

MEMORANDUM TO: Ogden College of Science and Engineering Curriculum Committee

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

FROM: Andrew Ernest, Chair

SUBJECT: Agenda for Thursday, March 1, 2012 3:45 p.m. in COHH 4123

A. OLD BUSINESS:

- I. Consideration of the minutes of the February 2, 2012, meeting.

B. NEW BUSINESS:

Consent Items

Department of Mathematics and Computer Science

1. Proposal to Delete a Course
 - a. MATH 106, AC Support for MATH 116E
 - b. MATH 116E, College Algebra, 3 hours
 - c. MATH 211, Math for Elementary Teachers I, 3 hours
 - d. MATH 212, Math for Elementary Teachers, II, 3 hours
 - e. MATH 122, Calculus of a Single Variable I, 3 hours
 - f. CS 244, Lab Computer Science I, 1 hour
2. Proposal to Revise Course Prerequisites/Corequisites
 - a. MATH 116, College Algebra, 3 hours
3. Proposal to Revise Course Catalog Listing
 - a. MATH 331, Differential Equations, 3 hours

Action Items

Department of Architectural and Manufacturing Sciences

1. Proposal to Revise a Program
 - a. Ref. #575, Technology Management, 63 hours

Department of Chemistry

1. Proposal to Revise Course Credit Hours
 - a. CHEM 120, College Chemistry I, 3 hours
 - b. CHEM 121, College Chemistry I Lab, 2 hours

C. OTHER BUSINESS

MEMBERS PRESENT:

Dr. Bruce Schulte
Dr. Scott Grubbs
Dr. Hemali Rathnayake
Dr. David Erbach
Dr. James Gary
Dr. Zhonghang Xia

Dr. David Keeling
Dr. Mark Doggett
Dr. John Khouryieh
Dr. Peter Hamburger
Dr. Keith Andrew
Dr. Attila Por

Dr. Kevin Williams for Dr. Cathleen Webb; Dr. Mark Doggett for Dr. Keith Sylvester

Visitors: Dr. Martha Day and Dr. Scott Bonham

FROM: Dr. Bruce Kessler for Dr. Andrew Ernest, Chair

OLD BUSINESS:

Keeling/Hamburger moved approval of the minutes from the December 1, 2011, meeting. Motion passed.

NEW BUSINESS:

Action Items

Department of Biology

Keeling/Erbach moved approval of the proposal to create a new course, BIOL 303, Life Science for Middle Grades Teachers. Motion passed.

Department of Chemistry

Keeling/Erbach moved approval of the proposal to revise course credit hours, CHEM 470, Chemistry/Middle School. Motion passed.

Department of Geography and Geology

Hamburger/Erbach moved approval of the proposal to create a new course, GEOL 305, Earth System Science for Teachers. Motion passed.

Keeling/Hamburger moved approval of the proposal to create a new course, GEOG 439, Atmospheric Modeling. Motion passed.

Keeling/Hamburger moved approval of the proposal to revise a program, Ref. #676, Geology Earth and Space Science Concentration. Motion passed with changes.

Office of the Dean

Keeling/Hamburger moved approval of the proposal to revise a program, Ref. #734, Middle School Science Education (“MSSE”). After discussion motion passed with amendments.

OTHER BUSINESS

There was no other business. Meeting was adjourned at 4:20 p.m.

Proposal Date: Feb. 10, 2012

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

Contact Person: Robin Ayers, robin.ayers@wku.edu, (270) 745-5009

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: MATH 106
- 1.2 Course title: AC support for MATH 116E
- 1.3 Credit hours: NA

2. Rationale for the course deletion:

MATH 116E and MATH 106 are no longer needed due to the change in prerequisites for MATH 116.

MATH 106 has been a mandated academic support class for students enrolled in the enhanced version of College Algebra, MATH 116E, which is also being deleted. Academic support for students enrolled in MATH 116 will still be available in the Mathematics Tutoring Laboratory, which is open five days per week from early morning until late afternoon. Instructors of MATH 116 may require students needing assistance to spend a stipulated amount of time each week receiving academic support outside of the scheduled class meeting time, based upon the needs of each particular student.

