

To: The Engineering Faculty
From: The Department of Engineering Education
Re: New Graduate Level Course – ENE 601, Introduction to Engineering Education

The faculty of the Department of Engineering Education has approved the following new graduate ENE course. This action is now submitted to the Engineering Faculty with a recommendation for approval.

ENE 601 Introduction to Engineering Education
Sem. 1. Cr. 1
Prerequisite: Admission by consent of instructor

This course provides beginning engineering education graduate students opportunities to define themselves within the engineering education department and within the field of engineering education. Students, faculty, and outside speakers present research topics, academic opportunities, and other information that will enhance students' graduate experiences.

Reason: This is a required course for the graduate programs in the Department of Engineering Education (ENE). The intent of the course is to introduce beginning ENE students to the field of engineering education through interactions with members of the engineering education community at local and national levels and to help students identify resources that will help them transition into the professional engineering education community.

This course was offered in Fall 2005 as ENE 695A – Seminar in Engineering Education; eleven ENE students were enrolled.

Kamyar Haghighi, Head
Engineering Education

ENGR 601 Introduction to Engineering Education Syllabus

COURSE DESCRIPTION

This course provides engineering education graduate students an opportunity to define their roles within the department and within the field of engineering education. Students, faculty, and outside speakers will present research topics, academic opportunities, and other information that will enhance students' graduate experiences.

COURSE LEARNING OBJECTIVES

- Define your role in the engineering education community
- Identify and interact with members of the engineering education community at local and national levels
- Identify and utilize resources that will help you successfully complete your doctoral program and transition into the professional engineering education community

GRADING POLICY

- | | |
|-------------------------------------|-----|
| • Peer Interview | 20% |
| • Professional (Internal) Interview | 20% |
| • Professional (External) Interview | 20% |
| • Reflection Paper | 30% |
| • Participation/Attendance | 10% |

ASSIGNMENTS

Peer Interview Synopsis: To foster a sense of community and to learn more about the students in your cohort, you will ask a fellow engineering education graduate student four interview questions and will submit a two-page, double-spaced synopsis of this interview. Open-ended questions should help the interviewee reflect upon his/her educational objectives. To avoid duplicate interviews, every student in the class will be interviewed once. Some sample questions include, but are not limited to, the following:

- Professionally, where do you see yourself in five years? In twenty years?
- Why did you choose to pursue an advanced degree in engineering education versus some other discipline?
- What are the biggest challenges facing engineering education today? What are some possible solutions to these challenges?

Professional (Internal) Interview Synopsis: You will interview a Purdue faculty member or researcher who is affiliated with the Engineering Education department or who has designed and/or conducted engineering education research projects and will write a two-page, double-spaced synopsis of this interview. Since the person is housed on campus, you must conduct your interview face-to-face. The four questions that you ask should be of interest to you and should help to answer any questions that you might have about the structure of the ENE department, faculty's expectations of you as a student, professional ENE opportunities, ongoing or future research engineering education projects, etc. The interview should last approximately ten to twenty minutes depending upon the length of the questions that you ask. To avoid duplicate interviews, every student is *required* to interview a different faculty member and/or researcher. Please contact me once you have set up your interview, and I will let others know that your interviewee is no longer available.

Professional (External) Interview: You will interview a non-Purdue faculty member or researcher within the engineering education community and will write a two-page, double-spaced synopsis of this interview. The interview may be conducted in-person, via e-mail, or via telephone. You might find this person via web searches for NSF-funded engineering education research centers and/or projects, at national engineering education conferences, etc. Please make sure that you thoroughly explain your purpose for the interview. The four questions that you ask should be of interest to you and should address national engineering education issues such as engineering education research challenges at different types of universities, companies, etc., the national job market for engineering education graduates, the future of engineering education, etc. A face-to-face interview should last approximately ten to twenty minutes depending upon the length of the questions that you ask. To avoid duplicate interviews, every student is *required* to interview a different person. Please contact me once you have set up your interview, and I will let others know that your interviewee is no longer available.

Reflection Paper: The purpose of this paper is for you to reflect upon everything that you have learned this semester. The paper should identify any resources that you would like to tap into during your tenure at Purdue, should list your engineering education timeline (i.e., the activities that you plan to become involved in within the department or the engineering education community, research projects that you would like to start, etc.), and the professional goals that you hope to achieve as an engineering educator. You are welcome to include any other thoughts that you have about engineering education as a result of the in-class presentations or presentations from other engineering education-related classes. There is no page limit for this assignment.

ATTENDANCE

You are expected to attend all scheduled seminars unless you have contacted the instructor prior to the seminar.

Schedule of Topics and Assignments (Sample Fall 2005)

Week	Dates	Topic	Assignments Due
1	Aug. 23	Departmental Introductions & Announcements	
2	Aug. 30	“Curriculum Vita Workshop” Presented by Ms. Susan Hychka from Purdue’s Center for Career Opportunities	
3	Sept. 6	Research Presentation Dr. Sean Brophy, Asst. Professor of Engineering Education	
4	Sept. 13	Research Presentation Dr. PK Imbrie, Asst. Professor of Engineering Education	Peer Interview Synopsis
5	Sept. 20	Graduate Student Expectations Discussion, Dr. Heidi Diefus-Dux	
6	Sept. 27	ENE Student Recruitment/ Focus Group Discussion, Korina Wilbert	
7	Oct. 4	Research Presentation Dr. Cordelia Brown, Asst. Professor of Engineering Education	
8	Oct. 11	October Break	
9	Oct. 18	No Class	
10	Oct. 25	Engineering Education Resources	Professional (Internal) Interview Synopsis
11	Nov. 1	Student Presentation- Tamara Moore “Fishbowl” Continuation	
12	Nov. 8	“Finding Research Funding” Presented by H. Christine King, Director of Research Development Services	
13	Nov. 15	Provost Sally Mason/ Prof. David Radcliffe Presentations	Professional (External) Interview Synopsis
14	Nov. 22	Student Presentations of External Professional Interviews	
15	Nov. 29	TBA	
16	Dec. 6	Research Presentation Dr. Robin Adams, Asst. Professor of Engineering Education	Reflection Paper