

Senate Report

Undergraduate Curriculum Committee

September 28, 2017

Meeting: 3:45 pm, WAB 227

From: Janet Applin, UCC Chair

The Undergraduate Curriculum Committee submits the following report for consideration to the University Senate:

University College	
Type of Action	Description of Item and Contact Information
Action	Proposal to Create a New Course Item: SPS 395 Contact Person: Jeff Butterfield Email: jeff.butterfield@wku.edu Phone: 745-8973
Action	Proposal to Create a New Course Item: SPS 399 Contact Person: Jeff Butterfield Email: jeff.butterfield@wku.edu Phone: 745-8973
Action	Proposal to Create a New Course Item: SUS 276 Contact Person: S. Ellen Godbey Email: sherrie.godbey@wku.edu Phone: 780-2578

College of Education and Behavioral Sciences	
Type of Action	Description of Item and Contact Information
Consent	Proposal to Revise Course Prerequisites/Corequisites Item: PSY 371, The Psychology of Sales Behavior Contact: Joe Cangemim Email: joseph.cangemi@wku.edu Phone: (270) 745-2343

Consent	Proposal to Revise Course Prerequisites/Corequisites Item: PSY 436, Applied Cognitive Psychology Contact: Jenni Redifer Email: jenni.redifer@wku.edu Phone: (270) 745-4081
Consent	Proposal to Suspend a Program Item: 411, Minor in Library Media Education Contact: Andi Paganelli Email: andrea.paganelli@wku.edu Phone: (270) 745-4420

College of Health and Human Services	
Type of Action	Description of Item and Contact Information
Consent	Revise Course Grade Type NURS 449 Clinical: Community Health Nursing Contact: Maribeth Wilson, maribeth.wilson@wku.edu , 745-6916

Ogden College of Science and Engineering	
Type of Action	Description of Item and Contact Information
Consent	Proposal to Suspend a Course CHEM 102, Introduction to Chemistry Laboratory, 1 hr. Contact: Jeremy B. Maddox, jeremy.maddox@wku.edu , 5-8725
Consent	Proposal to Suspend a Course CHEM 240, Introduction to Organic Chemistry, 3 hrs. Contact: Jeremy B. Maddox, jeremy.maddox@wku.edu , 5-8725
Consent	Proposal to Suspend a Program Ref. 340, Minor in Coal Chemistry, 20-22 hrs. Contact: Jeremy B. Maddox, jeremy.maddox@wku.edu , 5-8725
Consent	Proposal to Delete a Course CE 331, UK-Transportation Engineering, 3 hrs. Contact: Mark Cambron, mark.cambron@wku.edu , 5-8868
Consent	Proposal to Delete a Course CE 341, UK-0Fluid Thermal Science, 3 hrs. Contact: Mark Cambron, mark.cambron@wku.edu , 5-8868
Consent	Proposal to Delete a Course CE 351, UK-Introduction to Environmental Science, 3 hrs. Contact: Mark Cambron, mark.cambron@wku.edu , 5-8868
Consent	Proposal to Delete a Course CE 373, UK-Structural Analysis, 3 hrs. Contact: Mark Cambron, mark.cambron@wku.edu , 5-8868

Consent	Proposal to Delete a Course CE 483, UK-Elementary Structural Design, 3 hrs. Contact: Mark Cambron, mark.cambron@wku.edu , 5-8868
Consent	Proposal to Revise Course Catalog Listing CS 360, Software Engineering I, 3 hrs. Contact: Huanjing Wang, Huanjing.wang@wku.edu , 5-2672
Consent	Proposal to Revise Course Prerequisites/Corequisites CS 405, Numerical Analysis I, 3 hrs. Contact: Huanjing Wang, Huanjing.wang@wku.edu , 5-2672
Consent	Proposal to Revise Course Prerequisites/Corequisites EM 303, Mechanics of Deformable Solids, 3 hrs. Contact: Chris Byrne, chris.byrne@wku.edu , 5-6286
Consent	Proposal to Revise Course Prerequisites/Corequisites EM 313, Dynamics, 3 hrs. Contact: Chris Byrne, chris.byrne@wku.edu , 5-6286
Consent	Proposal to Revise Course Prerequisites/Corequisites ME 176, Mechanical Engineering Freshman Design I, 1 hr. Contact: Chris Byrne, chris.byrne@wku.edu , 5-6286
Consent	Proposal to Revise Course Prerequisites/Corequisites ME 200, Sophomore Design, 3 hrs. Contact: Chris Byrne, chris.byrne@wku.edu , 5-6286
Consent	Proposal to Revise Course Prerequisites/Corequisites ME 240, Materials and Methods of Manufacturing, 3 hrs. Contact: Chris Byrne, chris.byrne@wku.edu , 5-6286
Consent	Proposal to Revise Course Prerequisites/Corequisites ME 241, Materials and Methods of Manufacturing Laboratory, 1 hr. Contact: Chris Byrne, chris.byrne@wku.edu , 5-6286
Consent	Proposal to Revise Course Prerequisites/Corequisites ME 300, Junior Design, 3 hrs. Contact: Chris Byrne, chris.byrne@wku.edu , 5-6286
Consent	Proposal to Revise Course Prerequisites/Corequisites ME 310, Engineering Instrumentation and Experimentation, 3 hrs. Contact: Chris Byrne, chris.byrne@wku.edu , 5-6286
Consent	Proposal to Revise Course Prerequisites/Corequisites ME 325, Heat Transfer, 3 hrs. Contact: Chris Byrne, chris.byrne@wku.edu , 5-6286
Consent	Proposal to Revise Course Prerequisites/Corequisites ME 330, Fluid Mechanics, 3 hrs. Contact: Chris Byrne, chris.byrne@wku.edu , 5-6286
Consent	Proposal to Revise Course Prerequisites/Corequisites ME 332, Fluid Mechanics Laboratory, 1 hr. Contact: Chris Byrne, chris.byrne@wku.edu , 5-6286
Consent	Proposal to Revise Course Prerequisites/Corequisites ME 333, Heat Transfer Lab, 1 hr. Contact: Chris Byrne, chris.byrne@wku.edu , 5-6286

Consent	Proposal to Revise Course Prerequisites/Corequisites ME 344, Mechanical Design, 3 hrs. Contact: Chris Byrne, chris.byrne@wku.edu , 5-6286
Consent	Proposal to Revise Course Prerequisites/Corequisites BDAS 495, Brewing & Distilling Arts & Sciences, 3 hrs. Contact: Andrew McMichael, Andrew.mcmichael@wku.edu , 5-6538 Contact: Cate Webb, Cathleen.webb@wku.edu , 5-6181
Action	Proposal to Create a New Course PSYS 425, Developmental Psychopathology, 3 hrs. Contact: Diane Lickenbrock, diane.lickenbrock@wku.edu , 5-4264
Action	Proposal to Create a New Course PSYS 442, Psychology of Suicide and Self-Injury, 3 hrs. Contact: Diane Lickenbrock, diane.lickenbrock@wku.edu , 5-4264
Action	Proposal to Create a New Course CS 372, Mobile App Development, 3 hrs. Contact: Huanjing Wang, Huanjing.wang@wku.edu , 5-2672
Action	Proposal to Create a New Course ENGR 490, Senior Seminar, 2 hrs. Contact: Stacy Wilson, stacy.wilson@wku.edu , 5-6394
Action	Proposal to Create a New Course ENGR 491, Senior Project, 3 hrs. Contact: Stacy Wilson, stacy.wilson@wku.edu , 5-6394
Action	Proposal to Revise a Program Ref. 518, Architectural Science, 89 hrs. Contact: Neal Downing, neal.downing@wku.edu , 5-6302
Action	Proposal to Revise a Program Ref. 534P, Civil Engineering-Prep, 25 hrs. Contact: Shane Palmquist, shane.palmquist@wku.edu , 5-2919
Action	Proposal to Revise a Program Ref. 534, Civil Engineering-Prep, 130 hrs. Contact: Shane Palmquist, shane.palmquist@wku.edu , 5-2919
Action	Proposal to Revise a Program Ref. 537, Electrical Engineering, 57 hrs. Contact: Walter Collett, walter.collett@wku.edu , 5-2016
Action	Proposal to Revise a Program Ref. 543, Mechanical Engineering, 122.5 or 123.5 hrs. Contact: Chris Byrne, chris.byrne@wku.edu , 5-6286

**University College
School of Professional Studies
Proposal to Create a New Course
(Action Item)**

Contact Person: Jeff Butterfield; jeff.butterfield@wku.edu; 745-8973

1. Identification of proposed course:

- 1.1 Course prefix (subject area) and number: SPS 395
- 1.2 Course title: Special Topics in Professional Studies
- 1.3 Abbreviated course title: Special Topics PS
- 1.4 Credit hours and contact hours: 3 credit hours Variable Credit: NO
- 1.5 Grade Type: Std. Letter Grade
- 1.6 Prerequisites/corequisites: Junior standing or permission of the instructor
- 1.7 Course Description: A detailed study of a specialized topic in professional studies.

2. Rationale:

- 2.1 Reason for developing the proposed course: The development of this special topics course will allow students to participate in a substantive investigation of a particular issue or topic in professional studies not covered elsewhere in the curriculum.
- 2.2 Projected enrollment in the proposed course: 20-25 students per section.
- 2.3 Relationship of the proposed course to courses now offered by the department: This course will be more varied and flexible than current offerings, allow faculty to teach topics related to their specialties and academic interests.
- 2.4 Relationship of the proposed course to courses offered in other departments: Many WKU departments offer special topics courses. Examples include: ENG 399 – Topics in English, CIS 440 – Selected Topics - Information Systems, PSY 490 – Special Projects in Psychology, BIOL 475 – Selected Topics in Biology, SWRK 490 – Selected Topics in Social Work, and GWS 470 – Special Topics in Women’s Studies.
- 2.5 Relationship of the proposed course to courses offered in other institutions: Many majors around the country offer a Special Topics course that allows students to examine a particular topic in depth. Examples in the field of Professional Studies include:
 - Drexel University PRST 380 Advanced Special Topics in PRS
 - Mississippi University for Women BU 399 Special Topics in Business SUNY
 - Ulster BUS 280 Business & Professional Studies Special Topics
 - University of Massachusetts CAPS 118 Special Topics Professional Studies

3. Discussion of proposed course:

- 3.1 Schedule Type: L

- 3.2 Learning Outcomes: Students will examine a complex issue or topic from multiple perspectives and develop an integrated understanding of the issue or topic through a variety of teaching and assessment methods.
- 3.3 Content outline: The outline of the special topics course will vary according to the subject under study.
- 3.4 Student expectations and requirements: Student expectations may include reading from assigned journals and texts, attending class lectures, participating in class discussions, active contribution to group work, and completion of a final project that demonstrates mastery and application of the class subject area. A variety of shorter assignments, quizzes and written reflections will be used to gauge student understanding.
- 3.5 Tentative texts and course materials: Texts and reference materials will vary according to the instructor and topic.

4. **Resources:**

- 4.1 Library resources: Adequate
- 4.2 Computer resources: Adequate

5. **Budget implications:**

- 5.1 Proposed method of staffing: This is not a required course and will only be offered on occasion. As such, current faculty in University College will be adequate to staff the sections offered.
- 5.2 Special equipment needed: None
- 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:**

School of Professional Studies Curriculum Committee	<u>05/04/2017</u>
University College Curriculum Committee	<u>09/07/2017</u>
Undergraduate Curriculum Committee	<u>10/02/2017</u>
University Senate	_____

Attachment: Course Inventory Form

**University College
School of Professional Studies
Proposal to Create a New Course
(Action Item)**

Contact Person: Jeff Butterfield; jeff.butterfield@wku.edu 745-8973

1. Identification of proposed course:

- 1.1 Course prefix (subject area) and number: SPS 399
- 1.2 Course title: Independent Study in Professional Studies
- 1.3 Abbreviated course title: Ind. Study in PS
(maximum of 30 characters or spaces)
- 1.4 Credit hours: 1-3; repeatable two times for up to 6 credits Variable = YES
- 1.5 Grade type: standard letter grade
- 1.6 Prerequisites/corequisites: Permission of the instructor.
- 1.7 Course description: Individual research, literature review or professional development project in a specific area of professional studies, in close cooperation with supervising faculty.

2. Rationale:

- 2.1 Reason for developing the proposed course: The present curriculum covers many aspects of Professional Studies, but not all. Students who want to explore alternative aspects of Professional Studies presently have no mechanism to conduct research and further their understanding of that field. The proposed Independent Studies course will enhance students' learning experiences and afford them a degree of subject flexibility. The course supports the University mission to provide pathways for people to gain the knowledge and credentials they need to be productive, engaged, and socially responsible professionals.
- 2.2 Projected enrollment in the proposed course: one to three students per semester. We do not anticipate students outside the School of Professional Studies taking this course.
- 2.3 Relationship of the proposed course to courses now offered by the department: This course would be more tailored to a particular student's needs than are current course offerings.
- 2.4 Relationship of the proposed course to courses offered in other departments: various other academic departments at WKU offer independent study courses for similar reasons as those proposed. Examples include:
FLK 479: Directed Independent Research in Folklore
GERM 499: Advanced Studies in German
GWS 499: Directed Study
MATH 475: Selected Topics in Mathematics
SWRK 496: Directed Study

- 2.5 Relationship of the proposed course to courses offered in other institutions: Such courses are fairly standard. For example, the following universities offer similar courses.

Drexel University PRST I599 Independent Study in PRST

Eastern Illinois University KSS 4741 • Independent Study

San Diego State: PSFA 499. Special Study

University of Connecticut: GPS3099. Independent Study

University of Wisconsin Eau Claire: PSAS 499 Independent Study- Juniors/Seniors

3. Discussion of proposed course:

- 3.1 Schedule type: I
- 3.2 Learning Outcomes: students will analyze, synthesize, research, or explore various topics in professional studies with the primary learning outcome of gaining an overview or deeper understanding of a chosen aspect of the field.
- 3.3 Content outline:
- Under the guidance of a University College faculty member, the student will develop a proposal for a study investigating an aspect of the discipline that is appropriate to the student's needs or to compliment other aspects of their program of study.
 - The student will develop a program of study or establish a methodology to conduct a research project. The student will work with the supervising faculty to define learning milestones, deliverables, and the means of assessment.
 - The student will provide a regular status report to the supervising faculty member and meet periodically throughout the semester to discuss progress, identify difficulties, and assess learning.
- 3.4 Student expectations and requirements: The student will be required to produce a final product or portfolio (as appropriate for the work undertaken). Examples include a comprehensive paper or report, a collection of shorter essays, a website, video product, or a combination based on prior agreement with the supervising faculty member.
- 3.5 Tentative texts and course materials: will vary based on the research project but must include primary source materials.

4. Resources:

- 4.1 Library resources: given the nature of an independent study, it is not possible to determine the library resources necessary. Presently, the library has adequate resources to support this course based on previous faculty research.
- 4.2 Computer resources: adequate.

