

PURDUE

UNIVERSITY

**SCHOOL OF ELECTRICAL
AND COMPUTER ENGINEERING
UNDERGRADUATE COUNSELING OFFICE**

Engineering Faculty Document 87-19
January 30, 2019
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To: The Engineering Faculty
From: School of Electrical and Computer Engineering
Re: ECE 49401

The School of Electrical and Computer Engineering has approved the following new course. This action is now submitted to the Engineering Faculty with a recommendation for approval.

ECE 49401 Professional Communication Capstone

Lecture: 1 credit
Semesters offered: Fall, Spring
Non-repeatable

Pre-requisites: ECE 39401

Course Description

This course provides ECE students an opportunity to refine their professional communication skills before launching into the workplace or graduate school. Topics include: ethics in ECE, workplace communication (written and verbal), and plans for professional growth.

Reason

This courses is the completion of the ECE seminar sequence where they will refine their professional and ethical development in and out of the classroom.

History of Previous Offering

This course was previously offered as ECE 40000 but is now redesigned into a capstone course and will serve as the final in a three-course sequence: ECE 29401 – ECE 39401 – ECE 49401. This sequence of courses is designed to introduce, develop and master ethical and professional development of our ECE students.



Michael R. Melloch, Associate Department Head of ECE

ECE 400

2 sections per semester

Thursday 11, 12 (or 12, 1)

100 students per section

WALC 1132 (seats 108)

Date	Speaker	Due	Other
8.24	Course intro		
8.31	Teamwork/Diversity/Presentations		Choose teams in class
9.7	In-class work on presentations	Topics	Speaker 1 -- Ethics -at ni2ht
9.14	TBA		
9.21	Groups 1-3		Speaker 2 -- at night
9.28	Groups 4-6		
10.5	TBA		
10.12	Groups 7-9		
10.19	Proposal Discussion		Speaker 3 -at night
10.26	Groups 10-12	Must have IDI finished	
11.2	IDI Discussion	Bring IDI results	
11.9	Groups 13-15	Proposals Due	
11.16	Groups 16-18	Engineering Practice Assignment Due	
11.23	No class -Thanksgiving		
11.30	Course debrief		
12.7	Ragu		Last class

ECE 400 Assignments

Learning Objectives:

1. An ability to communicate ideas in a written form
2. An awareness of skills necessary to achieve success in the workplace
3. The ability to research and evaluate current events in an engineering context
4. An understanding of the role of ethical engineering in the work environment

- Ethics presentation - 150
- IDI - 100
- Proposal - 100
- Engineering Practice -- 50
- Attendance -- 100

- *Assignment One:* Group Presentation (LOs: 1, 2, 3, 4): With your teams, you will create a 15 minute presentation for the class on an ethical issue related to engineering. You will briefly explain the issue (2 minutes), present the different sides of the issue (8 minutes each side), and answer 5 minutes of questions from the audience. Your presentation must include a visual aid (power point, handout, model, demonstration). You will turn in an outline of the transcript for your presentation, a copy or picture of/link to your visual aid, hard copies of at least two sources that discuss your chosen topic, a team evaluation, and a self-evaluation.
 - 6 students; 18 groups
 - 15 minutes
 - 3 groups for 6 days

- *Assignment Two:* Personal Growth Plans (LOs: 1, 2, 3, 4): Based on the results of your IDI and your understanding of current engineering/multicultural issues, you will create a Personal Growth Plan, using the Personal Growth Plan template.

- *Assignment Three:* Proposal (LOs: 1, 2, 3): You will select an issue you see in ECE and propose a reasonable solution to the problem. These documents will be seen by Dr. Balakrishnan, and should represent your very best work.

Help from PRF

- Six nights of Speakers (12 special Wfi)
 - Ethics
 - Law
 - One other

 - Young Alumni -3
 - Young Industry -3
 - Challenges and Decisions -3