EGR 396

Spring Engineering Seminar

Elizabethtown College Esbenshade Rm. 187 Monday 4:00 – 5:00 pm

Instructor: Kurt DeGoede, Associate Professor, Physics and Engineering

161 B Esbenshade Hall (717) 361-1380 anytime

degoedek@etown.edu anytime

Home: (717) 492-0558 before 10:00 PM (no calls between 1:00 PM Saturday and

4:00 PM on Sunday please)

Office Hours: TuW 12:30-1:50, Th 9:30-10:50;

Or by appointment. Please feel free to stop by my office anytime, if my door is

closed please leave a note.

Course Description:

(1 credit) Seminar series with weekly presentations of topics of current interest in engineering. Speakers include practicing engineers and researchers from industry or other academic institutions, Elizabethtown faculty, and senior-level Elizabethtown students. Spring semester.

Course Objectives:

- 1. Expose students to current engineering-related perspectives, challenges, and opportunities.
- 2. Help prepare students for a life-long career in engineering or a related field.

ABET

f: An understanding of professional and ethical responsibility

Learning

g: Communicate effectively orally and in writing

Outcomes:

- h: A broad education necessary to understand the impact of engineering solutions in a global and societal context
- i: Recognition of the need for, and an ability to engage in life-long learning
- j: Knowledge of contemporary issues

Grading:

Grades will be determined based on attendance, participation, and written work.

Attendance	30%
Participation	30%
Journal/Discussion	40%

Honor Policy:

This class entails guest speakers and learning will be best achieved through sharing of ideas. I encourage collaboration and working together at all times. That being said, written work must be properly referenced in all cases. For written assignments, even informal writings, cite any material taken from another book, person, or web site. This will aid you when referring back to your work and prevent plagiarism. For work that is handed-in for grading, written work must be each student's own and should never be copied. If you have any question about what is permissible and not permissible please ask me.

Attendance and Participation:

This course will involve mainly guest speakers and a few external events. Attendance and participation are essential components to maximizing the benefits of this course. Please plan to attend all events and, as a courtesy, inform the instructor in advance of any conflicts. Attendance grading is as follows: non-approved absences -10% of your attendance grade. Participation is essential to maximizing both your time in the seminars (when you are thinking of questions to ask, you are more likely to carefully follow the speaker) and improving the speaker's satisfaction. (Who wants to give a talk where the students don't seem to be interested at the end?) Participation grading is as follows: +25% for each good question (max: 100% of participation grade).

Enjoy the talks, engage in the talks, and don't focus on grading metrics! A grading metric is set only so that the instructor has a clear unbiased means of final assessment.

Reflections:

{Presentation Reflections} Write 200-300 words for each speaker/discussion/event, focusing on what you got out of the activity rather than on a summary. If you aren't sure how to write a succinct reflection, think of the following guide: What – start by summarizing the speaker's name, title, and the topic; So What – next tell me what it was about the talk that resonated with you personally, what it reminded you of, what you found interesting, etc; Now What – finish by stating what actions this speaker or activity motivated you to take, and be specific, ie take a certain course, look up information online about a related topic, discuss a topic with my friends, etc. Reflections are due as indicated in Canvas to make sure you are staying up to date, and to provide a richer class discussion on designated sessions.

{Big Picture Reflection} Write short abstracts (100-150 words) of core requirements and other relevant experiences. In these abstracts, link the experience to your present and future work as an engineer. As a few possible themes to get you started, consider: Creative Expression courses that can improve your (1) understanding of structure - sculpture, (2) communication skills - acting, or (3) sketching and visualization skills - drawing; develop a better understanding of Asian (or other) cultures from your NWCH course; develop a strong foundation of professional responsibility through your applied ethics course; use your WCH course to help you better understand the culture that shapes the market for your products. Social Science core courses feature options that will (1) help you understand how people (customers and colleagues) think and (2) understand current global issues that frame global problems that will require significant contributions from engineers.

{Ethics Reflection} 500 words. Discuss how you understand your personal ethics and professional conduct. Discuss in the context of an appropriate professional society code of ethics (NSPE, IEEE,

ASME, ...), and the Elizabethtown Pledge of Integrity and your experience as a student and any professional or work experience.

All Reflections evaluated on content:

What? – (1) Summarize the speaker's name, title, and the topic

So What? – (3) What about the talk that resonated with you personally, what it reminded you of, what you found interesting/why, etc.

Now What? - (2) What actions did this speaker or activity motivate you to take, and be specific, i.e. take a certain course, look up information online about a related topic, discuss a topic with my friends, etc. Reflections are due as indicated in Canvas to make sure you are staying up to date, and to provide a richer class discussion on designated sessions.

And writing quality:

Concise and Engaging (2)

Good writing: structure/grammar/spelling (2)

Final grades will be rounded to 3 significant digits with the following scale:

A	93.0	_	100.	Outstanding
A –	90.0	_	92.9	
B +	87.0	_	89.9	
В	83.0	_	86.9	Good
В –	80.0	_	82.9	
C +	77.0	_	79.9	
С	73.0	_	76.9	Acceptable
C –	70.0	_	72.9	
D	60.0	_	69.9	Poor
F	0	_	59.9	Failing

Tentative Schedule (speaker invitations are pending):

Date		Topic
Jan	23	Intro and TED Video(s)
	30	Precision Medical Products
Feb	6	EA Water Authority (Off-Campus 3:45-5:15)
	13	Bayer Pharmaceuticals
	21	Job Fair (TUESDAY)
	27	Aerie Engineering
Mar	13	Ethics Discussion
	20	Biomedical Engineering
	27	Big Picture Discussion
Apr	6	Ware Peace Lecture 7:30 PM (THURSDAY)
	10	M&M Bridges
	17	TMI (Off-Campus Details pending)
	25	Scholarship Day (TUESDAY)
May	1	No Class

Ethics: In this course, learning will be best achieved through the sharing of ideas with the speakers and your classmates. That being said, written work must be properly referenced in all cases. For written work, even informal reflections, cite any material taken from another book, person, or web site. Written work must be each student's own and should never be copied, nor used for another class without permission. If you have any question about what is permissible and not permissible please ask me.

Disabilities Statement: Elizabethtown College welcomes otherwise qualified students with disabilities to participate in all of its courses, programs, services, and activities. If you have a documented disability and would like to request accommodations in order to access course material, activities, or requirements, please contact the Director of Disability Services, Lynne Davies, by phone (361-1227) or e-mail daviesl@etown.edu. If your documentation meets the college's documentation guidelines, you will be given a letter from Disability Services for each of your professors. Students experiencing certain documented temporary conditions, such as post-concussive symptoms, may also qualify for temporary academic accommodations and adjustments. As early as possible in the semester, set up an appointment to meet with me, the instructor, to discuss the academic adjustments specified in your accommodations letter as they pertain to my class.

Religious Observance: The College is willing to accommodate individual religious beliefs and practices. It is your responsibility to meet with the class instructor in advance to request accommodation related to your religious observances that may conflict with this class, and to make appropriate plans to make up any missed work.

School Closure: In the event that the school is closed during regularly scheduled class time, a virtual learning experience, independent reading, or extra session will be provided to make up for any missed content.

Fine Print: The above information represents the intent of the course and is subject to change at the discretion of the instructor.