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

None

4. Proposed term for implementation:

Fall 2012

5. Dates of prior committee approvals:

Department of Mathematics and Computer Science Feb. 10, 2012

OCSE Curriculum Committee _____

General Education Committee _____

Undergraduate Curriculum Committee _____

University Senate _____

Attachment: Course Inventory Form

Proposal Date: Feb. 10, 2012

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

Contact Person: Robin Ayers, robin.ayers@wku.edu, (270) 745-5009

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: MATH 116E
- 1.2 Course title: College Algebra
- 1.3 Credit hours: 3 hours

2. Rationale for the course deletion:

MATH 116E and its accompanying academic support class, MATH 106, are no longer needed due to the change in prerequisites for MATH 116.

Students enrolled in MATH 116E, the enhanced version of MATH 116, had been required to simultaneously enroll in MATH 106, an academic support class that is also being deleted. Academic support for students enrolled in MATH 116 will still be available in the Mathematics Tutoring Laboratory, which is open five days per week from early morning until late afternoon. Instructors of MATH 116 may require students needing assistance to spend a stipulated amount of time each week receiving academic support outside of the scheduled class meeting time, based upon the needs of each particular student.

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

None

4. Proposed term for implementation:

Fall 2012

5. Dates of prior committee approvals:

Department of Mathematics and Computer Science Feb. 10, 2012

OCSE Curriculum Committee _____

General Education Committee _____

Undergraduate Curriculum Committee _____

University Senate



Attachment: Course Inventory Form

Proposal Date: January 18, 2012

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

Contact Person: Hope Marchionda, hope.marchionda@wku.edu, 745-2961

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: MATH 211
- 1.2 Course title: Math for Elementary Teachers I
- 1.3 Credit hours: 3

2. Rationale for the course deletion:

Math 211 was part of a two-course sequence required for elementary, middle grades, and exceptional education majors. This course sequence, Math 211 and Math 212, has been replaced with a three course sequence (Math 205, Math 206, and Math 308). As a result, Math 211 is no longer offered.

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

None

4. Proposed term for implementation:

Fall 2012

5. Dates of prior committee approvals:

Mathematics & Computer Science Department: 1/27/2012

Ogden Curriculum Committee _____

Professional Education Council _____

Undergraduate Curriculum Committee _____

University Senate _____

Attachment: Course Inventory Form

Proposal Date: January 18, 2012

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

Contact Person: Hope Marchionda, hope.marchionda@wku.edu, 745-2961

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: MATH 212
- 1.2 Course title: Math for Elementary Teachers II
- 1.3 Credit hours: 3

2. Rationale for the course deletion:

Math 212 was part of a two-course sequence required for elementary, middle grades, and exceptional education majors. This course sequence, Math 211 and Math 212, has been replaced with a three course sequence (Math 205, Math 206, and Math 308). As a result, Math 212 is no longer offered.

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

None

4. Proposed term for implementation:

Fall 2012

5. Dates of prior committee approvals:

Mathematics & Computer Science Department: 1-27-2012

Ogden Curriculum Committee _____

Professional Education Council _____

Undergraduate Curriculum Committee _____

University Senate _____

Attachment: Course Inventory Form

Proposal Date: 01/19/2012

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

Contact Person: Nezam Iraniparast, email: nezam.iraniparast@wku.edu, phone: 56218

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: MATH 122
- 1.2 Course title: Calculus of a Single Variable I
- 1.3 Credit hours: 3

2. Rationale for the course deletion:

MATH 122 was the first of a 3-semester calculus sequence (MATH122-132-232) that was equivalent to our previous MATH 126-227 calculus sequence. Two of the courses in the sequence (MATH 132 and MATH 232) have already been deleted. Since we no longer offer MATH 122, it should be deleted as well. Our current calculus sequence is MATH 136-137.

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

4. Proposed term for implementation: Fall 2012

5. Dates of prior committee approvals:

Department of Mathematics and Computer Science: 1/27/2012

OSCS Curriculum Committee _____

Professional Education Council (if applicable) _____

Undergraduate Curriculum Committee _____

University Senate _____

Attachment: Course Inventory Form

Proposal Date: January 24, 2012

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

Contact Person: Zhonghang Xia, zhonghang.xia@wku.edu, 745-6459

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: CS 244
- 1.2 Course title: Lab Computer Science I
- 1.3 Credit hours: 1

2. Rationale for the course deletion:

CS 244 was the lab component of CS 240 (a 3-hour course) whose number was changed to CS 180 in 2010. At that time, the content of CS 244 was incorporated into CS 180 (a 4-hour course); therefore, CS 244 is no longer needed.

