Curriculum Course Request WES Change Course IEE 2610 - A-2018-IEM-91; effective term: 202040

Steven E Butt
Tue 12/18/2018 7:13 PM
To: Raja G Aravamuthan <raja.aravamuthan@wmich.edu>; Said M Abubakr <said.abubakr@wmich.edu>
Cc: Holly Blanks <holly.blanks@wmich.edu>

2 attachments (77 KB)
IEE 2610 Syllabus_Generic_R11.docx; IEE 2610_R03_Assessing WMU Essential Studies Student Learning Outcomes B...docx;

Please verify your data for New Curriculum Course Request for department: IEM; college: A.
Go to the following URL to complete your worklist items: https://bwfp1.cc.wmich.edu:7102/wfbprod

Date of request: 12-NOV-2018
Request ID: A-2018-IEM-91
College: A
Department: IEM
Initiator name: Larry Mallak
Initiator email: Larry.mallak@wmich.edu
Proposed effective term: 202040
Does course need General Education approval?: Y
Will course be used in teacher education?: N
If 5000 level course, prerequisites apply to: U
Proposed course data:
WES Change Course IEE 2610
Specific Course Change type selected: WMU Essential Studies - Level 1: Foundations

1. Existing course prefix and number:
IEE 2610

2. Level 1: Foundations
Indicate which course category the course should be placed in:
Oral and Digital Communication

3. How are you going to address this in your course?
https://outlook.office.com/owaar?realm=WMICH.EDU&exsvurl=1&ll-cc=1033&modurl=0
or need exists? What is the estimated enrollment? What other factors make your proposal beneficial to students? Initial WMU Essential Studies review and approval.

L. Effects on resources. Explain how your proposal would affect department and University resources, including faculty, equipment, space, technology, and library holdings. Tell how you will staff additions to the program. If more advising will be needed, how will you provide for it? How often will course(s) be offered? What will be the initial one-time costs and the ongoing base-funding costs for the proposed program? (Attach additional pages, as necessary.)

Fall & Spring semesters--two large lecture sections with 115 student capacity and approximately 9 lab sections offered with 25 student capacity. Summer term--one large lecture with 75 student capacity and 3 lab sections offered with 25 student capacity. Not offered online. All sections use the same syllabus and assessments. The course coordinator oversees all instructors and ensures uniform use of the syllabus, content, assignments, and assessments across all sections.

M. With the change from General Education to WMU Essential Studies, this question is no longer used.

For courses requesting approval as a WMU Essential Studies course, a syllabus identifying the student learning outcomes and an action plan for assessing the student learning outcomes must be attached in the Banner Workflow system.

Not Applicable

N. (Undergraduate proposals only) Describe, in detail, how this curriculum change affects transfer articulation for Michigan community colleges. For course changes, include detail on necessary changes to transfer articulation from Michigan community college courses. For new majors or minors, describe transfer guidelines to be developed with Michigan community colleges. For revisions to majors or minors, describe necessary revisions to Michigan community college guidelines. Department chairs should seek assistance from college advising directors or from the admissions office in completing this section.

Initial WMU Essential Studies review and approval.

O. Current catalog copy:
Introduction to statistical methodology emphasizing applications in engineering. Topics include descriptive and inferential statistics, regression, analysis of variance, and design of experiments.

Prerequisites & Corequisites: Prerequisite: MATH 1220 or 1700.

Credits: 3 hours

Lecture Hours - Laboratory Hours: (2 - 3)

P. Proposed catalog copy:
Introduction to statistical methodology emphasizing applications in engineering. Topics include descriptive and inferential statistics, regression, analysis of variance, and design of experiments. This course meets the student learning outcomes in the Western Michigan University Essential Studies Level 1 – Foundations, Oral & Digital Communication course category.

Prerequisites & Corequisites: Prerequisite: MATH 1220 or 1700.

Credits: 3 hours

Lecture Hours - Laboratory Hours: (2 - 3)

Department Curriculum Chair approver: Larry Mallak

Department Curriculum Chair comment:

Date: 18-DEC-2018
Course Syllabus: IEE 2610 Engineering Statistics  
(All Sections) Rev. 12/18/18

Catalog Description:  
Introduction to statistical methodology emphasizing applications in engineering. Topics include descriptive and inferential statistics, regression, analysis of variance, and design of experiments. Includes applying course topics and concepts to contemporary problems through lab activities and assignments that emphasize selection and application of methods, interpretation of analyses, and effectively communicating and presenting findings. This course meets the student learning outcomes in the Western Michigan University Essential Studies Level 1 – Foundations, Oral & Digital Communication course category.

