MEMORANDUM TO: Ogden College of Science and Engineering Curriculum Committee

Dr. Katie Algeo
Dr. Taha Alyousef
Dr. Doug Harper
Dr. Phil Lienesch
Dr. Jeremy Maddox
Dr. Michelle Jackson
Dr. Andy Mienaltowski
Dr. Les Pesterfield
Dr. Todd Willian

FROM: Kenneth Crawford, Chair

SUBJECT: Agenda for Thursday, February 7, 2018 4:00 p.m. in OCH 1028

A. OLD BUSINESS:

I. Consideration of the minutes of the December 6, 2018 meeting.

B. NEW BUSINESS:

Type of item	Description of Item & Contact Information
Consent	**Proposal to Revise Course Prerequisites/Corequisites** AMS 395, Fundamentals of HACCP, 3 hrs. Contact: John Khouryieh, hanna.khouryieh@wku.edu, x54126
Action	**Proposal to Create a New Course** DATA 301, Big Data and Society, 3 hrs. Contact: Qi Li, qili@wku.edu, x56225
Action	**Proposal to Create a New Course** MATH 105, Corequisite Support for Algebra, 1 hr. Contact: Leslie Plumlee, lesslie.plumlee@wku.edu, x56210
Action	**Proposal to Create a Temporary Course (Second Offering)** PSYS 175, University Experience, 1 hr. Contact: Andrew Mienaltowski, Andrew.mienaltowski@wku.edu, x2353

C. OTHER BUSINESS

Minutes – OCSE Curriculum Committee **December 6, 2018**

Members Present:
Dr. Katie Algeo
Dr. Taha Alyousef
Dr. Phil Lienesch
Dr. Melanie Autin for Dr. Michelle Jackson
Dr. Andy Mienaltowski
Dr. Les Pesterfield
Dr. Todd Willian
Guest: Dr. Bryan Reaka & Qi Li

FROM: Ken Crawford, Chair

The meeting was called to order at 4:00pm.

OLD BUSINESS:
Autin/Pesterfield moved to approve of the minutes of the November, 2018 meeting. Motion passed.

NEW BUSINESS:

Consent Agenda
The Proposal to Revise Course Prerequisites/Corequisites: AMS 490E was pulled from the agenda.
The Proposal to Revise Course Prerequisites/Corequisites: CS 360 was moved to the action agenda.
Autin/Mientaltowski moved to approve remaining consent agenda items: Proposal to Revise Course Prerequisites/Corequisites: AMS 490 and MATH 183. Motion passed.

Action Agenda

School of Engineering & Applied Sciences
Algeo/Willian moved to table Proposal to Revise Course Prerequisites/Corequisites: CS 360. Proposal was tabled.

Mientaltowski/Autin moved to table Proposal to Create a New Course: DATA 301. Proposal was tabled.

Mathematics Department
Autin/Algeo moved to approve Proposal to Revise a Program, Ref. 528, Major in Mathematics. Motion passed.

Mientaltowski/Pesterfield moved to approve Proposal to Revise a Program: Ref. 728, Major in Mathematics. Motion passed.

Psychological Sciences Department
Autin/Willian moved to approve Proposal to Make Multiple Revisions to a Course: PSYS 413. Motion passed.

OTHER BUSINESS: None

Meeting Adjourned 4:29

Proposal Date: 11/16/2018

Ogden College of Science & Engineering
School of Engineering & Applied Sciences
Proposal to Revise Course Prerequisites/Corequisites
(Consent Item)

Contact Person: John Khouryieh, hanna.khouryieh@wku.edu, 270-745-4126

1. **Identification of course:**
   - 1.1 Course prefix (subject area) and number: AMS395
   - 1.2 Course title: Fundamentals of HACCP

2. **Current prerequisites/corequisites/special requirements: AMS301**

3. **Proposed prerequisites/corequisites/special requirements: Junior Standing**

4. **Rationale for the revision of prerequisites/corequisites/special requirements:**
   The Hazard Analysis and Critical Control Point (HACCP) system is a food safety management program that is implemented to prevent food safety problems from occurring rather than trying to identify them after they are present. The course content does not require the knowledge of the science of food.
   Below are some examples of universities that offer this course without a prerequisite: Cornel University, North Carolina State University, University of Florida, Pennsylvania State University, Iowa State University, Kansas State University, Texas A&M University, University of Arkansas

5. **Effect on completion of major/minor sequence:**
   This will allow students to be able to continue on their appropriate matriculation through the Food Processing & Technology Certificate program.