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

N/A

4. Proposed term for implementation:

Fall 2012

5. Dates of prior committee approvals:

Department of Math and CS _____ Feb. 7, 2012 _____

Ogden College Curriculum Committee _____

Undergraduate Curriculum Committee _____

University Senate _____

Attachment: Course Inventory Form

Proposal Date: Feb. 10, 2012

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

Contact Person: Robin Ayers, robin.ayers@wku.edu, 270-745-5009

1. Identification of course:

- 1.1 Course prefix (subject area) and number: MATH 116
- 1.2 Course title: College Algebra
- 1.3 Credit hours: 3 hours

2. Current prerequisites/corequisites/special requirements:

Prerequisites: High school Algebra I and II and satisfactory score on Math Placement Exam; or DMA 096C with a grade of C or better. Student must enroll in MATH 116E if his/her DMA 096C grade was a C, or previous MATH 116 grade was D, F, or W, or Math ACT and MPE scores indicate need for enhanced version. Corequisite for MATH 116E: MATH 106 Academic Support for MATH 116E. Special Requirement: Students who withdraw from MATH 106 must also withdraw from MATH 116E.

3. Proposed prerequisites/corequisites/special requirements:

Prerequisites: Math ACT score of 22 or better **or** a score of 14 or better on the WKU Math Placement Exam **or** a score of 14 or better on the KYOTE **or** a score of 50 or better on the COMPASS (College Algebra domain) **or** DMA 096C with a grade of C or better.

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

The Kentucky Council on Post-Secondary Education (CPE) has mandated that students with Math ACT scores of 22 or better be permitted to enroll in College Algebra. The Kentucky Online Testing Program (KYOTE) is an online placement and testing system endorsed by the CPE. COMPASS is a computer-adaptive college placement test offered throughout the United States. WKU is now honoring scores on those placement tests in addition to the WKU Math Placement Exam (MPE). Specific scores on each of these tests are now included in the prerequisites in order to provide more useful information to students and advisors.

All references to MATH 116E (and MATH 106) have been omitted from the prerequisites because that enhanced version of College Algebra is no longer being offered.

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

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

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

Department of Mathematics and Computer Science Feb. 10, 2012

OCSE Curriculum Committee _____

General Education Committee _____

Undergraduate Curriculum Committee _____

University Senate _____

Attachment: Course Inventory Form

Proposal Date:01/19/2012

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

Contact Person: Nezam Iraniparast, email: nezam.iraniparast@wku.edu, phone: 56218

1. Identification of course:

- 1.1 Course prefix (subject area) and number: MATH 331
- 1.2 Course title: DIFFERENTIAL EQUATIONS
- 1.3 Credit hours: 3

2. Current course catalog listing: Methods of solution of differential equations, existence and nature of solutions, systems of differential equations, applications, and numerical solutions.

3. Proposed course catalog listing: Methods of solution of differential equations, existence and nature of solutions, Laplace transform method, infinite series and numerical solutions, and applications.

4. Rationale for revision of the course catalog listing:

The subject of “systems of differential equations” is already covered in the newly created course MATH 370. This topic should be replaced with the “infinite series solutions” in MATH 331. For emphasis, we mention the Laplace transform method specifically, even though it could be envisioned as just another method in the general framework of “methods of solution”.

5. Proposed term for implementation: Fall 2012

6. Dates of prior committee approvals:

Department of Mathematics and Computer Science: 1-27-2012

OSCS Curriculum Committee _____

Professional Education Council (if applicable) _____

Undergraduate Curriculum Committee _____

University Senate _____

Attachment: Course Inventory Form

Proposal Date: 2-10-12

**Ogden College of Sciences and Engineering
Department of Architectural and Manufacturing Sciences
Proposal to Revise a Program
(Action Item)**

Contact Person: Greg Arbuckle, greg.arbuckle@wku.edu 270.745.6592

1. Identification of program:

- 1.1 Reference number: 575
- 1.2 Current program title: Technology Management
- 1.3 Credit hours: 63

2. Identification of the proposed program changes:

- o Change the description of the technical course requirement.

