Academic Learning Compact

Electrical Engineering

Electrical engineering emphasizes development of the transmission and utilization of electric energy and intelligence. Electrical engineers design products and systems that meet the needs of today and tomorrow's electrical and electronic systems. Students will be able to design communication systems; design the electronic components that run computers, motor vehicles, TVs, stereo systems and robots for automated factories; design aircraft and spacecraft control systems; design utility and industrial power systems; and design biological and biomedical systems.

This program is accredited by the Engineering Accreditation Commission of ABET.

Before Graduating Students Must

- Pass an assessment of performance on a major design experience. Assessment will be provided by two or more faculty and/or industry practitioners.
- Pass assessment in two courses of individual assignments targeted to each learning outcome. Assessment will be provided by the instructor of the course according to department standards.
- Complete an exit interview in your final semester.
- Complete requirements for the baccalaureate degree, as determined by faculty.

Skills Students will Acquire in the Major (SLOs)

1. Identify, describe, and interpret probability and statistics, including applications.
2. Develop and conduct appropriate experimentation and testing procedures, and to analyze and draw conclusions from data by using mathematics and engineering sciences.
3. Identify and solve advanced mathematics including linear algebra, complex variables and discrete mathematics to engineering practice.
4. Apply knowledge of mathematics, science and engineering.
5. Design and conduct experiments, as well as analyzing and interpreting the data.
6. Design a system, component or process to meet desired needs.
7. Function on multidisciplinary teams.
8. Identify, formulate and solve engineering problems.
9. Display the personal and professional conduct and qualities expected for a practicing engineer.
10. Convey information effectively for a range of audiences using a variety of methods and media.
11. Achieve the broad education necessary to understand the impact of engineering solutions in global and societal contexts.
12. Assess the need for and an ability to engage in lifelong learning.
13. Achieve knowledge of contemporary issues that impact the field of electrical engineering.
14. Use the techniques, skills and modern engineering tools necessary for engineering practice.

Curriculum Map

I = Introduced; R = Reinforced; A = Assessed

Courses	Content				Critical Thinking				Communication					
	SLO 1	SLO 2	SLO 3	SLO 4	SLO 5	SLO 6	SLO 7	SLO 8	SLO 9	SLO 10	SLO 11	SLO 12	SLO 13	SLO 14
EGN 1935							I	I	I					
EEL 3000									I, A	I	I	I, A	I	
EEL 3003								I						
EEL 3008														I
EEL 3111C		A		A				R						A
EEL 3112		I	I	I	I			R						I
EEL 3135		R	A	A				R						A
EEL 3211C		R		I				R						I
EEE 3308C	I	R		R		I		R		R		R		I
EEE 3396C	I	R		R				R						
EEL 3402		R		R				R						
EEL 3472C		R		R				R						
EEL 3701C		R		R				R		R				
EEL 3744C		R		R		R		R		R				
EEL 3834		R		R				R						
EEL 3923C		R	R	R	R	R		R	R	R				
EEL 4251		R		R				R						
EEE 4260C		R		R				R						
EEE 4306		R		R	R	R		R						
EEE 4310		R		R		R		R						
EEE 4329		R		R		R		R				R		
EEE 4331		R		R				R				R		
EEE 4373		R		R				R						
EEE 4420		R		R				R				R		

EEL 4440		R		R				R						
EEL 4446		R		R				R						
EEL 4412		R		R				R						
EEL 4458		R		R				R						
EEL 4461		R		R				R						
EEL 4473		R	R	R				R						
EEL 4495		R		R				R						
EEE 4511C		R		R				R						
EEL 4514C		R	R	R	R	R		R		R	R	R	R	R
EEL 4516	R	R	R	R	R	R		R			R	R	R	R
EEL 4523		R		R				R						
EEL 4540		R		R				R						
EEL 4598		R		R				R						
EEL 4599		R		R				R						
EEL 4657C		R	R	R	R	R		R						
EEL 4665C		R		R		R		R						
EEL 4712C		R		R				R						
EEL 4713C		R		R		R		R						
EEL 4720		R		R				R						
EEL 4736		R		R				R						
EEL 4750		R		R				R						
EEE 4924C		A	R	R	A	A	A	A	A	A	A	A	A	R

Assessment Types

Classroom-format classes: focused question on assignments or exams

Laboratory-format classes: evaluation of a lab report or quiz

Assessments also include:

Design and programming projects

Data analysis

Team work

Reports

Presentations

Assessment Cycle

Analysis and Interpretation:	End of each semester
Improvement Actions:	Completed every semester
Dissemination:	Completed every semester

Year SLOs	15-16	16-17	17-18	18-19	19-20	20-21
#1	X	X	X	X	X	X
#2	X	X	X	X	X	X
#3	X	X	X	X	X	X
#4	X	X	X	X	X	X

Assessment Oversight

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Dr. Henry Zmuda	Associate Professor and Undergraduate Coordinator, Electrical & Computer Engineering	zmuda@ece.ufl.edu	392-0990
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