistic Regression
 - Fitting logistic regression models
 - Statistical inferences and model goodness-of-fit
 - Model selection
- Log-linear model for contingency tables
- Multicategory Logit models

3.4 Student expectations and requirements:
Regular attendance is required. The student's grade in the course will be determined by performance on homework, computer assignments, tests, class project(s), and a comprehensive final examination.

3.5 Tentative texts and course materials:
Agresti, A. 2012. *Categorical Data Analysis* (3rd Edition). New York: Wiley
Agresti, A. 2007. *An introduction to Categorical Data Analysis* (2nd Edition). New York: Wiley
David, C. S., and Koch, G. G. 2012. *Categorical Data Analysis using SAS* (3rd Edition). SAS Publishing.
Xie, Y. and Powers, D. 2008. *Statistical Methods for Categorical Data Analysis* (2nd Edition). Emerald Group Publishing.

4. Resources:

- 4.1 Library resources:
See attached bibliography and Library Resources Form.
- 4.2 Computer resources:
Computers with installation of SAS computing software.

5. Budget implications:

- 5.1 Proposed method of staffing:
Existing faculty will teach this course.
- 5.2 Special equipment needed:
A classroom equipped with an instructor desktop (with installed statistical software) hooked to an LCD projector is sufficient; the department has access to such classrooms.
- 5.3 Expendable materials needed: None
- 5.4 Laboratory materials needed: None

6. Proposed term for implementation: Spring 2018

7. Dates of prior committee approvals:

Department of Mathematics

OCSE College Curriculum Committee

9/15/2017

Undergraduate Curriculum Committee
University Senate

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

Contact Person: Melanie Autin, melanie.autin@wku.edu, 5-6171

1. Identification of program:

- 1.1 Current program reference number: 313
- 1.2 Current program title: Minor in Applied Statistics
- 1.3 Credit hours: a minimum of 19 hours

2. Identification of the proposed program changes:

- Remove MATH 382 and MATH 470 as optional courses in the minor.
- Add STAT 402 to required courses.
- Change the required coursework hours from 13 to 16 and the elective hours from 6 to 3.

3. Detailed program description:

<p>A minor in applied statistics requires a minimum of 19 semester hours. This program is designed for a student seeking a career as a statistical programmer/analyst/consultant in a knowledge-based industry or in a research institution.</p> <p>The student who elects a minor in applied statistics must complete a minimum of 13 credit hours, as follows: MATH 136 or MATH 142; STAT 301, STAT 330, and STAT 401. In addition, the student is required to take relevant elective courses to total at least 6 credit hours from the following: (1) any 300-level or 400-level STAT course other than STAT 301, STAT 330, and STAT 401; (2) MATH 382, MATH 482, or MATH 470; (3) at most 3 credit hours of 300-400 level statistical coursework relevant to the student's area of study (with prior approval from the Statistics Education Committee of the Department of Mathematics).</p>	<p>A minor in applied statistics requires a minimum of 19 semester hours. This program is designed for a student seeking a career as a statistical programmer/analyst/consultant in a knowledge-based industry or in a research institution.</p> <p>The student who elects a minor in applied statistics must complete a minimum of 16 required credit hours, as follows: MATH 136 or MATH 142; STAT 301, STAT 330, STAT 401, and STAT 402. In addition, the student is required to take at least 3 credit hours of relevant elective coursework from the following: (1) any 300-level or 400-level STAT course other than STAT 301, STAT 330, STAT 401, and STAT 402; (2) MATH 482; (3) at least 3 credit hours of 300-400 level statistical coursework relevant to the student's area of study (with prior approval from the Statistics Education Committee of the Department of Mathematics).</p>
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(Side-by-side table is required for most program changes showing revised program on the right and identifying deletions by strike-through and additions in boldface.)

4. Rationale for the proposed program change:

Overall, these changes will allow for a more inclusive opportunity for students wishing to minor in Applied Statistics. Currently, it is very difficult for students who are not already studying

mathematics to complete the minor, since most students in the minor must take MATH 382 and MATH 482 to complete the requirements. These two courses are mathematically rigorous in content and require an additional 11 hours in mathematics prerequisites. Adding STAT 402 as a required course will allow for a more discipline-diverse student population in the minor. More detailed justifications for each of the proposed changes are as follows:

- Although MATH 382 Probability & Statistics I and MATH 470 Introduction to Operations Research are applied mathematics courses, they are not applied statistics courses. In fact, there is very little statistics in either of these courses. MATH 482 can be kept as an option in the minor, as the material in this course lays a theoretical foundation for statistical inference; however, MATH 382 almost exclusively covers probability.
- STAT 402 Experimental Design is a fundamental applied statistics course. This course gives students the foundational skills of designing and analyzing experiments, with emphasis on the interpretation of statistical results and the use of statistical software. The American Statistical Association includes design of experiments in its list of specific topics to include in a minor in statistics (second to only applied regression, which is currently required in the minor). Furthermore, adding STAT 402 as a requirement will allow for a more frequent, traditional offering of the course. As it is not currently required in the minor, it has been offered recently as only an independent study course.
- Since STAT 402 is being added as a requirement, only 3 additional elective hours are needed to complete the minor.

