Course Change Request

Date Submitted: 02/26/18 12:15 pm

Viewing: ENGR 410 : Global Engineering Design

Last edit: 02/27/18 8:23 am

Changes proposed by: ehoy

Catalog Pages referencing this course
ENGR - Engineering (ENGR)
International and Cultural Diversity Requirements

Programs referencing this course

Faculty Senate Number

Contact(s)

<table>
<thead>
<tr>
<th>Name</th>
<th>E-mail</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eileen Hoy</td>
<td><a href="mailto:eho@tamu.edu">eho@tamu.edu</a></td>
<td>979-458-4953</td>
</tr>
</tbody>
</table>

Rationale for Course

The proposed changes are part of a routine curriculum review.

Course prefix    ENGR  
Course number     410

Department        College of Engineering
College/School     College of Engineering
Academic Level     Undergraduate

Undergraduate course level justification (Select One)

Academic Level     Graduate
(alternate)

Effective term     2018-2019

Complete Course Title
Global Engineering Design

Abbreviated Course Title
GLOBAL ENGINEERING DESIGN

Catalog course description
Intercultural models and their application to engineering design in diverse, multinational and multidisciplinary settings; engineering design project working in international teams of students, faculty and industry experts; applying engineering skills to the project; includes the study and application of intercultural models, global enterprise fundamentals and remote collaboration technologies; required for the International Engineering Certificate.

Prerequisites and Restrictions
Junior or senior classification or approval of instructor.

Concurrent Enrollment  No

Should catalog prerequisites / concurrent enrollment be enforced?  No

In Workflow
1. CLEN Department Head
2. Curricular Services Review
3. EN Committee Preparer UG
4. EN Committee Chair UG
5. EN College Dean UG
6. UCC Preparer
7. UCC Chair
8. Faculty Senate Preparer
9. Faculty Senate
10. Provost II
11. President
12. Curricular Services
13. Banner

Approval Path
1. 02/26/18 9:17 pm
   Tim Jacobs (tjacobs):
   Approved for CLEN Department Head
2. 02/27/18 8:24 am
   Sandra Williams (sandra-williams):
   Approved for Curricular Services Review
3. 02/28/18 2:09 pm
   Eileen Hoy (ehoy):
   Approved for EN Committee Preparer UG
4. 03/02/18 9:33 am
   Prasad Enjeti (enjeti):
   Approved for EN Committee Chair UG
5. 03/02/18 9:38 am
   Prasad Enjeti (enjeti):
   Approved for EN College Dean UG
6. 03/05/18 9:06 am
   Sandra Williams (sandra-williams):
   Approved for UCC Preparer
7. 03/09/18 3:33 pm
   Sandra Williams (sandra-williams):
   Approved for UCC Chair

https://nextcatalog.tamu.edu/courseleaf/approve/
Crosslisted: No  Crosslisted With: No

Semester: 0-3  Credit: 0-3  Hour(s): 0-3
Contact Hour(s): 0-3  Lecture: 0-3  Lab: 0  Other: 0  Total: 0-3

Repeatable for credit?: No  Three-peat?: Yes

CIP/Fund Code: 1401010006  Default Grade Mode: Letter Grade(G)
Alternate Grade Modes: Satisfactory/Unsatisfactory
Method of instruction: Lecture

Will sections of this course be taught as non-traditional? (i.e., parts of term, distance education): Yes

Learning Outcomes:
Meets traditional face-to-face learning outcomes.

Describe how learning outcomes are met or provide justification why they are not met.
Learning outcomes are met in the same manner as the traditional, on-campus sections; the study abroad sections are still face-to-face with a Texas A&M University instructor.

Hours:
Meets traditional face-to-face hours.

Describe how hours are met or provide justification why they are not met.
Study Abroad sections are scheduled to meet the same lecture, lab and recitation requirements as a traditional, face-to-face section.

Will this course be taught as a distance education course?: No
Is 100% of this course going to be taught in Texas?: No
Will classroom space be needed for this course?: No

This will be a required course or an elective course for the following programs:

Required (select program)
Elective (select program)

Has/will this course be(en) submitted for core curriculum consideration?: No

Has/will this course be(en) submitted for Writing or Communication consideration?: No
### Course Syllabus

<table>
<thead>
<tr>
<th>Syllabus:</th>
<th>Upload syllabus</th>
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<tbody>
<tr>
<td>Upload syllabus</td>
<td>ENGR 410_Global_Engineering_Summer_2018_JRP_syllabus.pdf</td>
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<table>
<thead>
<tr>
<th>Letters of support or other documentation</th>
<th>No</th>
</tr>
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<tbody>
<tr>
<td>Additional information</td>
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**Reviewer Comments**: Sandra Williams (sandra-williams) (03/09/18 3:33 pm): UCC approved March 9 via e-vote.

**Reported to state?**: No

Key: 5690

https://nextcatalog.tamu.edu/courseleaf/approve/
ENGR 410 - Global Engineering Design
Summer 2018

Instructors: Dr. F. Barry Lawrence, Co Instructor: Dr. Esther Rodriguez Silva

E-Mail & Contact Info: The best way to contact is through e-mail: barry.lawrence@tamu.edu, estherrsilva@tamu.edu
Office Phone: 979-845-4984
Office Room: Fermier Hall 205G

Course Enrollment: Limited to 35 students from any Engineering Department. Enrollment competitive through written essay & GPA

Textbook:
Optimizing Growth and Market Share, Gunarsekaran, Krishnadevarajan, and Lawrence

Course Webpage:
http://supplychain.tamu.edu

Course Description:
Intercultural models and their application to engineering design in diverse, multinational and multidisciplinary settings; engineering design project working in international teams of students, faculty and industry experts; applying engineering skills to the project; includes the study and application of intercultural models, global enterprise fundamentals and remote collaboration technologies; required for the International Engineering Certificate.