5. Budget implications:

- 5.1 Proposed method of staffing: This is not a required course and will only be offered on occasion. As such, current faculty in University College will be adequate to staff the sections offered.
- 5.2 Special equipment needed: none.

- 5.3 Expendable materials needed: adequate resources exist within the School.
- 5.4 Laboratory materials needed: none.

6. Proposed term for implementation: Spring 2018

7. Dates of prior committee approvals:

School of Professional Studies Curriculum Committee	May 4, 2017
University College Curriculum Committee	September 7, 2017
Undergraduate Curriculum Committee	<u>10/02/2017</u>
University Senate	_____

UNIVERSITY COLLEGE
School of University Studies (SUS)
Proposal to Create a New Course
(Action Item)

Contact Person: S. Ellen Godbey, Ed.D. sherrie.godbey@wku.edu

1. Identification of proposed course:

- 1.1 Course prefix (subject area) and number: SUS 276
- 1.2 Course title: Displaced Persons & Civic Engagement
- 1.3 Abbreviated course title: Displaced Persons
- 1.4 Credit hours: 3 Variable credit (No)
- 1.5 Grade type: Standard Letter Grade
- 1.6 Prerequisites/co-requisites: None
- 1.7 Course description: Analysis of individual and host country crises and concerns surrounding displaced persons (DPs). Examination of the integration process and exploration of careers associated with assistance agencies. Includes a service learning project.

2. Rationale:

- 2.1 Reasons for developing the proposed course: 1) To offer a course that gives students an opportunity to engage in critical thinking and argument in relation to crisis topics such as all forms of personal violence and the positive and negative effects of DPs on host countries. Critical thinking and argument are subject areas regularly taught by faculty of the School of University Studies, so the faculty is familiar with the databases utilized for opposing viewpoints and with the methods for teaching critical thinking skills. These Quality Enhancement Plan (QEP) fundamentals are already incorporated into many SUS courses utilizing topics across academic disciplines, so the examination of crisis topics surrounding DPs will be an addition and reinforcement of the evidence and argument elements. 2) To offer a course that gives students an opportunity to engage with a local international community of displaced persons. Bowling Green is home to one of two large international centers in Kentucky that processes displaced persons. Civic engagement for this course may include communication with individuals at the international center but is not limited to the sharing of ideas and experiences with this multicultural population. This effort to engage with a community of individuals with diverse ethnic and cultural backgrounds is in alignment with WKU's international reach. 3) To offer a course that broadens students' understanding of careers associated with displaced persons, including government and non-government assistance agencies. 4) To help increase student retention by offering an additional SUS course at South Campus.

- 2.2 Projected enrollment in the proposed course: 25
- 2.3 Relationship of the proposed course to courses now offered by the department: SUS currently offers reading and writing courses that address critical thinking and critical reading skills. SUS course objectives are linked to WKU's Quality Enhancement Plan: Evidence & Argument, utilizing topics from various content areas. The school, at the request of the Commonwealth of Kentucky and WKU, is currently changing from non-credit to more credit-bearing courses. SUS also currently utilizes specific research databases for critical thinking and reading that would be used in the proposed course. The SUS 276 proposed course was successfully piloted as a temporary course in the spring of 2017 (second bi-term). This proposed course is an addition to SUS 295: Pop Culture & Gender, a credit-bearing course in our academic offerings.
- 2.4 Relationship of the proposed course to courses offered in other departments: The proposed SUS course is related to courses offered in the Diversity & Community Studies (DCS) department since it addresses diverse populations and gives students an opportunity to engage with the local community, but Displaced Persons & Civic Engagement is more focused on displaced persons than courses offered by DCS. SUS 276 is also related to the CSJ 435 course, Reimagining Citizenship but is different. CSJ 435 "...provides an exploration of the productions, contestations, inclusions and exclusions mobilized through multiple deployments of the concept 'citizenship'" while SUS 276 introduces students to the steps and tests required for citizenship. The SUS proposed course focuses more on the positive and negative effects of DPs on host countries and the individual crises, concerns, and needs of DPs than does CSJ 435. SUS 276 is also related to the citizenship topic addressed in Citizen and Self (HON 251), which is about how people "...can live better together," but is different because the Citizen and Self course is a study of "...the self, citizenship, democracy, diversity, and community, among other things." It focuses "in particular, on how communities work and the challenges facing Bowling Green." SUS 276 also addresses the challenges facing our local community but is unique in that it includes the exploration of careers associated with the assistance of DPs and a service learning project.
- 2.5 Relationship of the proposed course to courses offered in other institutions: While many universities offer courses that address citizenship and/or displaced persons in some way, no public university in Kentucky offers a course equal to SUS 276. This course is distinctive in 1) its student engagement with Bowling Green's local community of displaced persons, and 2) its exploration of assistance agencies and careers associated with DPs.

3. Description of proposed course:

3.1 Schedule type: L

3.2 Learning Outcomes: Learning outcomes for the course may include the following:

- Define characteristics of DPs
- Identify needs of DPs
- Examine the integration process
- Analyze individual crises
- Study effects on host countries
- Utilize research databases for evidence and argument
- Explore careers associated with assistance agencies
- Engage with displaced person(s) in the local community

3.3 Content outline:

- I. Overview of Displaced Persons
 - A. Statistics
 - B. Characteristics
 - C. Needs and rights
 - D. Responsibilities
 - E. Arguments surrounding DPs
 - F. Refugee camps
 - G. Drivers of immigration
 - H. Health concerns
- II. Integration and resettlement
 - A. Process
 - B. Assistance agencies
 1. Government
 2. Non-government
- III. Individual crises
 - A. Violence
 - B. Exploitation
- IV. Effects on the host country
 - A. Positive
 - B. Negative
- V. Careers
 - A. Government agencies
 - B. Non-government agencies

3.4 Student expectations and requirements: Students are expected to research selected topics, write about their findings, and present their findings to the class. Students are required to take notes, utilizing a specific format and write about their research findings, utilizing a specific writing style. Students will also be required to engage with displaced persons in the local international community and are expected to represent WKU in a professional manner.

3.5 Tentative texts and course materials may include works such as:

- “America’s Stateless People: How Immigration Gaps Create Poverty.” *Equal Voice*. Web. 2016.**
Anonymous. “Refugees, Supply, Demand, Jobs and Housing.” *Wall Street Journal*. 25 Jan. 2016, p. A.12.
- “Asylum and Refugee Resources: Legal Information.” *University of Minnesota*. Web. 2016.**
- “Asylum and Refugee Resources: Refugee and Asylum Non-Governmental Organizations.” *University of Minnesota*. Web. 2016.
- “Bowling Green, KY: More Confirmation that Refugee Resettlement is not about Humanitarianism, but about Supplying Cheap Labor. *Refugee Resettlement Watch*. Web. 2016.
- Caryl, Christian. “Weakest Links.” (Countries Hosting Refugees) *Foreign Policy*. 2016, Issue 216, p.34 (4).
Chang-Muy, Fernando, editor; Piller, Elaine, Congress editor. “Social Work with Immigrants and Refugees: Legal Issues, Clinical Skills, and Advocacy.” 2016.
- Cole, Georgia. “Negotiating Durable Solutions for Refugees: A Critical Space for Semiotic Analysis.” *International*. 2016, Vol.29 (1), pp.9-27.
- Congressional Digest. “History of Refugee Resettlement in America: Timeline of U.S. Laws and Policies Affecting Refugees.” 2016, Vol.95 (1), p.2 (2).
- “English as a Second Language.” *Kentucky Refugee Ministries, Inc*. Web. 2016.
- “Feds Pouring Muslim Immigrants into Rand Paul’s Hometown. *WND*. Web. 2016.
- Fike, D.; Androff, David. “The Pain of Exile”: What Social Workers Need to Know about Burmese Refugees.” *Social Work*, Apr 2016, Vol.61 (2), p. 127.
- Foerstel, Karen. "Women's Rights." *CQ Global Researcher* 1 May 2008: 115-47. Web. 26 Aug. 2016.
- Friscolanti, Michael. “Warm Hearts, Cold Reality.” (REFUGEES) *Maclean’s*. Aug. 15, 2016, Vol.129 (32-33), p.24.
- Glazer, Sarah. "European Migration Crisis." *CQ Researcher* 31 Jul. 2015: 649-72. Web. 26 Aug. 2016.
- Glazer, Sarah. "Organ Trafficking." *CQ Global Researcher* 19 Jul. 2011: 341-66. Web. 26 Aug. 2016.
- “Groups Decide to Settle 40 Syrians in Bowling Green. *Daily News*. Web. 2016.**
- “Historic Olympic Team Carries Flag for All Refugees.” *Wave 3 News*. Web. 2016.
- “Human Trafficking.” *Right to Life of Central Kentucky*. Web. 2016.
- “International Center Branching Out: Federal Government Approves Building New Owensboro Office.” *The Daily News*. Web. 2009.
- Jordan, Miriam ; Jordan, Miriam. “U.S. News: More Syrian Refugees Settle in U.S.” *Wall Street Journal*, 14 Jul. 2016, p.A.3.
- Jost, Kenneth. "Human Rights Issues." *CQ Researcher* 30 Oct. 2009: 909-32. Web. 26 Aug. 2016.
- “Kentucky Becoming a Hotspot for Refugee Resettlement.” *The Daily Stormer*. Web. 2015.
- Kiener, Robert. "Dangerous War Debris." *CQ Global Researcher* 1 Mar. 2010: 51-78. Web. 26 Aug. 2016.
- “Losing Identity during the Refugee Crisis: The Difference between Assimilation and Integration in the Classroom.” *The Atlantic*. Web. May 2016.
- Masci, David. "Assisting Refugees." *CQ Researcher* 7 Feb. 1997: 97-120. Web. 26 Aug. 2016.
- Mead, Lawrence. “Immigration: The Cultural Dimension.” *Society*, Apr 2016, Vol.53 (2), pp.116-122.
- Murshidi, Mujalli Mhailan. “Global Assistance in Caring for Syrian Refugees. *Conflict and Health*, 2016, Vol. 10.
- “New Americans: Refugee Resettlement in Lexington, Kentucky.” *Lexington Public Library Cable Channel* 20.2016. Television.

- “Nine Refugees with Active TB Sent to a Single Kentucky County Since 2013. *Breitbart News*. Web. 24 Jun. 2016.
- O'Neill, Zora. “Refugees Need Facts as Well as Food.(NEWS)(Greece). *USA Today*, 14 Apr. 2016, p.07A.
- “Refugees, Immigrants, Study for Citizenship Test. *Chapel Hill News*. Web. 2016.
- Shandera, W. “An Analysis of Global HIV Prevalence among Refugees, Asylum Seekers, and Migrants, Using the US Bureau of the Census databank.” *International Journal of Infectious Diseases*, Apr. 2016, Vol.45, pp.270-270.
- “Syrian Refugees Coming to Kentucky, Elsewhere in the US. *USA Today*. Web. 28 Jan. 2015.
- “Syrian Refugees Land in Kentucky Amid Backlash.” *Courier-Journal*. Web. 19 Nov. 2016.
- “Syrian Refugees Likely to End up on Welfare.” *The Washington Times*. Web. 2016.
- “The Rights of Refugees: Study Guide.” *Human Rights Education Associates (HREA)*. Web. 2003.
- Triandafyllidou, Anna. *Routledge Handbook of Immigration and Refugee Studies*. New York: Routledge, Taylor, & Francis Group, 2016.
- Powell-Perryment, Mary; Peters, Joan Y. “Refugees and Responsibilities.”(LETTERS)(Letter to the editor). *Maclean's*. 15 Feb. 2016, Vol.129 (6-7), p.6.
- The Economist. “For Good or Ill; The Economic Impact of Refugees.” 23 Jan. 2016, Vol.418 (8973), p. 68(US).
- The Economist. “Learning the Hard Way; Educating Refugees.” 02 Jan. 2016, Vol.418 (8970), p. 42(US).
- The Lancet. “Rights of Refugees—Collaboration is Key.” 02 Jan. 2016, Vol. 387(10013), p.2.
- “US Under New Pressure to Absorb Syrian Refugees as Europe Faces Crisis.” *Fox News*. Web. 03 Sep. 2015.
- Weng, Suzie ; Lee, Justin. “Why Do Immigrants and Refugees Give Back to Their Communities and What Can We Learn from Their Civic Engagement?” *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*. 2016, Vol.27 (2), pp.509-524.

4. Resources

- 4.1 Library resources: Sufficient
- 4.2 Computer resources: Sufficient

5. Budget implications:

- 5.1 Proposed method of staffing: Current WKU faculty
- 5.2 Special equipment needed: None
- 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:

School of University Studies (SUS): September 06, 2016

University College Curriculum Committee: September 7, 2017

Colonnade Committee: 10/02/2017

University Senate: _____

Proposal Date: 4/19/17

**College of Education & Behavioral Sciences
Department of Psychology
Proposal to Revise Course Prerequisites/Corequisites
(Consent Item)**

Contact Person: Joe Cangemi, joseph.cangemi@wku.edu, (270) 745-2343

1. Identification of course:

- 1.8 Course prefix (subject area) and number: PSY 371
- 1.9 Course title: The Psychology of Sales Behavior

2. Current prerequisites/corequisites/special requirements: PSY/S 100

3. Proposed prerequisites/corequisites/special requirements: None.

4. Rationale for the revision of prerequisites/corequisites/special requirements: This is a standalone course and the prerequisite of PSY/S 100 is unnecessary. Currently, it prevents some students from enrolling in the course. I want to remove that unnecessary barrier.

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

6. Proposed term for implementation: Summer 2018

7. Dates of prior committee approvals:

Department/ Unit	5/5/17
College Curriculum Committee	9/5/2017
Undergraduate Curriculum Committee	10/02/2017
University Senate	

Proposal Date: 4/19/17

**College of Education & Behavioral Sciences
Department of Psychology
Proposal to Revise Course Prerequisites/Corequisites
(Consent Item)**

Contact Person: Jenni Redifer, jenni.redifer@wku.edu, (270) 745-4081

1. Identification of course:

- 1.1 Course prefix (subject area) and number: PSY 436
- 1.2 Course title: Applied Cognitive Psychology

2. Current prerequisites/corequisites/special requirements: PSY/S 100

3. Proposed prerequisites/corequisites/special requirements: PSY/S 210 and PSY/S 211 or permission of the instructor.

4. Rationale for the revision of prerequisites/corequisites/special requirements: PSY 436 requires reading original research articles and interpreting research findings. Students will be more prepared to interpret research findings if they have completed PSY/S 210 and 211 (Research Methods and Research Methods Lab). PSY/S 100 is a prerequisite for PSY/S 210 and PSY/S 211, so the PSY/S 100 prerequisite can be removed from PSY 436.