5. **Proposed term for implementation and special provisions (if applicable):** Fall 2018

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

Department of Mathematics	<u>September 15, 2017</u>
Ogden College Curriculum Committee	_____
Undergraduate Curriculum Committee	_____
University Senate	_____

CURRICULUM COMMITTEE, OCSE, STANDING RULES

I. Purpose and Functions

- A. To review recommendations concerning undergraduate college and university curricula which are relevant to the Ogden College of Science and Engineering and to the welfare and best interests of the University, its students, and its faculty.
- B. To render decisive action on matters of undergraduate curriculum and academic policy that affect only the College of Science and Engineering.
- C. To submit for consideration to the University Curriculum Committee all approved recommendations which do not qualify for final action under the conditions of Item B.
- D. To initiate, create or otherwise instigate thought, ideas, and action which will promote the best possible continuing improvement of all phases of science, mathematics, and technology at Western Kentucky University.

II. Membership

- A. The committee membership shall consist of one elected faculty representative from each Department/Academic Unit. Faculty representatives shall be elected for two years. The Departments of Biology, Mathematics, Physics & Astronomy and the School of Engineering and Applied Science shall elect members in even-numbered years, and the Departments of Agriculture, Chemistry, Geography & Geology, Psychological Sciences and SKyTeach, in odd-numbered years. The faculty representatives shall be elected in the spring semester to take office at the beginning of the following fall semester. Newly elected faculty should attend the last meeting of the spring semester. Other faculty may be invited by any member of the Committee to attend meetings as associate contributors without voting privileges. The Dean or their designate may attend in an advisory capacity and will be considered an ex officio member of the committee.
- B. The Chairperson of the Committee shall be elected by the membership from the Ogden Curriculum Committee membership or the committee may elect the Dean/ Associate Dean to serve as Chairperson. The election shall occur at the last meeting in the spring and the Chairperson Elect will assume the position at the first meeting in the fall. The chairperson may designate an Acting Chair in his or her absence.
- C. An absent member may designate an alternate from the same Department to attend a meeting or give their proxy to another member. A member of the Ogden Curriculum Committee cannot hold more than one proxy. The chairperson should be notified by email if a proxy has been given.

III. Meetings

- A. All meetings will be called by the Committee Chairperson. The Curriculum Committee shall meet once a month during the academic year unless changed by a vote of the Committee. The date, time, and place of the meetings are to be determined by the Committee Chairperson.
- B. A quorum will consist of a simple majority of all voting members and a proxy will count toward the determination of a quorum.
- C. A legal vote will consist of a simple majority of the quorum.
- D. Requests for items to be included on the agenda will be submitted electronically to the Dean's Office no later than ten days before the meeting.
- E. The meeting agenda will be posted electronically on the Ogden College Curriculum Committee web site at least four days in advance of the meeting.

IV. Procedural Rules and Regulations

Guidelines for procedures in all Committee activities will be established and reviewed periodically to insure the maximum effectiveness and efficiency of the Curriculum Committee.

- A. The privilege of speaking to the Committee will be acknowledged by the Chair. Special circumstances which involve matters that may be expedited by open discussion without addressing the Chair will be recognized and declared by the Chair of the Committee.
- B.
 1. All recommendations will be presented and outlined in the agenda.
 2. Any action originating in the OCSE Curriculum Committee shall be given a first and second reading before final action is taken on the proposal or recognition.
 3. Recommendations involving amendments to these Standing Rules shall be automatically tabled until the following meeting. Consideration for immediate action can be made only by unanimous consent.
 4. All proposals will be considered for final action at the first reading, unless the Chair or a majority of the members present request a second reading.
- C. If any emergency arises which required immediate action of the Committee, the Chairperson (or Acting Chair) will use the best possible means of obtaining a majority vote by the members.

- D. Subcommittees may be appointed for special investigations by the Chairperson. Subcommittees may include faculty members who are not members of the Curriculum Committee.
- E. A uniform style of presentation will be adhered to concerning all proposals. The Ogden College Curriculum Committee will adopt the templates and format of proposals utilized by the University Curriculum Committee.

Approved April, 1972
OCSE Curriculum Committee

Revised October, 1981
OCSE Curriculum Committee

Revised October, 1984
OCSE Curriculum Committee

Revised December, 2015
OCSE Curriculum Committee

DRAFT