3. Detailed program description:

Technology Management Major: (OLD) 63 hrs	Technology Management Major: (NEW) 63 hrs
Technical Course Transfer: 24 hrs Technical courses transferred from a technical school, college or university. * (Courses will be listed individually and will be included in students GPA)	Technical Courses: 24 hrs Students should work with their advisor to select 24 hours of relevant coursework to satisfy the technical course requirement in their major. (Courses will be listed individually and will be included in student's GPA)
Technology Management Requirements: 39 hrs	Technology Management Requirements: 39 hrs
AMS 271 Industrial Statistics (3)	AMS 271 Industrial Statistics (3)
AMS 310 Work Design/Ergonomics (3)	AMS 310 Work Design/Ergonomics (3)
AMS 356 Systems Design & Operations (3)	AMS 356 Systems Design & Operations (3)
AMS 394 Lean Manufacturing (3)	AMS 394 Lean Manufacturing (3)
AMS 371 Quality Assurance (3)	AMS 371 Quality Assurance (3)
AMS 390 Project Planning and Control (3)	AMS 390 Project Planning and Control (3)
AMS 430 Tech Mgmt/Supervision/Team Bldg (3)	AMS 430 Tech Mgmt/Supervision/Team Bldg (3)
AMS 490 Senior Research (3)	AMS 490 Senior Research (3)
ENG 307 Technical Writing (3)	ENG 307 Technical Writing (3)
Advisor Approved Upper Division Electives 12 hrs	Advisor Approved Upper Division Electives 12 hrs
* Or other advisor approved courses.	

4. Rationale for the proposed program change:

Technology Management at WKU has been a 2 + 2 program designed specifically for students who currently hold a certificate or associates degree from a technical

school, two-year college or four-year institution. This proposed change in the curriculum will allow students to enter the Technology Management program as freshmen or after earning an associate's degree from WKU or elsewhere.

5. Effective catalog year:

Fall 2012

6. Dates of prior committee approvals:

Architectural and Manufacturing Sciences Department 17 Feb. 2012

Ogden College Curriculum Committee _____

University Curriculum Committee _____

University Senate _____

Proposal Date: February 10, 2012

**Ogden College of Science & Engineering
Department of Chemistry
Proposal to Revise Course Credit Hours
(Action Item)**

Contact Person: Hemali Rathnayake, Hemali.rathnayake@wku.edu, 270-745-6238

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: CHEM 120
- 1.2 Course title: College Chemistry I
- 1.3 Credit hours: 4 hrs

2. Proposed course credit hours: 3

3. Rationale for the revision of course credit hours:

The current 4/1 credit hour format for CHEM 120/121 is not working well for content and scheduling reasons. The additional hour in the CHEM 121 laboratory will allow more time for pre-laboratory lectures and avoid the rush to complete laboratory experiments. We plan to utilize existing technology to standardize key material in CHEM 121 recitations to prevent any inconsistencies in coverage within CHEM 121, since most students do not have the same instructor for both CHEM 120 and 121. The switch to the 3/2-credit format also will make it possible to schedule CHEM 120 using only one lecture block. The current four-credit format overlaps two class periods.

4. Proposed term for implementation: Spring 2013

5. Dates of prior committee approvals:

Chemistry Department:	February 10 2012
OCSE Curriculum Committee:	-----
Professional Education Council	_____
General Education Committee	_____
Undergraduate Curriculum Committee	_____
University Senate	_____

Attachment: Course Inventory Form

Proposal Date: February 10, 2012

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

Contact Person: Hemali Rathnayake, Hemali.rathnayake@wku.edu, 270-745-6238

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: CHEM 121
- 1.2 Course title: College Chemistry I Lab
- 1.3 Credit hours: 1

2. Proposed course credit hours: 2 hrs

3. Rationale for the revision of course credit hours:

The current 4/1 credit hour format for CHEM 120/121 is not working well for content and scheduling reasons. The additional hour in the CHEM 121 laboratory will allow more time for pre-laboratory lectures and avoid the rush to complete laboratory experiments. We plan to utilize existing technology to standardize key material in CHEM 121 recitations to prevent any inconsistencies in coverage within CHEM 121, since most students do not have the same instructor for both CHEM 120 and 121. The switch to the 3/2-credit format also will make it possible to schedule CHEM 120 using only one lecture block. The current four-credit format overlaps two class periods.

4. Proposed term for implementation: Spring 2013

5. Dates of prior committee approvals:

Chemistry Department:	February 10 2012
OCSE Curriculum Committee:	-----
Professional Education Council	_____
General Education Committee	_____
Undergraduate Curriculum Committee	_____
University Senate	_____

Attachment: Course Inventory Form