ENES474: Global Perspectives of Engineering

Sample Course Syllabus

Course Description

Preparing to practice engineering in a global economy has become increasingly important for new engineers to advance in their careers. In addition to a strong engineering background, there is a greater need for engineers with cross-cultural experience and knowledge of engineering in specific regions. Understanding the impact of technology solutions in a foreign context is crucial for students who are planning a career in engineering or technology related fields. The course will facilitate the acquisition of these global capabilities in the area of technology and engineering.

Students pursuing a Minor in International Engineering can use ENES474 to fulfill a minor requirement. With departmental or college approval, engineering students may count the course as a technical elective for their major.

No prerequisites are required. However, completion of or concurrent enrollment in ENES472 is strongly recommended.

Instructor

Jane Fines
jfines@umd.edu (best method of contact)
1131 Glenn L. Martin Hall, Room 1131AA
(301) 405-3857
Office hours by appointment

Course Site

We are using ELMS/Canvas as the Learning Management System at www.elms.umd.edu. This is a blended class with online and required in-class components.

Course Structure

ENES474 is a blended learning course with in-class and online components. The class meets in person 50 minutes per week. It is anticipated that you will have at least 110 minutes of online work per week as well as homework that can take 3-6 hours per week for research and writing, assignments due, etc. Be aware that the class schedule is subject to change and that it is the responsibility of the student to stay informed about such revisions.

Required Text

No text is required. Readings will be posted on ELMS/Canvas. It is recommended that students either purchase a grammar handbook or make use of one of the online writing/grammar sites. Two online sites that are quite good include:

- The Purdue OWL - http://owl.english.purdue.edu/ (Links to an external site.)
Learning Objectives

In order to exhibit their expertise in their destination country through research and experience, upon completion of the course students will:

• increase their knowledge of the field of engineering in their destination country
• increase their knowledge of pertinent information on the destination country
• gain experience in writing research-based material at a professional level
• produce coherent and well-developed reports which embodies their expertise
• practice their presentation skills

The engineering programs at the University of Maryland are accredited by ABET, formerly known as the Accreditation Board for Engineering and Technology. The following are ABET student outcomes specifically addressed by this course.

(f) an understanding of professional and ethical responsibility
(g) an ability to communicate effectively
(h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
(i) a recognition of the need for, and an ability to engage in life-long learning
(j) a knowledge of contemporary issues

Course Expectations

ENES474 is a 3-credit, 400-level course and, as such, all students are expected to meet or exceed general standards of responsibility and self-discipline appropriate for such as class. This includes standards for attendance, completion of assignments, and overall participation in the learning environment as noted below.

At all times, students are expected to:

• Create a learning environment based on respect and scholarship
• Contribute productively to class discussions and peer reviews
• Be on time for class and all class-related activities and submit all assignments on time
• Abide by the University of Maryland Code of Academic Integrity and the Code of Student Conduct

Academic Integrity

Academic integrity is taken very seriously in this class and everyone shares responsibility for maintaining the integrity of the course. The student-administered Honor Code and Honor Pledge prohibits students from cheating on exams, plagiarizing papers, submitting the same paper for credit in two courses without authorization, buying papers, submitting fraudulent documents, and forging signatures. See the UMD Code of Academic Integrity http://www.president.umd.edu/policies/docs/III-100A.pdf for more details on the policy.
Assignments
Students are expected to be aware of the deadlines for assignments and submit assignments on time. Students/teams submitting assignments after the deadline will be penalized partial or full points for late assignments unless the student/team received prior approval and has appropriate documentation (e.g., medical documentation—see course Policies and Procedures).

Discussion and Respect
A quality learning experience in this course rests heavily upon the interaction and exchange of ideas among students and instructors. It is important that we establish an atmosphere of mutual respect. We will not always agree, and in fact we will learn better from different viewpoints. With this in mind, we must expect from each other that all discussion will be conducted with civility and integrity.

Attendance
Regular attendance and participation is an integral part of this class and is expected for all students at all classes. If you are going to be late or need to miss class due to an illness, religious holiday, or emergency, you must notify us in advance by phone or e-mail. Proper documentation is required for any absence. It is your responsibility to contact us or a classmate to find out what you missed in class. Students with an unexcused absence will receive zero points for that day. Two unexcused absences will severely impact your class engagement grade and if you have more than two unexcused absences, you will receive a zero for participation in this course. Attendance will be taken at the beginning of class. See Course Policies and Procedures for more information on the Attendance and Assessment/Examinations Policy for excused absences.

Major Graded Assignments
This course strives to develop student cross-cultural and technical competencies by building a solid knowledge foundation about business cultures of the world and engineering in a global context. In addition, the course provides students with practice in delivering oral presentations and preparing written reports.

<table>
<thead>
<tr>
<th>Grading Event</th>
<th>% of Final Grade</th>
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<tbody>
<tr>
<td>Cultural Comparison</td>
<td>10%</td>
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<tr>
<td>Engineering in the National Context</td>
<td>15%</td>
</tr>
<tr>
<td>Case Study/Comparative Analysis</td>
<td>25%</td>
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<tr>
<td>Presentations [Progress and Final] (2)</td>
<td>20%</td>
</tr>
<tr>
<td>Peer Reviews (3)</td>
<td>15%</td>
</tr>
<tr>
<td>In the News</td>
<td>10%</td>
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<tr>
<td>Participation</td>
<td>5%</td>
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</tbody>
</table>