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

6. Proposed term for implementation: Summer 2018

7. Dates of prior committee approvals:

Department/ Unit	5/5/17
College Curriculum Committee	9/5/2017
Undergraduate Curriculum Committee	10/02/2017
University Senate	

Proposal Date:

**College of Education and Behavioral Sciences
Department Name: School of Teacher Education
Proposal to Suspend a Program
(Consent Item)**

Contact Person: Andrea Paganelli, andrea.paganelli@wku.edu, 2707454420

1. Identification of program:

- 1.1 Program reference number: 411
- 1.2 Program title: Minor in Library Media Education
- 1.3 Credit hours: 18

2. Rationale for the program suspension:

This program has very low enrollment of 3-5 students per year. We cannot provide these undergraduate courses with such low enrollment for 3-5 students.

3. Effect on current students or other departments, if known: none anticipated

4. Proposed term for implementation: Spring 2018

5. Dates of prior committee approvals:

Department/ Unit: School of Teacher Education	<u>8/16/17</u>
CEBS College Curriculum Committee	<u>09/05/2017</u>
Professional Education Council (if applicable)	<u>9/13/17</u>
Undergraduate Curriculum Committee	<u>10/02/2017</u>
University Senate	<u></u>

Proposal Date: 4/18/17

**College of Health and Human Services
School of Nursing
Proposal to Revise Course Grade Type
(Consent Item)**

Contact Person: Maribeth Wilson, maribeth.wilson@wku.edu, 745-6916

1. Identification of proposed course

1.10 Course prefix and number: NURS 449

1.11 Course title: Clinical: Community Health Nursing

2. Current course grade type: pass/fail

3. Proposed course grade type: standard letter grade

4. Rationale for revision of course grade type:

I am proposing a Course Grade Type Revision for NURS449 Community Health Nursing based on the following rationale:

- The revision is requested based on consistent student feedback from SITE evaluations over four (4) semesters that the course be changed from a pass/fail to a standard letter grade. Students have consistently stated a letter grade would better reflect the efforts and learning outcomes achieved in the course than the current pass/fail designation.
- The revision is requested to maintain consistency in courses within the nursing program. The NURS422 senior practicum course bi-terms clinical hours with the Community NURS449 during the final semester. NURS448 is also a capstone senior course with NURS 449 being the clinical application portion, NURS 448 uses a standard letter grade designation.
- In the current NURS449 course the student completes 90 clinical hours. In addition, the student submits the following assignments a) a self-assessment of learning needs b) a community assessment of a specific area that forms the basis for the population project by ascertaining the specific need in that community c) a paper based on a specific population in that community with a goal to enhance or better the outcome of that particular population using objectives, proposal, and budget and d) a weekly reflective journal evaluating learning outcomes. These assignments are more than a pass/fail skills-based clinical course. The assignments require assessment, planning and analysis at a senior level. A letter grade would better reflect the efforts for completion of the assignments.
- The course currently contains a specific delineation of requirements designating a point value for each assignment throughout the bi-term and an overall percentage that would easily determine a letter grade for the course. This outline was designed to

better represent the student performance and clarify criteria required to pass in the course rather than the pass/fail designation.

- The standard letter grade is a better representation of the overall student performance in the clinical and evaluation of learning outcomes for a senior level capstone course.

5. **Proposed term for implementation:** Spring 2018

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

Department/ Unit: School of Nursing:

04/18/17

CHHS Undergraduate Curriculum Committee:

9/28/2017

Undergraduate Curriculum Committee

10/02/2017

University Senate

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

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

1. Identification of course:

1.12 Current course prefix (subject area) and number: CHEM 102

1.13 Course title: INTRODUCTION TO CHEMISTRY LABORATORY

2. Rationale for the course suspension:

The Chemistry Department does not intend to offer this course again. CHEM 101 provides Colonnade NS and NL credit, and enrollments in CHEM 102 are down to 3 to 8 students per semester.

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

None. Students may take CHEM 101 to satisfy Colonnade NS and NL credit.

4. Proposed term for implementation:

First available (Spring 2018)

5. Dates of prior committee approvals:

Department of Chemistry

05/10/2017

Ogden College Curriculum Committee

09-07-2017

Colonnade Committee

Undergraduate Curriculum Committee

10/02/2017

University Senate

Proposal Date: 04/20/2017

Ogden College of Science & Engineering
Department of Chemistry
Proposal to Suspend a Course
(Consent Item)

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

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: CHEM 240
- 1.2 Course title: INTRODUCTION TO ORGANIC CHEMISTRY

2. Rationale for the course suspension:

The course has only been offered once and the Department has no intention of offering it again.

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

None

4. Proposed term for implementation:

First available (Spring 2018)

5. Dates of prior committee approvals:

Department of Chemistry	<u>05/10/2017</u>
Ogden College Curriculum Committee	<u>09-07-2017</u>
Undergraduate Curriculum Committee	<u>10/02/2017</u>
University Senate	<u> </u>

Proposal Date: 4/24/17

**Ogden College of Science and Engineering
School of Engineering and Applied Sciences
Proposal to Delete a Course
(Consent Item)**

Contact Person: Mark E. Cambron, mark.cambron@wku.edu, 270-745-8868

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: CE 331
- 1.2 Course title: UK-Transportation Engineering

2. Rationale for the course deletion:

This course was developed to track credit hours earned from the University of Kentucky required in the joint WKU/UK CE Program. This program is no longer joint and CE 331 is no longer required. CE 332 is the equivalent course will continue to be taught by the Engineering Department.

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

4. Proposed term for implementation: Spring 2018

5. Dates of prior committee approvals:

Engineering Department

05/04/2017

Ogden College Curriculum Committee

09-07-2017

Undergraduate Curriculum Committee

10/02/2017

University Senate

Proposal Date: 4/24/17

**Ogden College of Science and Engineering
School of Engineering and Applied Sciences
Proposal to Delete a Course
(Consent Item)**

Contact Person: Mark E. Cambron, mark.cambron@wku.edu, 270-745-8868

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: CE 341
- 1.2 Course title: UK-Fluid Thermal Science

2. Rationale for the course deletion:

This course was developed to track credit hours earned from the University of Kentucky required in the joint WKU/UK CE Program. This program is no longer joint and CE 331 is no longer needed. CE 332 is the equivalent course will continue to be taught by the Engineering Department.

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

4. Proposed term for implementation: Spring 2018

5. Dates of prior committee approvals:

Engineering Department

05/04/2017

Ogden College Curriculum Committee

09-07-2017

Undergraduate Curriculum Committee

10/02/2017

University Senate

Proposal Date: 4/24/17

**Ogden College of Science and Engineering
School of Engineering and Applied Sciences
Proposal to Delete a Course
(Consent Item)**

Contact Person: Mark E. Cambron, mark.cambron@wku.edu, 270-745-8868

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: CE 351
- 1.2 Course title: UK-Introduction to Environmental Engineering

2. Rationale for the course deletion:

This course was developed to track credit hours earned from the University of Kentucky required in the joint WKU/UK CE Program. This program is no longer joint and CE 351 is no longer needed. CE 352 is the equivalent course will continue to be taught by the Engineering Department.

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

4. Proposed term for implementation: Spring 2018

5. Dates of prior committee approvals:

Engineering Department	05/04/2017
Ogden College Curriculum Committee	<hr/> 09-07-2017
Undergraduate Curriculum Committee	<hr/> 10/02/2017
University Senate	<hr/>

Proposal Date: 4/24/17

**Ogden College of Science and Engineering
School of Engineering and Applied Sciences
Proposal to Delete a Course
(Consent Item)**

Contact Person: Mark E. Cambron, mark.cambron@wku.edu, 270-745-8868

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: CE 373
- 1.2 Course title: UK-Structural Analysis

2. Rationale for the course deletion:

This course was developed to track credit hours earned from the University of Kentucky required in the joint WKU/UK CE Program. This program is no longer joint and CE 373 is no longer needed. CE 382 is the equivalent course will continue to be taught by the Engineering Department.

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

4. Proposed term for implementation: Spring 2018

5. Dates of prior committee approvals:

Engineering Department	05/04/2017
Ogden College Curriculum Committee	<hr/> 09-07-2017
Undergraduate Curriculum Committee	<hr/> 10/02/2017
University Senate	<hr/>

Proposal Date: 4/24/17

**Ogden College of Science and Engineering
School of Engineering and Applied Sciences
Proposal to Delete a Course
(Consent Item)**

Contact Person: Mark E. Cambron, mark.cambron@wku.edu, 270-745-8868

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: CE 483
- 1.2 Course title: UK-Elementary Structural Design

2. Rationale for the course deletion:

This course was developed to track credit hours earned from the University of Kentucky required in the joint WKU/UK CE Program. This program is no longer joint and CE 483 is no longer needed. CE 482 is the equivalent course will continue to be taught by the Engineering Department.

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

4. Proposed term for implementation: Spring 2018

5. Dates of prior committee approvals:

Engineering Department	05/04/2017
Ogden College Curriculum Committee	09-07-2017
Undergraduate Curriculum Committee	10/02/2017
University Senate	_____

Proposal Date: April 11, 2017

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

Contact Person: Huanjing Wang, huanjing.wang@wku.edu, 270-745-2672

7. Identification of course:

- 1.1 Course prefix (subject area) and number: CS 360
- 1.2 Course title: Software Engineering I

8. Current course catalog listing:

Modern development cycle examined via software engineering: needs assessment, requirements analysis, user interface, design, construction, test, maintenance/enhancement. Current methodologies and tools: data dictionary, data flow diagrams, structured walkthroughs, teams, program management. Case studies involving automated CASE and expert systems.

9. Proposed course catalog listing:

Modern development cycle examined via software engineering: needs assessment, requirements analysis, user interface, design, construction, test, maintenance/enhancement. Current methodologies and tools: data dictionary, data flow diagrams, structured walkthroughs, teams, program management.

10. Rationale for revision of the course catalog listing:

Automated CASE and expert systems have not been used in project for a few years. The revised course catalog listing reflects the current course work.

11. Proposed term for implementation:

Summer 2018

12. Dates of prior committee approvals:

Department of Computer Science
Ogden College Curriculum Committee
Undergraduate Curriculum Committee
University Senate

April 21, 2017

09-07-2017

10/02/2017

Proposal Date: April 17, 2017

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

Contact Person: Huanjing Wang, huanjing.wang@wku.edu, 270-745-2672

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: CS 405
 - 1.2 Course title: Numerical Analysis I
 - 1.3 Credit hours: 3.0

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

MATH 237 or 307 or 310, and CS 180 or CS 146 all with grades of C or better.

- 3. Proposed prerequisites/corequisites/special requirements:**

MATH 137, and MATH 237 or MATH 307 or MATH 310, and CS 180 or CS 146, all with grades of “C” or better.

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

This is a cross listing course with Math 405. Math department revised Math 405 prerequisite. The proposed revision will rectify this.

- 5. Effect on completion of major/minor sequence:**

There is no effect on completion of major/minor sequence

- 6. Proposed term for implementation:**

Summer 2018

- 7. Dates of prior committee approvals:**

Department of Computer Science
OCSE Curriculum Committee
Undergraduate Curriculum Committee
University Senate

April 21,2017

09-07-2017

10/02/2017

Proposal Date: 2 May, 2017

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

Contact Person: Chris Byrne, email chris.byrne@wku.edu, phone 745-6286

1. Identification of course:

- 1.1 Course prefix (subject area) and number: EM 303
- 1.2 Course title: Mechanics of Deformable Solids

2. Current prerequisites/corequisites/special requirements:

Prerequisite; MATH 137, EM 221 or EM 222 with a grade of C or better

3. Proposed prerequisites/corequisites/special requirements:

Prerequisite; MATH 137 with a grade of C or better, EM 222 with a grade of C or better, PHYS 255 with a grade of C or better.

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

Including the C or better grade requirement ensures student preparation and incorporates previous graduation requirements. Including the physics keeps the student on track with pre-major and graduation requirements.

5. Effect on completion of major/minor sequence:

None

6. Proposed term for implementation:

Fall 2018

7. Dates of prior committee approvals:

Engineering Department

May 4, 2017

Ogden College Curriculum Committee

09-07-2017

Undergraduate Curriculum Committee

10/02/2017

University Senate

Proposal Date: 2 May, 2017

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

Contact Person: Chris Byrne, email chris.byrne@wku.edu, phone 745-6286

1. Identification of course:

- 1.1 Course prefix (subject area) and number: EM 313
- 1.2 Course title: Dynamics

2. Current prerequisites/corequisites/special requirements:

Prerequisite; EM 221 or EM 222 with a grade of C or better, MATH 331 (may be taken concurrently).

3. Proposed prerequisites/corequisites/special requirements:

Prerequisite; EM 222 with a grade of C or better, MATH 331 (may be taken concurrently), PHYS 255 with a grade of C or better.

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

Including the C or better grade requirement ensures student preparation and incorporates previous graduation requirements. Including the physics keeps the student on track with pre-major and graduation requirements.

5. Effect on completion of major/minor sequence:

None

6. Proposed term for implementation:

Fall 2018

7. Dates of prior committee approvals:

Engineering Department

May 4, 2017

Ogden College Curriculum Committee

09-07-2017

Undergraduate Curriculum Committee

10/02/2017

University Senate

Proposal Date: 2 May, 2017

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

Contact Person: Chris Byrne, email chris.byrne@wku.edu, phone 745-6286

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: ME 176
 - 1.2 Course title: Mechanical Engineering Freshman Design
- 2. Current prerequisites/corequisites/special requirements:**

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

Corequisite: MATH 117 or higher
- 4. Rationale for the revision of prerequisites/corequisites/special requirements:**

This aligns requirement with that of the electrical and civil engineering programs.
- 5. Effect on completion of major/minor sequence:**

None
- 6. Proposed term for implementation:**

Fall 2018
- 7. Dates of prior committee approvals:**

Engineering Department

May 4, 2017

Ogden College Curriculum Committee

09-07-2017

Undergraduate Curriculum Committee

10/02/2017

University Senate

Proposal Date: 2 May, 2017

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

Contact Person: Chris Byrne, email chris.byrne@wku.edu, phone 745-6286

1. Identification of course:

- 1.1 Course prefix (subject area) and number: ME 200
- 1.2 Course title: Sophomore Design

2. Current prerequisites/corequisites/special requirements:

Prerequisite; ME 180 with a grade of C or better, EM 221 or EM 222

3. Proposed prerequisites/corequisites/special requirements:

Prerequisite; ME 180 with a grade of C or better, Pre-major requirements satisfied in iCAP

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

This curriculum milestone is being shifted from the junior to the sophomore year to provide fewer obstacles to complete the degree. The requirement for admission to the major is being modified to reflect this change.