6. **Proposed term for implementation: Summer 2019**

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

School of Engineering and Applied Sciences	**12/07/2018**
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

(Action Item)

Proposal to Create a New Course: DATA 301
Ogden College
Department/Unit: School of Engineering & Applied Sciences

Section 1: Proponent Contact Information

1.1 Name/Title: Qi Li/Associate Professor
1.2 Email address: qi.li@wku.edu
1.3 Phone # (270)7456225

Section 2: Course Catalog Information

2.1 Course prefix (subject area) and number: DATA 301

2.2 Course CIP code: 11.0802

2.3 Course title: Big Data with its Applications

2.4 Abbreviated Course title: Big Data with its Applications

2.5 Credit hours/Variable credit: 3

2.6 Repeatability: N/A

2.7 Course Term: Is this course intended to span more than a single term?

YES NO

2.8 Course Catalog Description: The course examines how an individual, company, or organization interacts with a system of big data including i) data collection (policy and mechanisms), ii) data protection, iii) data analytics, and iv) inference and decision making. Case studies of big data are drawn from areas such as politics, social network, humanities, and healthcare.

2.9 Prerequisite: Completion of Colonnade quantative reasoning course and 21 hours of Foundations & Explorations courses.

2.10 Additional Enrollment Requirements: N/A

2.11 Other Special Course Requirements: N/A

2.12 Grade Type: A-F

2.13 Schedule Type: Lecture

Section 3: Description of proposed course

3.1 Course Content Summary: Students will understand interactions between big data and society and ways big data is reshaping society, such as humanities, politics, public health, individual privacy, etc. Students will also understand the role of data analytics in big data. Data analysis is more than a tool. With the support of data analytics, people can create intelligent environments that react intelligently to presence and activities of human beings.

3.2 Learning Outcomes:

Upon completion of the course, students will be able to

- Understand how individuals, companies and organizations use big data.
- Analyze how a system of big data evolves along with the development of technologies and the increasing influence on various areas.
- Analyze how technologies are integrated to build up the infrastructure of big data.
- Compare the study of data collection policy and the analysis of a data-driven decision making system.
- Specify the tradeoff between quantity and quality of data.
- Analyze benefits and challenges of using big data.
- Evaluate how context knowledge helps generate reasonable inference and personal or organizational decisions.
- Understand the ethical implication of big data on society.

3.3 Assessment/Evaluation: Students will complete a series of homework assignments, group discussion assignments and written tests.

Section 4: Rationale

4.1 Reason for developing this proposed course: The term big data was introduced from the discipline of Computer Science, while it has been widely used in many other disciplines. This course will give students experience to analyze how an individual and company/organization are interacted with a system of big data from multi-discipline perspectives. Students will learn how to apply qualitative reasoning and quantitative methods to examine interaction between big data and individuals, which in turn help them adapt to the transformative society.

4.2 Relationship to similar courses offered by other university departments/units:

- Do any other courses already being offered by other university departments/units share content with this proposed course? YES NO

- Are any of the proposed pre/co-requisites for this course offered by another university department/unit? YES NO

- If the answer to both questions is NO, simply proceed to item 5.

- If the answer to either of those questions is YES, indicate here who in the affected departments/units was consulted, and the dates of those consultations: Dr. Mark Ciampa and Dr. Ray Blackenship in CIS were consulted in 01/10/2019.