Final Grades
Final grades are not negotiable: once determined, your overall grade in the class will not be changed unless a mistake was made in the grading of the final exam. Requests for bonus points, extra credit assignments, etc. are unfair to your classmates and will not be met. Questions concerning the grading of particular assignments must be presented prior to the last day of class; grades (other than the final exam) will not be reviewed after the last day of class.
Final Grade Scale

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
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<tbody>
<tr>
<td>98-100</td>
<td>A+</td>
</tr>
<tr>
<td>94-97.999</td>
<td>A</td>
</tr>
<tr>
<td>90-93.999</td>
<td>A-</td>
</tr>
<tr>
<td>87-89.999</td>
<td>B+</td>
</tr>
<tr>
<td>84-86.999</td>
<td>B</td>
</tr>
<tr>
<td>80-83.999</td>
<td>B-</td>
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<tr>
<td>77-79.999</td>
<td>C+</td>
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<tr>
<td>74-76.999</td>
<td>C</td>
</tr>
<tr>
<td>70-73.999</td>
<td>C-</td>
</tr>
<tr>
<td>60-69.999</td>
<td>D</td>
</tr>
<tr>
<td>0-59.999</td>
<td>F</td>
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Course Policies and Procedures

Arrangements for Students with Disabilities
Students who have a documented disability and requires academic accommodation for this course should notify the instructor immediately. To receive accommodations, students must first have their disabilities documented by the UMD Disability Support Services office. Additional information and support is available through Disability Support Services at www.counseling.umd.edu/DDS or 301-314-7682.

Attendance and Assessment/Examinations Policy
The general attendance policy on excused absences is consistent with the University’s policy, which allows students to be excused for the following causes:

- Illness of the student or illness of a dependent as defined by the Board of Regents policy on family medical leave
- Religious observance (where the nature of the observance prevent the student from being present during the class period)
- Participation in University activities at the request of University authorities
- Compelling circumstances beyond the student’s control

Students claiming an excused absence must apply in writing, and furnish documentary evidence for their assertion that the absence resulted from one of these causes. Attending your sister’s recital, student organization officer elections, Greek events, and other activities are not excused absences and may adversely impact your Class Engagement grade.

Medically Necessitated Absence
In the case of illness and in accordance with the University of Maryland Policy for a Student’s Medically Necessitated Absence from Class (http://www.president.umd.edu/policies/v100g.html), students may provide a self-signed note when missing a single class period, with the understanding that providing false information is prohibited under the Code of Student Conduct. Self-signed notes are not accepted during “Major Scheduled Grading Events.” Non-consecutive medically necessitated absences from more
than a single class period will require a self-signed note from the student explaining the absence and medical documentation may be required as well.

Students who require a prolonged absence from classes and/or absence from a major scheduled grading event should notify the instructor immediately so that alternative arrangements can be made. Documentation from the Health Center or from an outside health care provider will be required to verify dates of treatment and indicate the time frame that the student was unable to meet his/her academic responsibilities. No diagnostic information is required.

Whenever possible, the instructor will make a reasonable effort to reschedule in-class presentations for students with an authorized excused absence. However, due to the interactive nature of the course and team aspect of most presentations, rescheduling is not always feasible.

**Inclement Weather**
In the event of inclement weather, please call 301-405-SNOW (7669) to find out if the University is officially closed. Classes will be in session unless the University has officially cancelled classes. However, assignments are still due. In case of a lengthy closure, the course will be held online using Canvas/ELMS. Some adjustments to assignments and due dates may need to be made.

**Religious Observances**
Care will be taken to avoid scheduling deadlines or events on major holidays. If a student needs to make additional arrangements because a class or an event coincides with participation in religious observances, notify the instructor in writing immediately, and certainly before the end of the schedule adjustment period.

**Classroom Climate**
The University of Maryland values the diversity of its student body and is committed to providing a classroom atmosphere that encourages the equitable participation of all students regardless of age, disability, ethnicity, gender, national origin, race, religion, or sexual orientation. Potential devaluation of students in the classroom that can occur by reference to demeaning stereotypes of any group and/or overlooking the contributions of a particular group to the topic under discussion is inappropriate. (See Statement on Classroom Climate, http://www.umd.edu/catalog/index.cfm/show/content.section/c/27/ss/1584/s/1541)

**Electronics**
Out of courtesy to classmates and instructors, please turn off or silence cell phones during class. Students are encouraged to have Wi-Fi enabled devices available during class for note-taking and conducting in-class research. Surfing the internet, checking email, and texting during class is rude and distracting, please don’t do it.

**Copyright Notice**
Course materials that exist in a tangible medium, such as written or recorded lectures, PowerPoint presentations, handouts and tests, are copyright protected. Case studies in electronic format are also copyrighted. Students may not copy and distribute such materials except for personal use and with the instructor’s permission.

**Student Assistance**
The University of Maryland offers a variety of services for students in need of either educational or psychological assistance. If you are experiencing difficulties in keeping up with the academic demands of this course, please take advantage of these services.
• **Learning Assistance Service** (http://www.counseling.umd.edu/LAS/) 2202 Shoemaker Building, 301-314-7693, for free assistance with time management, reading, math learning skills, note-taking and exam preparation skills.

• For assistance at all stages of the composing process, visit the **Writing Center** (http://www.english.umd.edu/academics/writingcenter) McKeldin Library, room 2101, 301-405-3785.

• If you are experiencing personal stress that is interfering with your ability to succeed, please consider contacting the **Counseling Center** (http://www.counseling.umd.edu/) at Shoemaker Hall (301-314-7651) or the **Mental Health Service** (301-314-8106) at the **University Health Center** (http://www.health.umd.edu/).

• **National Suicide Prevention Lifeline**, 1-800-273-TALK (8255)