5. Effect on completion of major/minor sequence:

None

6. Proposed term for implementation:

Fall 2018

7. Dates of prior committee approvals:

Engineering Department

May 4, 2017

Ogden College Curriculum Committee

09-07-2017

Undergraduate Curriculum Committee

10/02/2017

University Senate

Proposal Date: 2 May, 2017

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

Contact Person: Chris Byrne, email chris.byrne@wku.edu, phone 745-6286

1. Identification of course:

- 1.1 Course prefix (subject area) and number: ME 240
- 1.2 Course title: Materials and Methods of Manufacturing

2. Current prerequisites/corequisites/special requirements:

Prerequisite; CHEM 116 or CHEM 120, MATH 136 with a grade of C or better
Corequisite; ME 241

3. Proposed prerequisites/corequisites/special requirements:

Prerequisite; CHEM 116 with a grade of C or better or CHEM 120 with a grade of C or better, MATH 136 with a grade of C or better
Corequisite; ME 241

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

Including the C or better grade here captures this requirement early in the program, it was previously a graduation requirement.

5. Effect on completion of major/minor sequence:

None

6. Proposed term for implementation:

Fall 2018

7. Dates of prior committee approvals:

Engineering Department

May 4, 2017

Ogden College Curriculum Committee

09-07-2017

Undergraduate Curriculum Committee

10/02/2017

University Senate

Proposal Date: 2 May, 2017

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

Contact Person: Chris Byrne, email chris.byrne@wku.edu, phone 745-6286

1. Identification of course:

- 1.1 Course prefix (subject area) and number: ME 241
- 1.2 Course title: Materials and Methods of Manufacturing Laboratory

2. Current prerequisites/corequisites/special requirements:

Prerequisite; CHEM 116 or CHEM 120, MATH 136 with a grade of C or better
Corequisite; ME 240

3. Proposed prerequisites/corequisites/special requirements:

Prerequisite; CHEM 106 or CHEM 121
Corequisite; ME 240

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

The current prerequisites are captured in the corequisite course CHEM116 or CHEM120. Adding the CHEM106 or CHEM121 lab ensures students' progress through the program and provides greater lab experience for those entering the course.

5. Effect on completion of major/minor sequence:

None

6. Proposed term for implementation:

Fall 2018

7. Dates of prior committee approvals:

Engineering Department

May 4, 2017

Ogden College Curriculum Committee

09-07-2017

Undergraduate Curriculum Committee

10/02/2017

University Senate

Proposal Date: 2 May, 2017

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

Contact Person: Chris Byrne, email chris.byrne@wku.edu, phone 745-6286

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: ME 300
 - 1.2 Course title: Junior Design
- 2. Current prerequisites/corequisites/special requirements:**

Prerequisite; ME 200 with a grade of C or better, ME 344, pre-major satisfied in iCAP
- 3. Proposed prerequisites/corequisites/special requirements:**

Prerequisite; ME 200 with a grade of C or better, ME 220, ME 344
- 4. Rationale for the revision of prerequisites/corequisites/special requirements:**

Transition to major will be captured in ME 200. Including ME 220 here provides more technical background for design, and ensures the course is taken within the first 5 semesters of the suggested plan of study so that students are not delayed in progress towards the degree.
- 5. Effect on completion of major/minor sequence:**

None
- 6. Proposed term for implementation:**

Fall 2018
- 7. Dates of prior committee approvals:**

Engineering Department

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

May 4, 2017

09-07-2017

10/02/2017

Proposal Date: 2 May, 2017

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

Contact Person: Chris Byrne, email chris.byrne@wku.edu, phone 745-6286

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: ME 310
 - 1.2 Course title: Engineering Instrumentation and Experimentation
- 2. Current prerequisites/corequisites/special requirements:**

Prerequisite; EM 302 or EM 303, ME 241, MATH 331 (may be taken concurrently)
- 3. Proposed prerequisites/corequisites/special requirements:**

Prerequisite; EM 303, EE 210, ME 347 (may be taken concurrently)
- 4. Rationale for the revision of prerequisites/corequisites/special requirements:**

The topical content in EE 210 and ME 347 will better prepare the students for the course.
- 5. Effect on completion of major/minor sequence:**

None
- 6. Proposed term for implementation:**

Fall 2018
- 7. Dates of prior committee approvals:**

Engineering Department

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

May 4, 2017

09-07-2017

10/02/2017

Proposal Date: 2 May, 2017

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

Contact Person: Chris Byrne, email chris.byrne@wku.edu, phone 745-6286

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: ME 325
 - 1.2 Course title: Heat Transfer
- 2. Current prerequisites/corequisites/special requirements:**

Prerequisite; ME 330
- 3. Proposed prerequisites/corequisites/special requirements:**

Prerequisite; ME 330
Corequisite; ME 333 Heat Transfer Laboratory
- 4. Rationale for the revision of prerequisites/corequisites/special requirements:**

ME 325 and ME 333 are to be taken concurrently. This change provides clarity to the requirement, and is already indicated in the laboratory course requirement.
- 5. Effect on completion of major/minor sequence:**

None
- 6. Proposed term for implementation:**

Fall 2018
- 7. Dates of prior committee approvals:**

Engineering Department

May 4, 2017

Ogden College Curriculum Committee

09-07-2017

Undergraduate Curriculum Committee

10/02/2017

University Senate

Proposal Date: 2 May, 2017

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

Contact Person: Chris Byrne, email chris.byrne@wku.edu, phone 745-6286

1. Identification of course:

- 1.1 Course prefix (subject area) and number: ME 330
- 1.2 Course title: Fluid Mechanics

2. Current prerequisites/corequisites/special requirements:

Prerequisite; MATH 331, ME 220 (may be taken concurrently)

3. Proposed prerequisites/corequisites/special requirements:

Prerequisite; MATH 331, ME 220 with a grade of C or better, MATH 237
Corequisite; ME 332 Fluid Mechanics Laboratory

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

ME 330 and ME 332 are to be taken concurrently. This change provides clarity to the requirement, and is already indicated in the laboratory course requirement. Having ME 220 be taken before gives better student preparation, and having the C or better grade ensures adequate preparation. The surface and volume integration learned in MATH 237 will improve student preparation for the course.

5. Effect on completion of major/minor sequence:

None

6. Proposed term for implementation:

Fall 2018

7. Dates of prior committee approvals:

Engineering Department

May 4, 2017

Ogden College Curriculum Committee

09-07-2017

Undergraduate Curriculum Committee

10/02/2017

University Senate

Proposal Date: 2 May, 2017

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

Contact Person: Chris Byrne, email chris.byrne@wku.edu, phone 745-6286

1. Identification of course:

- 1.1 Course prefix (subject area) and number: ME 332
- 1.2 Course title: Fluid Mechanics Laboratory

2. Current prerequisites/corequisites/special requirements:

Prerequisite; MATH 331, ME 220 (may be taken concurrently) (these are not presently reflected in the Undergraduate catalog)

3. Proposed prerequisites/corequisites/special requirements:

Prerequisite; MATH 331, ME 220 with a grade of C or better, MATH 237, ME 310
Corequisite; ME 330 Fluid Mechanics

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

ME 330 and ME 332 are to be taken concurrently. This change provides clarity to the requirement. Having ME 220 be taken before gives better student preparation, and having the C or better grade ensures adequate preparation. The surface and volume integration learned in MATH 237 will improve student preparation for the course. Including ME 310 ensures student preparation in experimental methods used in the course.

5. Effect on completion of major/minor sequence:

None

6. Proposed term for implementation:

Fall 2018

7. Dates of prior committee approvals:

Engineering Department

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

May 4, 2017

09-07-2017

10/02/2017

Proposal Date: 2 May, 2017

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

Contact Person: Chris Byrne, email chris.byrne@wku.edu, phone 745-6286

1. Identification of course:

- 1.1 Course prefix (subject area) and number: ME 333
- 1.2 Course title: Heat Transfer Laboratory

2. Current prerequisites/corequisites/special requirements:

Prerequisite; none
Corequisite; ME 325

3. Proposed prerequisites/corequisites/special requirements:

Prerequisite; ME 332
Corequisite; ME 325

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

ME 332 is taken concurrently with ME 330, which is a Prerequisite for ME 325. Adding this provides clarity to the requirement and is consistent with lab prerequisite identification used elsewhere in the program.

5. Effect on completion of major/minor sequence:

None

6. Proposed term for implementation:

Fall 2018

7. Dates of prior committee approvals:

Engineering Department	May 4, 2017
Ogden College Curriculum Committee	09-07-2017
Undergraduate Curriculum Committee	10/02/2017
University Senate	

Proposal Date: 2 May, 2017

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

Contact Person: Chris Byrne, email chris.byrne@wku.edu, phone 745-6286

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: ME 344
 - 1.2 Course title: Mechanical Design
- 2. Current prerequisites/corequisites/special requirements:**

Prerequisite; EM 302 or EM 303 with a grade of C or better, ME 240 (may be taken concurrently)
- 3. Proposed prerequisites/corequisites/special requirements:**

Prerequisite; EM 303 with a grade of C or better, ME 240 with a grade of C or better
- 4. Rationale for the revision of prerequisites/corequisites/special requirements:**

EM 302 is being removed from the catalog. Having ME 240 be taken before gives better student preparation, and having the C or better grade ensures adequate preparation.
- 5. Effect on completion of major/minor sequence:**

None
- 6. Proposed term for implementation:**

Fall 2018
- 7. Dates of prior committee approvals:**

Engineering Department

May 4, 2017

Ogden College Curriculum Committee

09-07-2017

Undergraduate Curriculum Committee

10/02/2017

University Senate

Proposal Date: 1 August 2017

**Potter College of Art & Letters
Ogden College of Science and Engineering
Dean's Offices
Proposal to Revise Course Prerequisites/Corequisites
(Consent Item)**

Contact Person: Andrew McMichael andrew.mcmichael@wku.edu 5-6538
Cate Webb cathleen.webb@wku.edu 56181

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: BDAS 495
 - 1.2 Course title: Brewing and Distilling Arts & Sciences

- 2. Current prerequisites/corequisites/special requirements:** Senior standing and consultation with a designee of the Ogden College or Potter College Dean's office.

- 3. Proposed prerequisites/corequisites/special requirements:** Registration in the certificate and consultation with a designee of the Ogden college, Gordon Ford college, or Potter college Dean's office.

- 4. Rationale for the revision of prerequisites/corequisites/special requirements:** The current wording is such that students might find themselves not having senior standing in, for example, summer 2018, but then would take enough credits during 2018-2019 [fall, winter, spring, summer] to graduate. They would then have to take an internship after graduation. The current wording also does not allow the co-coordinator in Gordon Ford to approve internships.

- 5. Effect on completion of major/minor sequence:** This will give students more flexibility in completing the program in a timely fashion.

- 6. Proposed term for implementation:** Next available term (Summer 2018)

- 7. Dates of prior committee approvals:**

PCAL & Ogden & GFCoB Deans' Offices	1 August 2017
PCAL College Curriculum Committee	_____
Ogden College Curriculum Committee	09-07-2017
Undergraduate Curriculum Committee	10/02/2017
University Senate	_____

**Ogden College of Science and Engineering
Psychological Sciences
Proposal to Create a New Course
(Action Item)**

Contact Person: Diane Lickenbrock, Diane.Lickenbrock@wku.edu, 5-4264

1. Identification of proposed course:

- 1.1 Course prefix (subject area) and number: PSYS 425
- 1.2 Course title: Developmental Psychopathology
- 1.3 Abbreviated course title: Developmental Psychopathology
(maximum of 30 characters or spaces)
- 1.4 Credit hours: 3 Variable credit (yes or no) NO
- 1.5 Grade type: Letter grade
- 1.6 Prerequisites/corequisites: PSYS 210 and PSYS 211 with grades of C or better,
and PSYS 220 or PSYS 321 or PSYS 440, or permission of instructor.
- 1.7 Course description: Examines the interaction between the dynamic processes
underlying both normative human development and the development of
psychopathology. Theoretical and empirical research will be reviewed, focusing
on the psychological science of the principles of adaptation and maladaptation.

2. Rationale:

- 2.6 Reason for developing the proposed course: The Department of Psychological Sciences has a particular focus in the area of developmental psychology and this course enhances that focus. The field of developmental psychopathology offers advanced approaches to conceptualizing, studying, and intervening in developmental processes. This approach encourages students to develop the ability to integrate information from various areas of psychological science (e.g., clinical, developmental, neuroscience) to better understand human development from a normative as well as non-normative perspective.

Psychological research focusing on normative development often does not generalize well to understanding the thoughts, behaviors, and emotions of people who are developing along a non-normative trajectory. This course will complement our current course offerings by giving students an opportunity to explore the ways that scientists study non-normative development as well as the impact of psychopathologies on typical normative trajectories.

Given the prevalence of non-normative developmental outcomes, it is critical that our students achieve an understanding of the etiology of non-normative outcomes as well as mechanisms of intervention. Such understanding will give them greater

opportunities to understand the diversity of individuals with whom they interact as well as an enhanced ability to provide a high quality of life for our constituents.

- 2.7 Projected enrollment in the proposed course: 25 students per year. This projection is based on demand when the course was offered as a special topics offering.
- 2.8 Relationship of the proposed course to courses now offered by the department: Consistent with our scholarly expertise in the area of developmental psychology, the Department of Psychological Sciences offers several courses that focus on normative development (PSYS 220-Introduction to Lifespan Developmental Psychology, PSYS 321- Child Developmental Psychology, and PSYS 423- Psychology of Adult Life and Aging, PSYS 424 Special Topics in Developmental Psychology). In addition, we offer PSYS 440-Abnormal Psychology, but this is a survey course that does not focus specifically on developmental process involved in psychopathology.
- 2.9 Relationship of the proposed course to courses offered in other departments: PSY 220 (Introduction to Lifespan Developmental Psychology) and PSY 440 (Abnormal Psychology) are equivalent to PSYS 220 and PSYS 440 but are offered by the Department of Psychology. The Department of Psychology also offers PSY 346 (Foundations of Clinical and Community Behavioral Health) and PSY 445 (Introduction to Clinical and School Psychology), which are focused on understanding mental health from the perspective of a mental health professional. Thus, these courses differ substantially from the proposed course, which places a greater emphasis on the design, conduct, and interpretation of research and theories, and use developmental psychological science to understanding non-normative development.

The Department of Family and Consumer Sciences offers a number of courses on the role that a child's environment and background plays in development, including FACS 292 (Diversity in Early Childhood Programs), FACS 391 (Risk and Resilience), FACS 395 (Child and Family Stress), FACS 492 (Growth and Guidance of Children), and FACS 496 (Addressing Challenging Behavior in Young Children). Also, the School of Teacher Education offers a number of courses (SPED – Special Education) on the role that psychopathologies can play in educating children and how educators can accommodate their instruction to meet the needs of children in special education/exceptional education programs within schools to foster social and cognitive development of children. The proposed course differs from these by focusing on the research in psychological science used to build theories in psychology about the systems involved in the emergence and development of psychopathology and is not focused on interacting/intervening directly in schools and in the home.