Prerequisites:  
MATH 1220 or MATH 1700 (Calculus I)

Fall 20** Section Information:

<table>
<thead>
<tr>
<th>Type</th>
<th>ID</th>
<th>CRN</th>
<th>Day(s)</th>
<th>Time</th>
<th>Location</th>
</tr>
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<tbody>
<tr>
<td>Lecture</td>
<td>A</td>
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<td>Lecture</td>
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<tr>
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<td>Lab</td>
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Course Instructors:

Jim Burns, Assistant Professor*  
IEE&EM Department  
Office: E-213 Floyd Hall  
Email: j.burns@wmich.edu  
Office Hours:

Lab Instructor  
Department  
Office:  
Email:  
Office Hours:

Lab Instructor  
Department  
Office:  
Email:  
Office Hours:

Lab Instructor  
Department  
Office:  
Email:  
Office Hours:

* Denotes lead instructor for course.

Required Course Materials:


Note: Unlicensed copies of material are not permitted in lectures or labs. 2-hour Reserve via Waldo Library Services: Probability and Statistics for Engineers, Call Number: TA340 .S33 2011
Course Syllabus: IEE 2610 Engineering Statistics
(All Sections) Rev. 12/18/18

Course Grading Scale:

<table>
<thead>
<tr>
<th>Category</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Lab Assignments and Case Study</td>
<td>25%</td>
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<tr>
<td>Homework, Quizzes, Other Misc. Activities</td>
<td>20%</td>
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<tr>
<td>In-Class Exams (2)</td>
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<tr>
<td>Highest Score</td>
<td>17.5%</td>
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<tr>
<td>Middle Score</td>
<td>12.5%</td>
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<tr>
<td>Final Exam</td>
<td>20%</td>
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<td>Course Engagement</td>
<td>5%</td>
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<th>Grade</th>
<th>Percentile Range</th>
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<td>75-80</td>
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<td>DC</td>
<td>65-70</td>
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<td>D</td>
<td>60-65</td>
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<td>E</td>
<td>&lt; 60</td>
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Course Policies:

Grading: Grading Policies provided in this syllabus are tentative and adjustments may be necessary in certain circumstances. Any changes will be announced in class and an updated syllabus will be published.

The official grade record for all graded work in this course is eLearning, so be sure to review your scores often to ensure they are accurate and accounted for. The lab score will be dropped from your final grade calculation.

Questions on most graded work can be directed to either your lab instructor or the lead instructor. If you believe an item has been scored incorrectly, you may request that it be reviewed by the lead instructor within 7 days from the grade’s release on eLearning or its return to you, whichever is later.

Extra credit opportunities in this course are limited. Any extra credit will be announced in class and will be made available to all sections of the course. Individual extra credit opportunities are generally not available.

Schedule: A course schedule will be provided and will be updated as necessary to reflect changes to important events or content. Please check it regularly. Changes will also be announced in class and using email.

Attendance: Attendance is mandatory for both lecture and laboratory sessions. Any assigned work not submitted due to absence or tardiness will receive a score of zero with no make-up. This includes, lab assignments, homework assignments, and in-class exams. Any exceptions must be arranged prior to the prior to the date of an upcoming known absence. Supporting documentation is generally necessary.

You are required to attend the lecture and lab section you registered for. If you must miss a lecture or lab, you can attend a different lab section if it is arranged with the lab instructor and lead instructor before your scheduled lab. If you must miss your usual lecture you may attend the other section (please let us know and please don't let it become a frequent occurrence). Exceptions for scheduled exams will only be allowed in extreme circumstances.

Electronic Devices: Electronic devices, including but not limited to cell phones, tablets, computers, watches, headphones, earbuds are not permitted to be used during lectures or labs. The use of any electronic device that is disruptive will negatively impact your course engagement score. Talking on the phone, texting, watching programs, playing games, using social media, internet browsing, using earphones, and instant messaging are examples of disruptive activities. The exception to this rule is that computers/tablets may be used for notetaking provided it is not disruptive. The use of electronic devices to take photographs or to take audio/video recordings is prohibited unless prior arrangements are made.

Assignments: Several major homework assignments will be given. These will be posted on the course webpage and are to be turned in within the first 5 minutes of your lecture session on the day they are due. Late assignments will not
Instructors will regularly check email during normal business hours, Monday through Friday, and periodically during the weekend. We will make every reasonable effort to respond to email inquiries within 24 hours. When composing an email, be sure your question/issue is stated clearly, concisely, that all information necessary to answer your question is provided. This will help ensure a fast response.

**Engagement:** The course engagement score is based on attendance, timely completion of assignments, your effort during labs as assessed by your lab instructor, and adherence to the course policies. Significant and/or repeated lack of engagement or violations of course policies can result in the loss of all credit for the engagement score.

Being fully engaged also means to act in a respectful, professional, and civil manner in all aspects of this course. This includes lectures, labs, examinations, office visits, open discussions, interpersonal communication, and electronic communication. This is the expectation for student conduct and you can expect the same level of engagement from the course instructors.