Section 5: Projected Enrollments/Resources

5.1 How many students per section are expected to enroll in this proposed course?
40

5.2 How many sections of this course per academic year will be offered?
1

5.3 How many students per academic year are expected to enroll?
40

5.4 **How were these projections calculated? Explain any supporting evidence/data you have for arriving at these projections:** Big data has been quickly emerging to different disciplines and there is a high demand of workforce on big data. For example, Indeed, a online job hunting company, lists 64668 jobs on Sep 28, 2018.

5.5 Proposed method of staffing: Current staffing is sufficient.

5.6 Instructional technology resources: The unit's current instructional technology resources sufficient to support this course.

5.7 Library resources: Will this proposed course require the use of library resources (books, journals, reference materials, audio-visual materials, electronic databases, etc.)? YES NO

Section 6: Proposed term for implementation: Fall 2019

Section 7: Supplemental Documentation (Optional): If needed, append any supplemental documentation here.

(Action Item)

Proposal to Create a New Course: MATH 105: Corequisite Support for Algebra
Ogden College
Department/Unit: Mathematics

Section 1: Proponent Contact Information

1.1 Name/Title: Leslie Plumlee
1.2 Email address: leslie.plumlee@wku.edu
1.3 Phone #: 270-745-6210

Section 2: Course Catalog Information

2.1 Course prefix (subject area) and number: MATH 105

2.2 Course CIP code: 27.0101

2.3 Course title: Corequisite Support for Algebra

2.4 Abbreviated Course title: Coreq Support for Algebra

2.5 Credit hours/Variable credit: 1

2.6 Repeatability: N/A

2.7 Course Term: Is this course intended to span more than a single term?

YES [NO]

2.8 Course Catalog Description: Corequisite support for students in Math 115C, Math 116C, or Math 123. Topics include functions, graphs and fundamental concepts of algebra.

2.9 Prerequisite/Corequisites/Restrictions: Corequisites: One of the following: (MA 115C or MA 116C) and (Math ACT <20 and MPE <12) or MATH 123 and (Math ACT <22 and MPE <14)

2.10 Additional Enrollment Requirements: N/A

2.11 Other Special Course Requirements: Exams for this course will be administered outside the scheduled class time.

2.12 Grade Type: Standard

2.13 Schedule Type: Lab

Section 3: Description of proposed course

3.1 Course Content Summary: This course will build basic to intermediate algebra skills via adaptive learning software, with classroom support from graduate students in Mathematics.

3.2 Learning Outcomes: Upon successful completion of this course, students should be able to:

- Solve linear and quadratic equations
- Solve linear and absolute value inequalities
- Write and graph linear equations with two variables
- Factor algebraic expressions
- Evaluate polynomials and perform polynomial operations
- Evaluate a function for a specified value
- Perform operations with rational expressions
- Write a radical in simplest radical form

3.3 Assessment/Evaluation: Students will progress through adaptive learning software to develop skills. When their work indicates mastery of assigned topics, the students will take proctored exams to verify that mastery has been achieved.

Section 4: Rationale

4.1 Reason for developing this proposed course: Formerly, students who lacked the necessary preparation (as determined by an inadequate standardized test score) for admission to MATH 115, MATH 116, MATH 123 would enroll in Basic Algebra (DMA 055C) or Intermediate Algebra (DMA 096C) for remediation. Pursuant to the Council on Post-Secondary Education directive that freshmen be admitted directly into credit-bearing courses, this option will no longer exist as of Fall 2019. This course will provide developmental-level remediation to students concurrent with their enrollment in the credit-bearing 100 level courses.

4.2 Relationship to similar courses offered by other university departments/units:

- Do any other courses already being offered by other university departments/units share content with this proposed course? YES NO
- Are any of the proposed pre/co-requisites for this course offered by another university department/unit? YES NO

Section 5: Projected Enrollments/Resources

5.1 How many students per section are expected to enroll in this proposed course? 30

5.2 How many sections of this course per academic year will be offered? 15

5.3 How many students per academic year are expected to enroll? 400-500

5.4 How were these projections calculated? Explain any supporting evidence/data you have for arriving at these projections. Enrollment trends in DMA 055C and DMA 096C for the past three academic years were used for estimation.