- 2.10 Relationship of the proposed course to courses offered in other institutions:

The majority of our benchmarks offer the same, or a similar course, at the graduate level. Ball State University and Bowling Green State University offer Developmental Psychopathology at the undergraduate level. Many institutions outside of our benchmarks offer Developmental Psychopathology at the undergraduate level including: Boston University, Cal State Long Beach, Cal State Northridge, Cornell University, Muhlenberg College, SUNY Empire State, University of Chicago, UC Santa Barbara, UC Berkeley, and UNC Chapel Hill.

3. Discussion of proposed course:

3.6 Schedule type: Lecture

3.7 Learning Outcomes:

Upon completion of this course students will:

- Be familiar with the history and goals of studying psychopathology from a developmental perspective
- Understand the relationship between studying normative and non-normative development
- Identify the biological and sociocultural forces implicated in psychopathology
- Be familiar with major forms of prevention and intervention of mental health problems in children and adolescents
- Critically evaluate research in developmental psychopathology
- Be able to communicate, in oral and written forms, an understanding of research and theory in developmental psychopathology

3.8 Content outline:

1. Basic Overview of Developmental Psychopathology
 - a. What is Developmental Psychopathology?
 - b. Identifying the Dynamic Processes Underlying the Development of Psychopathology
 - c. Methodology and Developmental Psychopathology
 - d. Psychopathology as a Developmental Outcome
2. Risk, Resiliency, and Vulnerability
 - a. Risk and Resiliency
 - b. Biological Sensitivity to Psychopathology
 - c. Gene X Environment Interactions
3. Psychological Research into the Role of Family in Developmental Outcomes
 - a. The Parent-Child Relationship
 - b. Maltreatment and Neurobiology of Stress
 - c. Marital Conflict and Child Outcomes
 - d. Parent-Child Emotion and Regulation
4. Psychological Research into Prevention, Intervention, and Application
 - a. Prevention & Intervention
 - b. Applications
 - c. Preventing and Treating Mental Health Problems in Children

3.9 Student expectations and requirements:

Students will be graded on their performance via

- Active class participation, included prepared discussion questions
- Three to four exams

- Two papers, in APA format, critically analyzing the scientific literature.
- 3.10 Tentative texts and course materials:
- Cummings, E. M., Davies, P. T., & Campbell, S. B. (2000). *Developmental Psychopathology and Family Process: Theory, Research, and Clinical Implications*. New York: Guilford Press.
 - APA Publication manual (6th edition)
 - Cummings, E. M., & Davies, P. T. (2010). *Marital Conflict and Children: An Emotional Security Perspective*. New York: Guilford Press.
 - Articles from scholarly journals in the discipline (the following represents a sample):
- Cicchetti, D., Rogosch, F. A., & Toth, S. L. (2006). Fostering secure attachment in infants in maltreating families through preventive interventions. *Development and Psychopathology, 18*, 623-650.
- Davies, P. T., Cicchetti, D., & Hentges, R. F. (2015). Maternal unresponsiveness and child disruptive problems: The interplay of uninhibited temperament and dopamine transporter genes. *Child Development, 86*, 63-79.
- Ellis et al., (2011). Differential susceptibility to the environment: An evolutionary-neurodevelopmental theory. *Development & Psychopathology, 23*, 7-28.
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist, 56*, 227-238.
- Maughan, A., Cicchetti, D., Toth, S. L., & Rogosch, F. A. (2007). Early-occurring maternal depression and maternal sensitivity in predicting young children's emotional regulation and socioemotional difficulties. *Journal of Abnormal Child Psychology, 34*, 685-703.
- Moffitt, T. E., Caspi, A., & Rutter, M. (2006). Measured gene– environment interactions in psychopathology: concepts, research strategies, and implications for research, intervention, and public understanding of genetics. *Perspectives on Psychological Science, 1*, 5-27.
- Pollak, S. D., Cicchetti, D., Hornung, K., & Reed, A. (2000). Recognizing emotion in faces: Developmental effects of child abuse and neglect. *Developmental Psychology, 36*, 679-688.
- Rutter et al. (1997). Integrating nature and nurture: Implications of person– environment correlations and interactions for developmental psychopathology. *Development and Psychopathology, 9*, 335-364.
- Sroufe, L. A. (2013). The promise of developmental psychopathology: past and present. *Development and Psychopathology, 25*, 1215-24

4. Resources:

- 4.3 Library resources: Students will use the Psychology and Science indexing/abstracting/full-text services offered by the WKU library. Current resources will provide adequate access to journal articles needed for this course.
- 4.4 Computer resources: no additional resources

5. Budget implications:

- 5.5 Proposed method of staffing: Current faculty will staff this course
- 5.6 Special equipment needed: None
- 5.7 Expendable materials needed: None

5.8 Laboratory materials needed: None

6. Proposed term for implementation: Spring 2018

7. Dates of prior committee approvals:

Department of Psychological Sciences

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

August 16, 2017

09-07-2017

10/02/2017

Proposal Date: 8/16/2017

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

Contact Person: Kelly Madole; Kelly.Madole@wku.edu, 5-6475

1. Identification of proposed course:

- 1.1 Course prefix (subject area) and number: PSYS 442
- 1.2 Course title: Psychology of Suicide and Self-Injury
- 1.3 Abbreviated course title: PSY OF SUICIDE & SELF INJURY
(maximum of 30 characters or spaces)
- 1.4 Credit hours: 3 Variable credit (yes or no) no
- 1.5 Grade type: Letter
- 1.6 Prerequisites/corequisites: Junior standing and a grade of C or better in PSYS 440, or permission of instructor.
- 1.7 Course description: Focuses on the study of self-harm behavior, specifically on suicide and self-injury. Topics include theories of suicide, risk and protective factors, assessing and managing suicide risk in clinical settings, treatment for suicidal patients, ethics, nonsuicidal self-injury, the neurobiology of suicide, and prevention and post-vention.

2. Rationale:

2.1 Reason for developing the proposed course:
Suicidal and self-injurious behaviors represent a serious threat to the well-being of adolescents and young adults. An estimated 800,000 deaths occur annually as a result of suicide; suicide is currently the second leading cause of death for 15-29 year olds. The incidence of suicidal and nonsuicidal self-harm behaviors is difficult to document but may be as high as 35% for adolescents. The relationship between self-harm behaviors and suicidal behaviors is not well understood but may have similar risk factors.

Because of the prevalence of these behaviors, teaching Psychological Science students about risk factors and treatments adds significantly to their development as socially responsible citizen-leaders. It also contributes to WKU's goal of identifying and helping to solve key social, health, and scientific problems, especially at a time when numerous institutions are working together to try to reduce the incidence of suicide. Moreover, teaching about suicide from a clinical psychological science perspective represents an opportunity to illustrate for students how biological, psychological and sociocultural factors interact to produce behavior. Thus, this course lays an important foundation for engaged research as well as public service that will help to improve the quality of life for citizens in the state.

2.2 Projected enrollment in the proposed course:
Approximately 25 students per year. We have taught this topic as a Special Topics course with consistent demand.

2.3 Relationship of the proposed course to courses now offered by the department:
We currently offer PSYS 440 (Abnormal Psychology). PSYS 450 (Psychology of Personality) is also related. However, both of these are very broad survey courses and cannot deal adequately with the more specialized, but important, topics of suicide and self-injury.

2.4 Relationship of the proposed course to courses offered in other departments:
Psychology offers PSY 440 (Abnormal Psychology), which is course equivalent to PSYS 440 (mentioned above) and is a broad survey course with minimal overlap to the proposed course's content. PSY 346 (Foundations of Clinical and Community Behavioral Health) is a survey course that covers knowledge and skills useful to service as a professional in community mental health agencies, and, like PSYS and PSY 440, minimally overlaps with the proposed course given that the course does not focus specifically on suicide. There appears to be no other undergraduate level courses dealing with this topic at WKU

2.5 Relationship of the proposed course to courses offered in other institutions:
Courses on the Psychology of Death and Dying are commonly found at many universities. Courses specifically focused on suicide at the undergraduate level are less common but are offered at several universities. For example, Psychology of Suicide is offered at the University of Wisconsin and at the University of Florida. At UCLA, the course is called Psychology of Death, Suicide, and Trauma

3. Discussion of proposed course:

3.1 Schedule type: Lecture

3.2 Learning Outcomes: **Upon completion of this course students will**

1. Display basic knowledge about the field of suicidology and self-injury.
2. Understand the psychological and biological theories of self-harm, risk and protective factors, assessment, treatment, and post-vention.
3. Show enhanced critical thinking skills by exploring the ethics of suicide, and evaluating current empirical research in the field.
4. Display in-depth knowledge about a specific topic within the field of self-harm.

3.3 Content outline:

1. The Suicidal Mind
2. Suicide Terms and Definitions
3. Studying Suicidal Populations
4. Theories of Suicide
5. Risk and Protective Factors (psychopathology and neurobiology)
6. Attempts and Method
7. Demographics of Suicide
8. Assessing and Managing Suicide Risk

- 9. Treatment for Suicidal Individuals
- 10. Suicide Prevention
- 11. Suicide Survivors: Post-vention
- 12. Ethics and Suicide
- 13. Nonsuicidal Self-Injury

3.4 Student expectations and requirements: Students will be evaluated on the basis of exams, discussion questions, presentations, and class participation

3.5 Tentative texts and course materials:

- 1. Jobes, D. A. (2016). *Managing Suicidal Risk; A Collaborative Approach, 2nd Edition*. New York: Guilford Press.
- 2. Joiner, T. E. (2005). *Why People Die by Suicide*. Cambridge, MA: Harvard University Press.
- 3. Shneidman, E. S. (1996). *The Suicidal Mind*. New York: Oxford University Press.
- 4. O'Connor, R. C., & Nock, M. K. (2014). The psychology of suicidal behavior. *Lancet Psychiatry, 1*, 73-85.
- 5. Van Heeringen & Mann, (2014). The neurobiology of suicide. *Lancet Psychiatry, 1*, 63-72.
- 6. Linehan, M. M. et al. (2012). Assessing and managing risk with suicidal individuals. *Cognitive and Behavioral Practice, 19*, 218-232.
- 7. Nock, M. K. (2010). Self-injury. *Annual Review of Clinical Psychology, 6*, 15-25.

4. Resources:

- 4.1 Library resources: Journal entitled *Suicide and Life Threatening Behavior* recommended
- 4.2 Computer resources: None

5. Budget implications:

- 5.1 Proposed method of staffing: Current staff
- 5.2 Special equipment needed: None
- 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 Psychological Sciences
 Ogden College Curriculum Committee
 Undergraduate Curriculum Committee
 University Senate

August 16, 2017

09-07-2017

10/02/2017

Proposal Date: March 8, 2017

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

Contact Person: Huanjing Wang, huanjing.wang@wku.edu, 270-745-2672

1. Identification of proposed course:

- 1.1 Course prefix (subject area) and number: CS 372
- 1.2 Course title: Mobile App Development
- 1.3 Abbreviated course title: Mobile App Development
- 1.4 Credit hours: 3 Variable credit (yes or no): no
- 1.5 Grade type: Standard letter grade
- 1.6 Prerequisites: Grade of C or better in CS 221
- 1.7 Course description:
Introduces and explores mobile app programming, important environment features; and mobile app development frameworks, architecture, and design.

2. Rationale:

- 2.1 Reason for developing the proposed course:
Today's applications are increasingly mobile. Computers are no longer confined to desks and laps but instead live in our pockets and hands. This course teaches students how to build apps for mobile devices.
- 2.2 Projected enrollment in the proposed course:
One session per year; 15-20 students per year
- 2.3 Relationship of the proposed course to courses now offered by the department:
No similar courses offered by the department
- 2.4 Relationship of the proposed course to courses offered in other departments:
No similar course offered by other department
- 2.5 Relationship of the proposed course to courses offered in other institutions:
Some universities offer a similar course at upper division level, such as the Michigan State University (CSE 476, Mobile Application Development), Arizona State University (CSE 494, Mobile Application Development), and Northern Kentucky University (CSC 415, Android Mobile App Development).

3. Discussion of proposed course:

- 3.1 Schedule type:
C—Lecture/Lab: Combination of formal presentation and experimental study.

3.2 Learning Outcomes:

- Understand the unique aspects of mobile application design.
- Critique mobile applications on their design pros and cons.
- Utilize rapid prototyping techniques to design and develop sophisticated mobile interfaces.
- Develop mobile app with user interactions
- Develop mobile app with data sources.
- Develop mobile app with location awareness and hardware sensors.
- Understand how to deploy mobiles.

3.3 Content outline:

- Characteristics of mobile applications
- Platforms overview
- Graphical User Interface and design principles
- How to respond user interaction, such as touch gestures
- How to work with locations and maps
- Storing and retrieving data
- How to access hardware sensors
- Testing methodologies for mobile applications
- How to deploy mobile apps
- Mobile security

3.4 Student expectations and requirements:

Students are expected to attend class (lab) and to complete assignments. They are expected to complete a term project.

3.5 Tentative texts and course materials:

Introduction to Android Application Development: Android Essentials, 5th Edition, by Joseph Anuzzi, Lauren Darcey, Shane Conder published Dec 18, 2015 by Addison-Wesley Professional.
ISBN-10: 0-13-438945-X

Android Programming Concepts by Trish Cornez, Richard Cornez
Jones & Bartlett Learning; Pap/Psc edition (October 9, 2015)
ISBN-10: 1284070700

Beginning iPhone Development with Swift: Exploring the iOS SDK, David Mark , Jack Nutting , Kim Topley , Fredrik Olsson , Jeff LaMarche, ISBN13: 978-1-484204-10-8, 2014

4. Resources:

- ### 4.1 Library resources:
- None

- 4.2 Computer resources:
Existing computer lab

5. Budget implications:

- 5.1 Proposed method of staffing:
Existing faculty
- 5.2 Special equipment needed:
Current departmental resources are sufficient
- 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 Computer Science
Ogden College Curriculum Committee
Undergraduate Curriculum Committee
University Senate

April 7, 2017

09-07-2017

10/02/2017

experience. It is very common to have a senior seminar course which prior to the capstone design project to prepare students.

3. Discussion of proposed course:

- 3.1 Schedule type: S
- 3.2 Learning Outcomes: The learning outcomes of this course include further developing the design skills of engineering students, develop teamwork skills, explore engineering ethics, and design and write the senior project proposal.
- 3.3 Content outline:
 - Project Management
 - Post graduation opportunities
 - Professional Ethics
 - Teamwork
 - Professional Licensure
- 3.4 Student expectations and requirements: Students are expected to complete assignments culminating in a project management plan for their senior project to be executed in the following course.
- 3.5 Tentative texts and course materials: Instructor provided materials

4. Resources:

- 4.1 Library resources: This course will use the same library resources as the existing CE 400, EE 400, and ME 400.
- 4.2 Computer resources: This course will use the same computing resources as the existing CE 400, EE 400, and ME 400.