**University Policies & Guidelines:**

**Academic Honesty Policy:** Students are responsible for making themselves aware of and understanding the University policies and procedures that pertain to Academic Honesty. These policies include cheating, fabrication, falsification and forgery, multiple submission, plagiarism, complicity and computer misuse. The academic policies addressing Student Rights and Responsibilities can be found in the Undergraduate Catalog at [http://catalog.wmich.edu/content.php?catid=24&navoid=974](http://catalog.wmich.edu/content.php?catid=24&navoid=974) and the Graduate Catalog at [http://catalog.wmich.edu/content.php?catid=25&navoid=1030](http://catalog.wmich.edu/content.php?catid=25&navoid=1030). If there is reason to believe you have been involved in academic dishonesty, you will be referred to the Office of Student Conduct. You will be given the opportunity to review the charge(s) and if you believe you are not responsible, you will have the opportunity for a hearing. You should consult with your instructor if you are uncertain about an issue of academic honesty prior to the submission of an assignment or test.

*The penalty for confirmed academic dishonesty ranges from reduction in grade to failure of the course.*

**Accommodations for Disabilities:** Both in compliance with and in the spirit of the Americans with Disabilities Act (ADA), we would like to work with you if you have a disability that is relevant to the work in this course. If you have a documented disability and wish to discuss reasonable academic accommodations, please contact your instructor in a timely fashion at the beginning of the semester. You may also contact the Office of Disability Services for Students at 269-387-2116 (or at wmich.edu/disabilityservices).

**Harassment, Violence, Stalking:** Students and instructors are responsible for making themselves aware of and abiding by the “Western Michigan University Sexual and Gender-Based Harassment and Violence, Intimate Partner Violence, and Stalking Policy and Procedures” related to prohibited sexual misconduct under Title IX, the Clery Act and the Violence Against Women Act (VAWA) and Campus Safe. Under this policy, responsible employees (including instructors) are required to report claims of sexual misconduct to the Title IX Coordinator or designee (located in the Office of Institutional Equity). Responsible employees are not confidential resources. For a complete list of resources and more information about the policy see [www.wmich.edu/sexualmisconduct](http://www.wmich.edu/sexualmisconduct).

**Civility:** The WMU the Faculty Senate has approved a general aspirational statement related to civility. It may be found at [https://wmich.edu/sites/default/files/attachments/u370/2016/Civility%20Stmt.7-27-16_0.pdf](https://wmich.edu/sites/default/files/attachments/u370/2016/Civility%20Stmt.7-27-16_0.pdf).
Assessing WMU Essential Studies Student Learning Outcomes
Rev. 12/18/18

Student Learning Outcomes Templates: The templates are designed for each of the 12 categories within the WMU Essential Studies Program. The templates have been created to help departments/units consider the assignments and/or learning activities they will use in addressing the WMU Essential Studies Student Learning Outcomes (SLO) and assessing the degree to which the outcomes are met. Please provide requested information within the template, which applies to the specific level and category of the course that is being submitted for review. Note that one assignment or learning activity may be used to address multiple outcomes.

WMU Essential Studies Student Learning Objectives (SLO) Must be Addressed: The expectation is for the course to address all of the Student Learning Outcomes established for the category.

☐ The Foundations Level has four categories and two required Student Learning Outcomes for each category.

☐ The Exploration and Discovery level has six categories and two Student Learning Outcome, one required Student Learning Outcome and one Student Learning Outcome to be chosen from the menu within the level.

☐ The Connections level has two categories and a total of three Student Learning Outcomes. One is required and two to be chosen from the menu within the level.

On the appropriate template, please provide the following for each WMU Essential Studies Student Learning Outcome:

☐Activities and/or assignments used to help students achieve the student learning outcome established for the category. Using the rubric aligned with the student learning outcome please describe how the activities and/or assignments will meet the criteria in the rubric.

☐When the assessments of the student learning outcomes will take place

<table>
<thead>
<tr>
<th>WMU Essential Studies Student Learning Outcome</th>
<th>Assignments and/or Learning Activities that meet the criteria within the rubric that is aligned with the SLO</th>
<th>When the SLO assessment will take place</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Demonstrate effective and appropriate oral and digital communications</td>
<td>Case Study: Students will develop and deliver presentations to communicate findings drawn from an in-depth analysis of a problem. Students will utilize graphical visualizations and oral communication best-practices while presenting to an audience of their peers from various engineering disciplines. Draft presentations that address the case study problem and the progress of the analyses will be given. Students will receive feedback from the instructor and their peers on their ability to employ effective oral and digital communication practices.</td>
<td>Draft presentations evaluated: Week 7, Lab 6. Revised draft presentations evaluated: Week 10, Lab 8. Final presentations evaluated: Week 12, Lab 10.</td>
</tr>
</tbody>
</table>