Prerequisite: Junior or senior classification or approval of instructor.

Course Purpose:
Students will learn a framework for the systematic analysis of globalization in technical endeavors. Decision making methods that allow the integration of quantitative and qualitative factors will be studied and applied in the context of global engineering projects. Applications will be based on the analysis of real cases, field trips with industry experts, and student projects. This course will have an international component taught abroad.

This course addresses the importance of international supply chain management. The material gives an overview of international logistics, global strategy for logistics and supply chain management, and structuring the global supply chain. The international trade environment, pricing, competitive relationships among international carriers and transport intermediaries, location decisions, international sourcing and distribution are the focus areas for the course. This focus includes classic topics such as the role of ports and airports in international product movements, the economics of international air and ocean carriers, and the freight forwarding industry. We will take special interest in the role of government intervention and regulations and security and risk management for international supply chains.
International relationships are complex. Many distributors have moved their operations off shore in response to requests from customers and suppliers. If the United States is to be competitive in its exports, distributors, who are the channel to market for most Small and Mid Sized Enterprises (SMEs), must continue to globalize. Most distributors are US based so this stands as the number one growth initiative for the industry. They need recruits with global understanding and a desire to work in international markets. This class will work with partner firms to practice basic global skills and solve global supply chain problems in a real world setting.

**Overall Course Learning Outcomes:**
Upon completion of this course, students will be able to:

1. Explain the impact of different international markets on operations.
2. Identifying how international cultures impact innovation and technology.
3. Critically analyze challenges faced by companies in understanding international customer needs.
4. Work in teams and demonstrate communication skills relating global solutions.
5. Formulate alternative solutions to developing capabilities in international markets.

**Course Activities**

1. Global Trip
2. Visits to industry sites
3. Invited industry guest speakers
4. In-class discussions
5. Project with industrial partner

**Grading**

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<tr>
<th>Component</th>
<th>Points</th>
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<tr>
<td>Project</td>
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<tr>
<td>e-Campus Assignments</td>
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<tr>
<td>Exam</td>
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<tr>
<td>Project Presentation</td>
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<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>&gt;89 — 100%</td>
</tr>
<tr>
<td>B</td>
<td>&gt;79 — 89.9%</td>
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<tr>
<td>C</td>
<td>&gt;69 — 79.9%</td>
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<tr>
<td>D</td>
<td>&gt;59 — 69.9%</td>
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<tr>
<td>F</td>
<td>≤ 59%</td>
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**Texas A&M University Policies**

**Students with Disabilities / ADA:**
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, currently located in the Disability Services building at the Student Services at White Creek complex on west
Attendance
Students are expected to attend class regularly in accordance with university policy. The policy is listed on the TAMU website at [http://student-rules.tamu.edu/rule07](http://student-rules.tamu.edu/rule07). You will be held responsible for any exam, quiz, assignment, material covered, amendments to the syllabus, or announcements made in class, whether you are present or not. Attendance will be recorded at various times throughout the semester.

Copyright/Plagiarism
It is the responsibility of students and instructors to help maintain scholastic integrity at the university by refusing to participate in or tolerate scholastic dishonesty. The material generated for this class is copyrighted. Because these materials are copyrighted, you do not have the right to copy the handouts, unless I expressly grant permission. Plagiarism involves passing off another’s ideas, words, writings, etc. as one’s own. If you have any questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, under the section “Scholastic Dishonesty.”

Aggie Code of Honor:
For many years Aggies have followed a Code of Honor, which is stated in this very simple verse:

*An Aggie does not lie, cheat, or steal or tolerate those who do.*

The Aggie Code of Honor is an effort to unify the aims of all Texas A&M men and women toward a high code of ethics and personal dignity. For most, living under this code will be no problem, as it asks nothing of a person that is beyond reason. It only calls for honesty and integrity, characteristics that Aggies have always exemplified. The Aggie Code of Honor functions as a symbol to all Aggies, promoting understanding and loyalty to truth and confidence in each other. For additional information visit [http://aggiehonor.tamu.edu](http://aggiehonor.tamu.edu).

Student Rules:
Student should consult Texas A&M University for students rule at [http://student-rules.tamu.edu/](http://student-rules.tamu.edu/).
<table>
<thead>
<tr>
<th>Week/Hrs</th>
<th>Location</th>
<th>Content</th>
<th>Material</th>
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<tbody>
<tr>
<td>Week 1</td>
<td>Texas A&amp;M University, College Station</td>
<td>Global Perspective on Sales &amp; Marketing, International Sales and Marketing Principles, Project Overview</td>
<td>Readings in e-Campus, Chapters from Book, Guest Lectures</td>
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<td>e-Campus Assignments</td>
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<td>Week 2</td>
<td>International Trip</td>
<td>International Tour of Companies: Global Transportation</td>
<td>Local Company Visits &amp; Guest Lectures</td>
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<td>Global Applications: When Culture Matters, When Operations Matters, When Context Matters, Project Design and Development</td>
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<td>Week 3</td>
<td>International Trip</td>
<td>International Tour of Companies: Manufacturing, Distribution, Logistics Companies, Global Facilities, Ports, and Customs</td>
<td>Local Company Visits &amp; Guest Lectures</td>
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<td>Week 4</td>
<td>Texas A&amp;M University, College Station</td>
<td>Project Development</td>
<td>Notes/Handouts In Class Lectures</td>
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<td>Week 5</td>
<td>Texas A&amp;M University, College Station</td>
<td>Final Project Preparation and Presentation</td>
<td>Final Presentations</td>
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<td>Exam</td>
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