5. Budget implications:

- 5.1 Proposed method of staffing: Current Engineering faculty. This course will be cross listed with the other senior seminar courses.
- 5.2 Special equipment needed: None
- 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:

Engineering Department

OSCE College Curriculum Committee

Undergraduate Curriculum Committee

5/4/17

09-07-2017

10/02/2017

**Ogden College of Science and Engineering
School of Engineering and Applied Science
Proposal to Create a New Course
(Action Item)**

Contact Person: Stacy Wilson, stacy.wilson@wku.edu, 56394

1. Identification of proposed course:

- 1.1 Course prefix (subject area) and number: ENGR 491
- 1.2 Course title: Senior Project
- 1.3 Abbreviated course title: Senior Project
(maximum of 30 characters or spaces)
- 1.4 Credit hours: 3 Variable credit (yes or no) : no
- 1.5 Grade type: standard letter grade
- 1.6 Prerequisites/corequisites: ENGR 490
- 1.7 Course description: Work in multidisciplinary student teams to execute project designed during ENGR 490. Must be taken in the semester immediately following ENGR 490.

2. Rationale:

- 2.1 Reason for developing the proposed course: This course is being created to offer a multidisciplinary capstone design opportunity to engineering students. Multidisciplinary teamwork is required by ABET, the accrediting body for engineering programs.
- 2.2 Projected enrollment in the proposed course: 20 students per year
- 2.3 Relationship of the proposed course to courses now offered by the department: CE 498, EE 401, and ME 412 are discipline specific capstone design courses currently offered in the department. ENGR 490 and ENGR 491 will comprise the capstone design sequence for engineering students on multidisciplinary projects. These courses are composed of the following steps:
 - Initiating the project (ENGR 490)
 - Planning the project (ENGR 490)
 - Executing the project (ENGR 491)
 - Monitoring and controlling the project (ENGR 491)
 - Closing the project (ENGR 491)
- 2.4 Relationship of the proposed course to courses offered in other departments: Capstone design courses are common across campus. These courses such as PHIL 496 and RELS 496 serve as capstone design in the curricula.

2.5 Relationship of the proposed course to courses offered in other institutions: All ABET accredited engineering programs are required to have a senior capstone experience.

3. Discussion of proposed course:

3.1 Schedule type: S

3.2 Learning Outcomes: The learning outcomes of this course include project execution and documentation, troubleshooting, teamwork and professional presentation skills.

3.3 Content outline:

- Project Execution
- Troubleshooting
- Documentation
- Dissemination

3.4 Student expectations and requirements: Students are expected to participate in the capstone project. Students are also expected to present the results of the project in both oral and written forms.

3.5 Tentative texts and course materials: none

4. Resources:

4.1 Library resources: This course will use the same library resources as the existing CE 498, EE 401, and ME 412.

4.2 Computer resources: This course will use the same computing resources as the existing CE 498, EE 401, and ME 412.

5. Budget implications:

5.1 Proposed method of staffing: Current Engineering faculty. This course will be cross listed with the other senior seminar courses.

5.2 Special equipment needed: None

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 Engineering

OSCE College Curriculum Committee

Undergraduate Curriculum Committee

5/4/17

09-07-2017

10/02/2017



Proposal Date: 04/01/2016

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

Contact Person: Neal Downing, AIA, neal.downing@wku.edu, 270-745-6302

1. Identification of program:

- 1.1 Current program reference number: 518
- 1.2 Current program title: Architectural Science
- 1.3 Credit hours: 89

2. Identification of the proposed program changes:

- Remove requirement of PHYS 201 in the additional courses required in the major.
- Remove requirement of SFTY 171 in the additional courses required in the major.
- Add 3 hours as Architectural Science Electives in the major.
- Add options for Principles of Economics in the additional courses required in the major.

3. Detailed program description:

Architectural Science (Old) 89			Architectural Science (New) 87		
Intro to Occupational Safety	AMS 140	1	Intro to Occupational Safety	AMS 140	1
Architectural Graphics	AMS 151	3	Architectural Graphics	AMS 151	3
Architectural Drafting	AMS 163	3	Architectural Drafting	AMS 163	3
Intro to Architecture	AMS 180	3	Intro to Architecture	AMS 180	3
3D Modeling & Imaging	AMS 251	3	3D Modeling & Imaging	AMS 251	3
Construction Methods & Materials	AMS 261	3	Construction Methods & Materials	AMS 261	3
Construction Methods & Materials Lab	AMS 262	1	Construction Methods & Materials Lab	AMS 262	1
Architectural Documentation I	AMS 263	3	Architectural Documentation I	AMS 263	3
Architectural Detailing	AMS 273	3	Architectural Detailing	AMS 273	3
Architectural Structures	AMS 282	3	Architectural Structures	AMS 282	3
Building Codes	AMS 305	3	Building Codes	AMS 305	3
Survey of Building Systems	AMS 325	3	Survey of Building Systems	AMS 325	3
AMS 351 Building Info Modeling	AMS 351	3	AMS 351 Building Info Modeling	AMS 351	3
Architectural Documentation II	AMS 363	3	Architectural Documentation II	AMS 363	3

Architectural Design Studio I	AMS 369	4		Architectural Design Studio I	AMS 369	4
Quality Assurance	AMS371	3		Quality Assurance	AMS371	3
Project Management	AMS390	3		Project Management	AMS390	3
Internship I	AMS398	1		Internship I	AMS398	1
Technology Mgmt./Sup./Team Blding	AMS430	3		Technology Mgmt./Sup./Team Blding	AMS430	3
Architectural Design Studio II	AMS 469	4		Architectural Design Studio II	AMS 469	4
Comprehensive Design	AMS 488	3		Comprehensive Design	AMS 488	3
Senior Research	AMS490	3		Senior Research	AMS490	3
Construction Management	CE 303	3		Construction Management	CE 303	3
Construction Management Lab	CE 304	1		Construction Management Lab	CE 304	1
Business Writing or Technical Writing	ENG 306 or 307	3		Business Writing or Technical Writing	ENG 306 or 307	3
Management Elective		3		Management Elective		3
Architectural Science Elective		6		Architectural Science Elective		9
Additional Required Courses for Major						
Math 117 or higher	MATH 117	3		Math 117 or higher	MATH 117	3
Safety and First Aid	SFTY 171	4				
Principles of Econ (Micro)	ECON 202	3		Intro to Economics or Principles of Economics (Micro) or Principles of Economics (Macro) or Moral Issues of Capitalism or Economics, Law, and Public Choice or Financial Management	ECON 150 or ECO 150 or ECON 202 or ECO 202 or ECON 203 or ECO 203 or ECON 375 or ECON 390 or BUS 160C	3
College Physics I	PHYS 201	4				
Technical Hours:		89		Technical Hours:		87

4. Rationale for the proposed program change:

- Remove PHYS 201
The current syllabus of AMS 282 covers vectors which was the primary rationale for requiring PHYS 201.
- Remove SFTY 171
This course is not a part of the new Colonnade Program. Most companies include safety and first aid training in their orientation of new employees. Aspects of safety are also covered in courses such as AMS 140 and AMS 262.
- Add 3 additional hours of Architectural Science Electives
Adding to the number of elective hours enables students to explore their areas of interest and focus on specialty topics.
- Add ECON 150 or ECO 150 or ECO 202 or ECON 203 or ECO 203 or ECON 375 or ECON 390 or BUS 160C as option for ECON 202
This provides more scheduling options for courses in the economics area and gives students more choices, depending upon their goals.

5. **Effective Catalog Year:** First available/Fall 2018

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

Department of Architectural & Manufacturing
Sciences

4/1/2016

OCSE Curriculum Committee

09-07-2017

Undergraduate Curriculum Committee

10/02/2017

University Senate

**Ogden College of Science and Engineering
School of Engineering and Applied Sciences
Proposal to Revise a Program
(Action Item)**

Contact Person: Shane M. Palmquist, Shane.Palmquist@wku.edu, 270-745-2919

1. Identification of program:

- 1.1 Current program reference number: 534
- 1.2 Current program title: Engineering-Civil
- 1.3 Credit hours: Current: 130 Proposed: 130

2. Identification of the proposed program changes:

- Remove from the major the following courses: CE 331 Transportation Engineering; CE 341 Fluid & Thermal Science; CE 351 Intro to Environmental Engineering; CE 373 Structural Analysis; CE 483 Elementary Structural Design; EM 221 Statics; and EM 302 Mechanics of Deformable Bodies.
- Require students in the major to register for CE 400 or ENGR 490 Senior Seminar (2 credit hours) and CE 498 or ENGR 491 Senior Project (3 credit hours).
- Require students to take 6 of the 9 credit hours of technical engineering elective from courses taught by engineering faculty and not just by civil engineering faculty.
- Require students to earn a grade of “C or better” in all major courses except for one.

3. Detailed program description:

CE Current Program

CE Proposed Program

Prefix	#	Course Title	Hrs.	Prefix	#	Course Title	Hrs.
CE	176	CE Fresh Design,	1	CE	176	CE Freshman Design,	1
ME	176	ME Fresh Design, or		ME	176	ME Freshman Design, or	
EE	101	EE Design I		EE	101	EE Design I	
CE	160	Prin. of Surveying	3	CE	160	Prin. of Surveying	3
CE	161	Surveying Lab	1	CE	161	Surveying Lab	1
CE	303	Constr. Management	3	CE	303	Constr. Management	3
Prefix	#	Course Title	Hrs.	Prefix	#	Course Title	Hrs.

CE	304	Constr. Management Lab	1	CE	304	Constr. Management Lab	1
CE	305	Risk Analysis	3	CE	305	Risk Analysis	3
CE	310	Strengths Lab	1	CE	310	Strengths Lab	1
CE	316	Equip. & Methods	3	CE	316	Equip. & Methods	3
CE	331	Transportation Eng.	3	CE	331 332	Transportation Eng.	3
CE	341 342	Fluid & Thermal Science	4	CE	341 342	Fluid & Thermal Science	4
CE	351 352	Intro. to Environmental Engineering	3	CE	351 352	Intro. to Environmental Engineering	3
CE	370	Materials of Construction	2	CE	370	Materials of Construction	2
CE	371	Matls. of Constr. Lab	1	CE	371	Matls. of Constr. Lab	1
CE	382 373	Structural Analysis	3	CE	382 373	Structural Analysis	3
CE	384 482 483	Civil Engineering Design Course	3	CE	384 482 483	Civil Engineering Design Course	3
CE	410	Soil Mechanics	3	CE	410	Soil Mechanics	3
CE	411	Soil Mechanics Lab	1	CE	411	Soil Mechanics Lab	1
CE	412	Foundation Eng.	3	CE	412	Foundation Eng.	3
CE	461	Hydrology	3	CE	461	Hydrology	3
CE	400	Senior Design Seminar	1	CE ENGR	400 490	Senior Design Seminar	2
CE	498	Senior Project	3	CE ENGR	498 491	Senior Project	3
CE		Technical Elective*	3	CE		Technical Elective*	3
CE		Technical Elective*	3	CE		Technical Elective*	3
CE		Technical Elective*	3	CE		Technical Elective*	3
AMS	163	Arch. Drafting	3	AMS	163	Arch. Drafting	3
EM	221 222	Statics	3	EM	221 222	Statics	3
EM	302 303	Mechanics of Deformable Bodies	3	EM	302 303	Mechanics of Deformable Bodies	3
TOTALS		Credit Hours	68	TOTALS		Credit Hours	68

Other Requirements

Other Proposed Requirements

Prefix	#	Course Title	Hrs.	Prefix	#	Course Title	Hrs.
MATH	136	Calculus I	4	MATH	136	Calculus I	4
MATH	137	Calculus II	4	MATH	137	Calculus II	4
Prefix	#	Course Title	Hrs.	Prefix	#	Course Title	Hrs.

MATH	237	Multivariable Calculus	4	MATH	237	Multivariable Calculus	4
MATH	331	Differential Equations	3	MATH	331	Differential Equations	3
PHYS	255	University Physics I	4	PHYS	255	University Physics I	4
PHYS	256	Physics I Lab	1	PHYS	256	Physics I Lab	1
		Science or Math Elective (See list below.)**	3			Science or Math Elective (See list below.)**	3
CHEM	120	College Chemistry I	3	CHEM	120	College Chemistry I	3
CHEM	121	Chemistry I Lab	2	CHEM	121	Chemistry I Lab	2
GEOL	111	The Earth	3	GEOL	111	The Earth	3
GEOL	113	The Earth Lab	1	GEOL	113	The Earth Lab	1
TOTALS		Credit Hours	32	TOTALS		Credit Hours	32

CE Current Program

*Students are required to complete a total of 9 credit hours of technical electives in civil engineering or a related field. A minimum of 6 credit hours must come from CE prefixed courses.

CE Proposed Program

*Students are required to complete a total of 9 credit hours of technical electives in civil engineering or a related field. A minimum of 6 credit hours must come from ~~CE prefixed~~ **courses taught by engineering faculty.**

Current CE Technical Electives

Proposed CE Technical Electives

Prefix	#	Course Title	Hrs.	Prefix	#	Course Title	Hrs.
CE	300	Floodplain Management	3	CE	300	Floodplain Management	3
CE	301	Field Experience in Floodplain Management	3	CE	301	Field Experience in Floodplain Management	3
CE	326	Engineering Law	3	CE	326	Engineering Law	3
CE	360	Est., Scheduling Bidding	3	CE	360	Est., Scheduling Bidding	3
CE	361	Estimating Lab	1	CE	361	Estimating Lab	1
CE	378	Boundary Surveying	3	CE	378	Boundary Surveying	3
CE	379	Boundary Surveying. Lab	1	CE	379	Boundary Surveying. Lab	1
CE	380	Route Surveying	3	CE	380	Route Surveying	3
CE	381	Route Surveying Lab	1	CE	381	Route Surveying Lab	1
CE	383	Structural Steel Design	3	CE	383	Structural Steel Design	3
Prefix	#	Course Title	Hrs.	Prefix	#	Course Title	Hrs.