5.5 Proposed method of staffing: The lab sections will be staffed with Mathematics Graduate Assistants with oversight by a designated faculty member. Funding for additional graduate assistantships is being requested through Ogden College.

5.6 Instructional technology resources: The department currently has one classroom equipped with 30 desktop computers, which will house this course. If enrollments exceed initial estimates, access to additional classrooms with computers may be needed.

5.7 Library resources: Will this proposed course require the use of library resources (books, journals, reference materials, audio-visual materials, electronic databases, etc.)? YES NO

Section 6: Proposed term for implementation: Fall 2019

Section 7: Supplemental/Supporting Documentation:

Proposal Date:

Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Create a Temporary Course
(Action Item - Second Offering)

Contact Person: Andrew Mienaltowski, andrew.mienaltowski@wku.edu, (270) 745-2353

1. **Identification of proposed course:**
   - 1.1 Course prefix (subject area) and number: PSYS 175
   - 1.2 Course title: University Experience
   - 1.3 Abbreviated course title: PSYS UNIV EXPERIENCE (maximum of 30 characters or spaces)
   - 1.4 Credit hours: 1
   - 1.5 Schedule type: Seminar
   - 1.6 Prerequisites/corequisites: None
     - 1.6.1 Restrictions: For beginning college freshmen or transfer students with fewer than 36 semester hours of credit
   - 1.7 Grade type: Standard letter grade
   - 1.8 Course description: Transition to university experience for Psychological Science majors. Topics include learning skills, campus resources, research tools, exploration of majors, specializations within discipline, career trends, and professional development.

2. **Rationale**
   - 2.1 Reason for offering this course on a temporary basis:
     Courses like UC 175 provide academic programs with an opportunity to impart useful information to undergraduates that can benefit students as they transition to university experiences, including choosing academic tracks, considering future career directions, and utilizing campus resources to stay connected to the academic program. This is vital to the psychological sciences, as students have many possible tracks of study to select from while making progress toward a career. Because of the curriculum freeze, an application for a new course was not viewed as prudent. Such a proposal would be routed through the appropriate curriculum channels after the freeze pending CAPE.
   - 2.2 Relationship of the proposed course to courses offered in other academic units:
     No other department was consulted. Students who complete this course would not take a university experience course offered by other units.

3. **Description of proposed course**
   - 3.1 Course content outline
     The proposed course will be offered in seminar format; students will attend for one hour per week and learn about a variety of topics that are relevant to their orientation to the university as a psychological science student. Topics to be discussed include, but are not limited to:
     - Professional training tracks within the psychological sciences
     - Development of a personal plan for academic success

- Utilization of campus information technology
- Navigation of campus resources, from library to student organizations
- Financial considerations within discipline-specific training
- Student engagement through internships and research
- Identity development and maintenance as a professional in the psychological sciences
- Orientation to scientific discovery
- The scientist-practitioner model
- Preparation for careers in psychological science

3.2 Tentative text(s)
Kuther, T. L. (2015). *The Psychology Major's Handbook, 4th ed.* Wadsworth.
Dunn, D. S., & Halonen, J. S. (2016). *The Psychology Major's Companion: Everything You Need to Know to Get Where You Want to Go*. Worth.

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

4.1 Reason for offering this course a second time on a temporary basis:
Would like to have the course on the Fall schedule for incoming freshmen to register for. Adding a new course would not be done until after the curriculum freeze has been lifted.

4.2 Term course was first offered: Fall 2018

4.3 Enrollment in first offering: 24 students registered for this course in Fall 2018

5. Term of Implementation: Fall 2019

6. Dates of review/approvals:

Department of Psychological Sciences	**2/1/19**
Dean, Ogden College of Science & Engineering	
Office of the Provost	