

ELECTRICAL, COMPUTER, AND SYSTEMS ENGINEERING DEPARTMENT

ABET COURSE SYLLABUS

ECSE 2900: ECSE Honors Seminar

- Course Catalog Description:** Introduction to research as a professional activity in electrical, computer, and systems engineering for participants in the ECSE Honors Program. Admission to the program is by application or invitation only, made during the fall term of the sophomore year. This seminar can be taken more than once.
- Pre-Requisite Courses:** None
- Co-Requisite Courses:** None
- Prerequisites by Topic:**
1. Sophomore standing with GPA > 3.7 or
 2. Recommendation by ECSE faculty
- Textbook:** None
(and/or other required material)
- References:** None
- Course Coordinator:** Kenneth A. Connor and Kenneth S. Vastola
- Overall Educational Objective:** Help top ECSE undergraduates more fully appreciate the wide variety of professional options open to high achieving students.
- Course Learning Outcomes:**
1. Develop interest in graduate studies
 2. Increase understanding of application to graduate school and graduate school culture
 3. Increase understanding of the wide diversity of professional options open to top ECSE students
- How Course Outcomes are Assessed:** Attendance and participation in group discussions
Report on ECSE Sub-disciplinary Area

Relation to EE/CSE/EPE Outcomes

N = none
M = moderate
H = high

Outcome	Level	Demonstrate Proficiency
	N, M, H	e.g. Exams, projects, HW
Mathematics, science and engineering	N	
Basic disciplines in Electrical Engineering	N	
Depth in Electrical Engineering	N	
Basic disciplines in Computer & Sys. Eng.	N	
Depth in Computer and Systems Eng.	N	
Basic disciplines in Electric Power Eng.	N	
Conduct experiments and interpret data	N	
Identify, formulate and solve problems	N	
Design a system, component or process	N	
Communicate in written and oral form	M	Project presentation
Function as part of a multi-disciplinary team	N	
Preparation for life-long learning	H	Discussions & Project Presentation
Ethical issues; safety, health, public welfare	M	Discussions
Humanities and social sciences	N	
Laboratory equipment and software tools	N	
Variety of instruction formats	N	

Topics Covered:
(number of hours or classes for each)

1. Professional Options for Top Students
2. Graduate School – Applying, Differences from Undergrad Education
3. Visiting Research Laboratory Facilities
4. Meetings with Guests from the ECSE Community – faculty, alums, friends
5. Sub-disciplinary Area Discussions and Reports
6. Meeting with Graduating Seniors

Computer Usage: Area report requires development of a series of webpages addressing each issue

Laboratory Experiences: None

Design Experiences: None

Independent Learning Experiences:

1. Research and present report on sub-discipline within ECSE at RPI
2. Prepare web page to support report

Class/Lab Schedule: Once per week for two hours in spring term

Contribution to the Professional Component:

(a) College-level mathematics and basic sciences:	0 credit hours
(b) Engineering Topics (Science and/or Design):	0 credit hours
(c) General Education:	1 credit hours

Prepared by:	Kenneth A. Connor
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