CE	426	Adv. Construction Matls.	3	CE	426	Adv. Construction Matls.	3
CE	436	Design / Constr. Integration	3	CE	436	Design / Constr. Integration	3
CE	440	Masonry Constr.	3	CE	440	Masonry Construction	3
CE	444	Bridge Engineering	3	CE	444	Bridge Engineering	3
CE	462	Hydraulic Engineering	3	CE	462	Hydraulic Engineering	3
CE	474	Civil Eng. Design Project	1-3	CE	474	Civil Eng. Design Project	1-3
CE	475	Sel. Topics in Civil Eng.	3	CE	475	Sel. Topics in Civil Eng.	3
CE	476	Highway Construction	3	CE	476	Highway Construction	3
CE	486	Steel & Concrete Constr.	3	CE	486	Steel & Concrete Constr.	3
CE	490	UK-CE Sel. Topics (Fall)	3	CE	490	UK-CE Sel. Topics (Fall)	3
CE	491	UK-CE Sel. Topics (Spr)	3	CE	491	UK-CE Sel. Topics (Spr)	3
CM	363	Constr. Est. and Bidding	3	CM	363	Constr. Est. and Bidding	3
CM	400	Constr. Administration	3	CM	400	Constr. Administration	3
CM	426	Construction Law	3	CM	426	Construction Law	3
EE	350	Fund. of Electrical Eng.	4	EE	350	Fund. of Electrical Eng.	4
EM	313	Dynamics	3	EM	313	Dynamics	3
GISC	317	Geog. Info. Systems	4	GISC	317	Geog. Info. Systems	4
ME	220	Eng. Thermodynamics	3	ME	220	Eng. Thermodynamics	3
GISC	316	Fundamentals of GIS	4	GISC	316	Fundamentals of GIS	4
GEOL	308	Structural Geology	4	GEOL	308	Structural Geology	4
GEOL	310	Global Hydrology	3	GEOL	310	Global Hydrology	3
GEOL	415	Environmental Geology	3	GEOL	415	Environmental Geology	3
ENGR	400	Systems Engineering	3	ENGR	400	Systems Engineering	3
AMS	305	Building Codes	3	AMS	305	Building Codes	3
AMS	325	Surv. of Building Systems	3	AMS	325	Surv. of Building Systems	3
MATH	350	Adv. Engineering Math	3	MATH	350	Adv. Engineering Math	3

**Proposed List of Courses to Satisfy the Science or Math Elective

Prefix	#	Course Title	Hrs.
PHYS	265/266	University Physics II & Lab	4/1
MATH	307	Linear Algebra	3
MATH	370	Applied Tech. in Mathematics	3
STAT	301	Prob. & Applied Statistics	3
CHEM	222/223	College Chemistry II & Lab	3/2
GEOG	280	Envir. Sc. & Sustainability	4
GEOL	311	General Oceanography	3
GEOL	420	Geomorphology	4
GEOL	445	Aqueous Geochemistry	3
GEOL	465	Geophysics	3

CE Current Program:

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

- All premajor courses,
- All math courses,
- Science or math elective,
- EM 302 or 303 Mechanics of Deformable Solids,
- All CE courses including technical electives (except for one (1) 300-level or 400-level CE course),

CE Proposed Program:

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

- All premajor courses, and
- All major courses except for one.

4. Rationale for the proposed program change:

- The CE program is removing from the major the following courses: CE 331 Transportation Engineering; CE 341 Fluid & Thermal Science; CE 351 Intro to Environmental Engineering; CE 373 Structural Analysis; CE 483 Elementary Structural Design; EM 221 Statics; and EM 302 Mechanics of Deformable Bodies. These courses are being deleted. See other paper work for these deletions. These courses were required when students were part of the joint WKU/UK CE program, and these students were required to obtain 15 hours in the major from courses taught by UK faculty. These courses were only taught by UK faculty, and were counted by ICAP to meet this requirement. However, WKU now offers a standalone CE program, and no students are in the old joint program. Current students in the standalone CE program will still be required to take these courses just with a different course numbering. The courses are: CE 332 Transportation Engineering; CE 342 Fluid & Thermal Science; CE 352 Intro to Environmental Engineering; CE 382 Structural Analysis; CE 482 Elementary Structural Design; EM 222 Statics; and EM 303 Mechanics of Deformable Bodies.

**Ogden College of Science and Engineering
School of Engineering & Applied Sciences
Proposal to Revise A Program
(Action Item)**

Contact Person: Shane M. Palmquist, shane.palmquist@wku.edu, 745-2919

1. Identification of program:

- | | | |
|-----|-----------------------------------|------------------------|
| 1.1 | Current program reference number: | 534P |
| 1.2 | Current program title: | Civil Engineering-Prep |
| 1.3 | Current credit hours: | 38 or 39 |
| | Proposed credit hours: | 25 |

2. Identification of the proposed program changes:

- Delete from the pre-major CE 176 Civil Engineering Freshman Design (1 cr.), AMS 163 Architectural Drafting (3), MATH 237 Multivariable Calculus (4) or MATH 331 Differential Equations (3), Principles of Surveying and Lab CE 160/161 (3/1 cr.), and CHEM 120 and 121.
- Add to the pre-major GEOL 111 The Earth (3 cr.).
- Decrease the number of credit hours in the pre-major from 38 or 39 to 25.

3. Detailed program description:

The existing statement in the undergraduate catalog is:

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

The proposed statement in the undergraduate catalog is:

To transition from pre-major to major and to graduate with a degree in civil engineering, students must complete each of the following courses and labs with a grade of “C” or better: ENG 100, COMM 145, MATH 136 and 137, PHYS 255 and 256, EM 222, and GEOL 111. **COMM 145 will be replaced with a Human Communications (OC course).**

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

Current Program Courses	Hrs	Proposed Program Courses	Hrs
CE 176 Civil Engineering Freshman Design	1	CE 176 Civil Engineering Freshman Design	1
AMS 163 Architectural Drafting	3	AMS 163 Architectural Drafting	3
MATH 136 Calculus I	4	MATH 136 Calculus I	4
MATH 137 Calculus II	4	MATH 137 Calculus II	4
MATH 237 Multivariable Calculus or MATH 331 Differential Equations	4 or 3	MATH 237 Multivariable Calculus or MATH 331 Differential Equations	4 or 3
CE 160 Principles of Surveying	3	CE 160 Principles of Surveying	3
CE 161 Principles of Surveying Lab	1	CE 161 Principles of Surveying Lab	1
CE 303 Constr. Management	3	CE 303 Constr. Management	3
ENG 100 Freshman English	3	ENG 100 Freshman English	3
PHYS 255 University Physics I	4	PHYS 255 University Physics I	4
PHYS 256 University Physics I Lab	1	PHYS 256 University Physics I Lab	1
EM 221 or 222 Statics	3	EM 221 or 222 Statics	3
COMM 145 Fund. of Public Speaking	3	Oral Communications (OC)	3
CHEM 120 College Chemistry I	4	CHEM 120 College Chemistry I	4
CHEM 121 College Chemistry I Lab	1	CHEM 121 College Chemistry I Lab	1
		GEOL 111 The Earth	3

Total hours = 38 or 39

Total hours = 25

4. Rationale for the proposed program change:

- The program/department would like to reduce the number of classes to transition from pre-major to the major. The remaining courses are to be important key courses as they proceed through the major.

5. Proposed term for implementation: First available (Fall 2018)

6. Dates of prior committee approvals:

Department of Engineering _____ May 4, 2017 _____

Ogden College Curriculum Committee _____ 09-07-2017 _____

Undergraduate Curriculum Committee _____ 10/02/2017 _____

University Senate _____

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

Contact Person: Walter Collett email: walter.collett@wku.edu phone: 5-2016

1. Identification of program:

- 1.1 Current program reference number: 537
- 1.2 Current program title: Electrical Engineering
- 1.3 Credit hours: 57

2. Identification of the proposed program changes:

- Increase the number of credit-hours in program from 57 to 58
- EE 400 has increased from 1.0 to 2.0 hours
- Add BIOL 122, BIOL 131, and METR 121 to list of approved science electives
- Remove EM 221 from the list of approved Engineering/Science electives
- Add MATH 305 and PHYS 316 to the list of approved Engineering/Science electives
- Add ENGR 360 to the list of approved EE Technical Electives
- Permit students to take ENGR 490 in lieu of EE 400
- Permit students to take ENGR 491 in lieu of EE 401
- Modify the admission standards into the Electrical Engineering Program as follows:

PHYS 256, CS 239, EE 101, and EE 180 will remain required courses but not be in the admission standard (i.e., pre-major) to the program. NOTE: Students may still replace CS 239 with either CS 240 or CS 180; also, the older version (EE 175) of EE Design will still be accepted in place of EE 101.

COMM 145 will be replaced with a Human Communication (F-OC) course.

3. Detailed program description:

<u>Current Program</u>			<u>Proposed Program</u>		
EE 101	Design I	1	EE 101	Design I	1
EE180	Digital Circuits	3	EE180	Digital Circuits	3
EE200	Design II	2	EE200	Design II	2
EE210	Circuits & Networks I	3.5	EE210	Circuits & Networks I	3.5
EE211	Circuits & Networks II	3.5	EE211	Circuits & Networks II	3.5
EE300	Design III	1	EE300	Design III	1
EE345	Electronics	4	EE345	Electronics	4
EE380	Microprocessors	4	EE380	Microprocessors	4
EE400	Design IV	1	EE400	Design IV	2
				or	
			ENGR490		2
EE401	Senior Design	3	EE401	Senior Design	3

			or		
				ENGR491	3
EE420	Signals & Linear Systems	3	EE420	Signals & Linear Systems	3
EE431	Intro. to Power Systems	3.5	EE431	Intro. to Power Systems	3.5
EE460	Cont. Control Systems	3.5	EE460	Cont. Control Systems	3.5
EE473	EM Fields & Waves	3	EE473	EM Fields & Waves	3
	or			or	
PHYS 440	Electricity and Magnetism	3	PHYS 440	Electricity and Magnetism	3
	EE Technical Electives	12		EE Technical Electives	12
	Engineering/Science Electives	6		Engineering/Science Electives	6
Tech. Course Total:		57	Tech. Course Total:		58
<u>Other Requirements</u>			<u>Other Requirements</u>		
MATH136	Calculus I	4	MATH136	Calculus I	4
MATH137	Calculus II	4	MATH137	Calculus II	4
MATH237	Multivariable Calculus	4	MATH237	Multivariable Calculus	4
MATH331	Differential Equations	3	MATH331	Differential Equations	3
	Math Elective	3		Math Elective	3
STAT301	Probability & Statistics	3	STAT301	Probability & Statistics	3
PHYS255	University Physics I	4	PHYS255	University Physics I	4
PHYS256	University Physics I Lab	1	PHYS256	University Physics I Lab	1
PHYS265	University Physics II	4	PHYS265	University Physics II	4
	Science Elective	3		Science Elective	3
CS239	Prob Solving Comp Tech	3	CS239	Prob Solving Comp Tech	3
ECON	ECON 202 or ECON 203	3	ECON	ECON 202 or ECON 203	3
<i>Other Hours:</i>			<i>Other Hours:</i>		
39			39		

Engineering/Science Electives (take at least 6 hours)

~~EM 221~~ or EM 222 or PHYS 350

ME 365 or ME 220 or PHYS 330

ME 240 Materials and Methods of Manufacturing

ME 330 or CE 341 or CE 342

PHYS 450 Classical Mechanics II

PHYS 318 Data Acquisition Using Labview

ENGR 400 Principles of Systems Engineering

MATH 305 Introduction to Mathematical Modeling

PHYS 316 Computational Physics

EE Technical Elective (take at least 12 hours)

EE 405 EE Senior Research Seminar

EE 410/411 Computer Design

- EE 432 Power Systems II
- EE 443 Microfabrication and Mems
- EE 445 Advanced Electronics
- EE 450/451 Digital Signal Processing
- EE 461 Discrete Control Sys
- EE 462 Special Topics in Control
- EE 470/475 Communications
- EE 477 Num Tech. in Electromagnetics
- EE 479 Optoelectronics
- EE 480 Embedded Systems
- EE 490 Robotics
- ENGR 360 System Dynamics and Modeling**

Math Elective (take at least 3 hours)

- MATH 307 Linear Algebra
- MATH 350 Advanced Engineering Math
- MATH 370 Applied Techniques in Math

Science Electives (take at least 3 hours)

- CHEM 116 Intro to College Chemistry
- CHEM 120 College Chemistry I
- BIOL 120 Biological Concepts
- ENV 280 Intro to Environmental Science
- GEOL 111 The Earth
- BIOL 122 Biological Concepts: Evolution, Diversity, and Ecology**
- BIOL 131 Human Anatomy and Physiology**
- METR 121 Meteorology**

<u>Current</u>			<u>Proposed</u>		
Academic Standards for the WKU/UofL Joint Electrical Engineering Program			Academic Standards for the WKU/UofL Joint Electrical Engineering Program		
Students are admitted as a pre-major in Electrical Engineering. In order to transition from the pre-major to major and to graduate with a degree in Electrical Engineering, students must complete the following courses earning a grade of "C" or better.			Students are admitted as a pre-major in Electrical Engineering. In order to transition from the pre-major to major and to graduate with a degree in Electrical Engineering, students must complete the following courses earning a grade of "C" or better.		
EE 101	EE Design I**	1 hr.	EE 101	EE Design I**	1 hr.
EE 180	Digital Circuits	4 hrs.	EE 180	Digital Circuits	4 hrs.
EE 210	Circuits & Networks I	3.5 hrs.	EE 210	Circuits & Networks I	3.5 hrs.
ENG 100	Composition	3 hrs.	ENG 100	Composition	3 hrs.
COMM 145or161	Public Speaking	3 hrs.	COMM 145or161	Public Speaking	3 hrs.
Human Communication (F-0C)			Human Communication (F-0C)		
MATH 136	Calculus I*	4 hrs.	MATH 136	Calculus I*	4 hrs.
MATH 137	Calculus II*	4 hrs.	MATH 137	Calculus II*	4 hrs.
PHYS 255/256	Physics I/Lab*	4 hrs.	PHYS 255/256	Physics I/Lab*	4 hrs.
PHYS 265	Physics II*	4 hrs.	PHYS 265	Physics II*	4 hrs.
CS 239	Problem Solving Comp Tech^	3 hrs.	CS 239	Problem Solving Comp Tech^	3 hrs.
*Older versions of Calculus and Physics are allowed (MATH 126, MATH 227, PHYS 250/251, PHYS 260/261)			*Older versions of Calculus and Physics are allowed (MATH 126, MATH 227, PHYS 250/251, PHYS 260)		

^ Students can replace CS 239 with (CS 240 or CS 180) ** Older version of EE Design I (EE 175) is also allowed	^ Students can replace CS 239 with (CS 240 or CS 180) ** Older version of EE Design I (EE 175) is also allowed

4. Rationale for the proposed program change:

- **Increase the number of credit-hours in program from 57 to 58.**
EE 400 has increased from a 1.0 credit hour course to a 2.0 credit hour course.
- **EE 400 has increased from 1.0 to 2.0 hours.**
All programs in the Department of Engineering require a two semester senior capstone experience. In order to harmonize of the programs it was decided that the first semester of the course should be given 2.0 credit hours. It is believed that the amount of work required in the course was undervalued at 1.0 credit hours. This change will also help harmonize the three different engineering programs and better allow multi-disciplined teams.
- **Add BIOL 122 to list of approved science electives**
BIOL 122 – Biological Concepts: Evolution, Diversity, and Ecology – will be added as the similar course BIOL 120 – Biological Concepts: Cells Metabolism and Genetics – is currently on the list of approved science electives.
- **Add BIOL 131 to list of approved science electives**
Students interested in biomedical engineering may be interested in this course as a science elective.
- **Add METR 121 to list of approved science electives**
Adding this course to the list of approved science elective will provide more flexibility to students in satisfying the science requirement.
- **Remove EM 221 from list of approved Engineering/Science electives**
EM 221 is a course offered by the University of Kentucky which was commonly taught when the engineering programs were joint with UK and U of L. The programs are no longer joint programs, and this course will no longer be taught to our students.
- **Add MATH 305 and PHYS 316 to the list of approved Engineering/Science electives.**
Both courses are seen as very relevant to the practice of engineering and should be included in the list of approved Engineering/Science courses.
- **Add ENGR 360 to the list of approved EE Technical Electives**
This course was developed specifically to teach to electrical engineering students and interested mechanical engineering students. The EE faculty agree that the content is acceptable in satisfying the goals of the EE Tech Elective category.
- **Permit students to take ENGR 490 in lieu of EE 400**
The Engineering Department has developed a common version of the first-semester senior project experience, which will be acceptable to take in place of the current EE 400.
- **Permit students to take ENGR 491 in lieu of EE 401**
The Engineering Department has developed a common version of the second-semester senior project experience, which will be acceptable to take in place of the current EE 401.
- **Modify the admission standards into the Electrical Engineering Program.**

PHYS 256 will remain a required course but not be in the pre-major to the program.

The physics department allows student to progress to PHYS 265 if they pass (with a “C” or higher) PHYS 255. Students who fail or earn a “D” in the lab are still allowed to progress to PHYS 265.

Replace COMM 145 with the Human Communication (F-OC) requirement as part of the pre-major requirements. For most students this will be satisfied by COMM 145.

CS 239, EE 101, and EE 180 will remain required courses but not be included in the pre-major courses. Removing these courses from the pre-major requirement will better align the Electrical Engineering program pre-major with the pre-majors in the Civil and Mechanical Engineering programs, and with the new ‘Engineering’ pre-major.

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

First available (Fall 2018)

6. Dates of prior committee approvals:

Engineering Department: 5/4/2017

Ogden College Curriculum Committee 09-07-2017

Undergraduate Curriculum Committee 10/02/2017

University Senate _____

Attachment: Program Inventory Form

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

Contact Person: Chris Byrne, email: chris.byrne@wku.edu, phone: 745-6286

1. Identification of program:

- 1.1 Current program reference number: 543
- 1.2 Current program title: Mechanical Engineering
- 1.3 Credit hours: 60.5 hrs in technical courses, 32 or 33 hrs in mathematics and science, 30 hrs in colonnade for total of 122.5 or 123.5 hours.

2. Identification of the proposed program changes:

- Add ENGR490 and ENGR 491 as senior project options to ME400 and ME412
- Modify the admission standards into the Mechanical Engineering Program.
The following courses will remain required but not be in the admission standard to the program; ME 176, ME 180, MATH 237, PHYS 265/266, and ME 240/241. Also COMM 145 or COMM 161 will be replaced with a Human Communication (F-OC). ENG 100 will be replaced with a College Composition (F-W1). All must have a grade of C or higher.
- Remove the following courses from the list of approved mathematics and science electives; PH 280 (and equivalent), METR 121, GEOL 111, GEOL 112.
- Add the following courses to the approved list of technical electives; ENGR 360, ENGR 400, EE 460, ME 321, PHYS 318.
- Modify the academic standards for graduation by removing the following courses from the list of those requiring a grade of C or higher; ME 310, ME 330, ME 347, MATH 331.

3. Detailed program description:

<u>Current Technical Courses</u>			<u>Proposed Technical Courses</u>		
ME 176	Freshman Design	1	ME 176	Freshman Design	1
ME 180	Freshman Design II	3	ME 180	Freshman Design II	3
ME 240	Materials and Methods	3	ME 240	Materials and Methods	3
ME 241	Materials and Methods LAB	1	ME 241	Materials and Methods LAB	1
EM 221	UK Statics	3	EM 221 —UK Statics		3
	or EM 222, WKU Statics, 3hrs		or EM 222, WKU Statics, 3hrs		
EE 210	Circuits & Networks 1	3.5	EE 210	Circuits & Networks 1	3.5
ME 200	Sophomore Design	3	ME 200	Sophomore Design	3
EM 313	Dynamics	3	EM 313	Dynamics	3
EM 302	UK Mechs. of D. Solids	3	EM 302 —UK Mechs. of D. Solids		3
	or EM303 WKU Mechs. of D. S.,3hrs		or EM 303 WKU Mechs. of D. S., 3hrs		
ME 347	Mech. Systems Lab.	1	ME 347	Mech. Systems Lab.	1
ME 220	Engineering Thermo. I	3	ME 220	Engineering Thermo. I	3
ME 344	Mechanical Design	3	ME 344	Mechanical Design	3
ME 300	Junior Design	2	ME 300	Junior Design	2

ME 310 Eng. Instru. & Exp.	3	ME 310 Eng. Instru. & Exp.	3
ME 330 Fluid Mechanics	3	ME 330 Fluid Mechanics	3
ME 332 Fluids Mechanics Lab	1	ME 332 Fluids Mechanics Lab	1
ME 325 Heat Transfer	3	ME 325 Heat Transfer	3
ME 333 Heat Transfer Lab	1	ME 333 Heat Transfer Lab	1
ME 400 Mech. Engr. Design	2	ME 400 Mech. Engr. Design	2
ME 412 ME Senior Project	3	or ENGR 490, 2hrs	
ME Technical Elective	3	ME 412 ME Senior Project	3
ME Technical Elective	3	or ENGR 491, 3hrs	
ME Technical Elective	3	ME Technical Elective	3
ME Technical Elective	3	ME Technical Elective	3
ME Technical Elective	3	ME Technical Elective	3
ME Technical Elective	3	ME Technical Elective	3
Technical Course Total:	60.5	Technical Course Total:	60.5
<u>Other Requirements</u>		<u>Other Requirements</u>	
MATH 136 Calculus I	4	MATH 136 Calculus I	4
MATH 137 Calculus II	4	MATH 137 Calculus II	4
MATH 237 Multivariable Calculus	4	MATH 237 Multivariable Calculus	4
MATH 331 Differential Equations	3	MATH 331 Differential Equations	3
PHYS 255 University Physics I	4	PHYS 255 University Physics I	4
PHYS 256 University Physics I Lab	1	PHYS 256 University Physics I Lab	1
PHYS 265 University Physics II	4	PHYS 265 University Physics II	4
PHYS 266 University Physics II Lab	1	PHYS 266 University Physics II Lab	1
Math/Science Elective	3	Math/Science Elective	3
CHEM 120/121 College Chemistry 1/Lab	5	CHEM 120/121 College Chemistry 1/Lab	5
or CHEM 116/106	4	or CHEM 116/106	4
<i>Other Required Mathematics and Science Hours:</i>	32 or 33	<i>Other Required Mathematics and Science Hours:</i>	32 or 33
Students must also satisfy the WKU Colonnade Program (General Education requirements)		Students must also satisfy the WKU Colonnade Program (General Education requirements)	

Math/Science Electives (take at least 3 hours)

ASTR 214 GENERAL ASTRONOMY

BIOL 120/121 BIOLOGICAL CONCEPTS: CELLS METABOLISM AND GENETICS

BIOL 122/123: BIOLOGICAL CONCEPTS: EVOLUTION, DIVERSITY, AND ECOLOGY

BIOL 207: GENERAL MICROBIOLOGY

CHEM 222/223: COLLEGE CHEMISTRY II

PHYS 316: COMPUTATIONAL PHYSICS

PHYS 318: DATA ACQUISITION USING LABVIEW
 PHYS 320: INTRODUCTORY MODERN PHYSICS I
 MATH 305: INTRODUCTION TO MATHEMATICAL MODELING
 MATH 307: INTRODUCTION TO LINEAR ALGEBRA
 MATH 310: INTRODUCTION TO DISCRETE MATHEMATICS
 MATH 370: APPLIED TECHNIQUES IN MATHEMATICS
 STAT 301: INTRODUCTORY PROBABILITY AND APPLIED STATISTICS

ME Technical Elective (take at least 12 hours)

ME 494: WKU – ME Selected Topics
 ME 495: WKU – ME Selected Projects
 ME 496: WKU – ME Selected Topics
 ME 497: WKU – ME Selected Topics
 ME 498: UK – ME Selected Topics
 ME 499: UK – ME Selected Topics
 ENGR 360 MODELING AND SIMULATION OF DYNAMIC SYSTEMS
 ENGR 400 SYSTEMS ENGINEERING
 EE 460 CONTINUOUS CONTROL SYSTEMS
 ME 321 THERMODYNAMICS II
 PHYS 318 DATA ACQUISITION USING LABVIEW

Admissions standards, from pre-major to major in mechanical engineering:

<u>Current</u>	<u>Proposed</u>																																																																																							
<p>Academic Standards for the WKU Mechanical Engineering Program Students are admitted as a pre-major in Mechanical Engineering. In order to transition from the pre-major to major and to graduate with a degree in Mechanical Engineering, students must complete the following courses earning a grade of "C" or better.</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td>ME 176</td><td>ME Freshman Design</td><td style="text-align: right;">1 hr.</td></tr> <tr><td>ME 180</td><td>Freshman Design II</td><td style="text-align: right;">3 hrs.</td></tr> <tr><td>ME 240/241</td><td>Mat. Meth of Man./Lab</td><td style="text-align: right;">4hrs</td></tr> <tr><td>ENG 100</td><td>Composition</td><td style="text-align: right;">3 hrs.</td></tr> <tr><td>COMM 145or161</td><td>Public Speaking</td><td style="text-align: right;">3 hrs.</td></tr> <tr><td>MATH 136</td><td>Calculus I</td><td style="text-align: right;">4 hrs.</td></tr> <tr><td>MATH 137</td><td>Calculus II</td><td style="text-align: right;">4 hrs.</td></tr> <tr><td>MATH 237</td><td>Multivariable Calculus</td><td style="text-align: right;">4 hrs</td></tr> <tr><td>PHYS 255/256</td><td>Physics I/Lab</td><td style="text-align: right;">5 hrs.</td></tr> <tr><td>PHYS 265/266</td><td>Physics II/Lab</td><td style="text-align: right;">5 hrs.</td></tr> <tr><td>CHEM 120/121</td><td>Chemistry/Lab</td><td style="text-align: right;">5 hrs.</td></tr> <tr><td></td><td>or CHEM 116/106,</td><td style="text-align: right;">4 hrs.</td></tr> <tr><td>EM 221</td><td>UK Statics</td><td style="text-align: right;">3 hrs</td></tr> <tr><td></td><td>or EM222 WKU Statics,</td><td style="text-align: right;">3 hrs</td></tr> </table>	ME 176	ME Freshman Design	1 hr.	ME 180	Freshman Design II	3 hrs.	ME 240/241	Mat. Meth of Man./Lab	4hrs	ENG 100	Composition	3 hrs.	COMM 145or161	Public Speaking	3 hrs.	MATH 136	Calculus I	4 hrs.	MATH 137	Calculus II	4 hrs.	MATH 237	Multivariable Calculus	4 hrs	PHYS 255/256	Physics I/Lab	5 hrs.	PHYS 265/266	Physics II/Lab	5 hrs.	CHEM 120/121	Chemistry/Lab	5 hrs.		or CHEM 116/106,	4 hrs.	EM 221	UK Statics	3 hrs		or EM222 WKU Statics,	3 hrs	<p>Academic Standards for the WKU Mechanical Engineering Program Students are admitted as a pre-major in Mechanical Engineering. In order to transition from the pre-major to major and to graduate with a degree in Mechanical Engineering, students must complete the following courses earning a grade of "C" or better.</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td colspan="3"></td><td style="text-align: right;">College Composition (F-W1)</td><td style="text-align: right;">3 hrs.</td></tr> <tr><td colspan="3"></td><td style="text-align: right;">Human Communications (F-OC)</td><td style="text-align: right;">3</td></tr> <tr><td colspan="5" style="padding-left: 20px;">hrs.</td></tr> <tr><td>MATH 136</td><td>Calculus I</td><td></td><td></td><td style="text-align: right;">4 hrs.</td></tr> <tr><td>MATH 137</td><td>Calculus II</td><td></td><td></td><td style="text-align: right;">4 hrs.</td></tr> <tr><td>PHYS 255/256</td><td>Physics I/Lab</td><td></td><td></td><td style="text-align: right;">5 hrs.</td></tr> <tr><td>CHEM 120</td><td>Chemistry</td><td></td><td></td><td style="text-align: right;">4 hrs.</td></tr> <tr><td></td><td>or CHEM 116,</td><td></td><td></td><td style="text-align: right;">3 hrs.</td></tr> <tr><td>EM 222</td><td>Statics</td><td></td><td></td><td style="text-align: right;">3 hrs</td></tr> </table>				College Composition (F-W1)	3 hrs.				Human Communications (F-OC)	3	hrs.					MATH 136	Calculus I			4 hrs.	MATH 137	Calculus II			4 hrs.	PHYS 255/256	Physics I/Lab			5 hrs.	CHEM 120	Chemistry			4 hrs.		or CHEM 116,			3 hrs.	EM 222	Statics			3 hrs
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4. Rationale for the proposed program change:

- Add ENGR 490 and ENGR 491 as senior project options to ME 400 and ME 412
Including these courses will allow civil, electrical or mechanical engineering students to form hybrid teams for their senior capstone experience.
- Modify the admission standards into the Mechanical Engineering Program. The following courses will remain required but not be in the admission standard to the program; ME 176, ME 180, MATH 237, PHYS 265/266, and ME 240/241. Also COMM145 or COMM161 will be replaced with a Human Communication (F-OC). ENG100 will be replaced with a College Composition (F-W1). All must have a grade of C or higher.

Replacing COMM 145 or COMM 161 with F-OC, and ENG100 with F-W1 provides clarity to the requirements of the Colonnade Program. The reduced number of courses for admission to the major will be done simultaneous with moving the use of the major as a course prerequisite from ME 300 to ME 200. This will result in fewer obstacles while progressing through the curriculum while providing consistency of the requirement between electrical, civil and mechanical programs.

- Remove the following courses from the list of approved mathematics and science electives; PH 280 (and equivalent), METR 121, GEOL 111, and GEOL 112.

There are multiple other options in the requirement that better reflect the intent of building upon mathematics and science courses typically taken in the first year of the program.

- Add the following courses to the approved list of technical electives; ENGR 360, ENGR 400, EE 460, ME 321, and PHYS 318.
The inclusion of these expands the topical breadth available to students while maintaining the technical rigor expected of the requirement. These have been allowed multiple times already through iCAP exception forms.

- Modify the academic standards for graduation by removing the following courses from the list of those requiring a grade of C or higher; ME 310, ME 330, ME 347, and MATH 331.

A shortened list will result in fewer obstacles to progress through the curriculum, and is being done simultaneous with capturing the C or higher requirement as prerequisites for specific program courses. This will result in fewer delays to graduation.

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

Fall 2018

6. Dates of prior committee approvals:

Department of Engineering	<u>4 May 2017</u>
Ogden College Curriculum Committee	<u>09-07-2017</u>
University Curriculum Committee	<u>10/02/2017</u>
University Senate	<u></u>

Attachment: Program Inventory Form