

Electrical Engineering Four Year Academic Plan

Name: _____

UID: _____

Year 1	Fall		
Gateway requirements include: ENGL 101, CHEM 135, MATH 141, PHYS 161 and an approved Distributive Studies course. (Directly admitted freshman must successfully complete these courses and ENES 100 by 45 UM credits.)	Course	Credit	Grade
	CHEM 135	3	
	ENES 100 (SP)	3	
	MATH 140 (AR)	4	
	ENEE 140	2	
	ENGL 101 (AW)	3	
	Total	15	

Spring		
Course	Credit	Grade
ENEE 150	3	
ENEE 244	4	
MATH 141	3	
PHYS 161 (NS)	3	
ORAL COMM (OC)	3	
Total	16	

Year 2	Fall		
	Course	Credit	Grade
	ENEE 200	3	
	ENEE 245	3	
	MATH 241	4	
	PHYS 260 and PHYS 261 (NL)	3 & 1	
	Scholarship in Practice (SP)*	3	
	Total	17	

Spring		
Course	Credit	Grade
ENEE 205	4	
ENEE 222	4	
MATH 246	3	
PHYS 270 and PHYS 271	3 & 1	
Humanities (HU)*	3	
Total	18	

Year 3	Fall		
Second benchmark requirements must be completed one year after students are reviewed for the gateway requirements and include: All 100 and 200 level MATH and PHYS courses, ENES 100, ENEE 150, 200, 205, 222, 244.	Course	Credit	Grade
	ENEE 303	3	
	ENEE 322	3	
	ENEE 350	3	
	ENEE 380	3	
	MATH 4XX Elective	3	
	Total	15	

Spring		
Course	Credit	Grade
ENEE 307	2	
ENEE 313	3	
ENEE 324	3	
ENEE 381	3	
Hist & Social Sciences (HS)*	3	
Total	14	

Year 4	Fall		
Third benchmark requirements must be completed one year after students are reviewed for the second benchmark and include: ENEE 245, 303, 307, 322, 380, one additional 300 level course and at least two courses from the 300 level, ENEE technical electives or general technical electives.	Course	Credit	Grade
	ENEE Upper Tech Elective	3	
	ENEE Upper Tech Elective	4	
	Upper-level Gen. Tech Elec	3	
	ENGL 393 (PW)	3	
	Humanities (HU)*	3	
	Total	16	

Spring		
Course	Credit	Grade
ENEE Upper Tech Elective	3	
ENEE Upper Tech Elective	3	
Upper-level Gen. Tech Elec	3	
Upper-level Gen. Tech Elec	3	
Hist & Social Sciences (HS)*	3	
Total	15	

*All students must complete two Distributive Studies courses that are approved for I-series courses. The Understanding Plural Societies and Cultural Competence courses may also fulfill Distributive Studies categories.

ELECTRICAL ENGINEERING

NAME: _____

UID: _____

General Education Requirements Fundamental Studies			
Requirements	Course	Credits	Grade
Academic Writing (AW)	ENGL 101	3	
Professional Writing (PW)	ENGL 393	3	
Oral Communication (OC)		3	
Math (MA)	-----	0	
Analytic Reasoning (AR)	MATH 140	0	

Distributive Studies			
Requirements	Course	Credits	Grade
Natural Science Lab (NL)	PHYS 260&261	0	
Natural Sciences (NS)	PHYS 161	0	
History/Social Sciences (HS)		3	
History/Social Sciences (HS)		3	
Humanities (HU)		3	
Humanities (HU)		3	
Scholarship in Practice (SP)	ENES100	0	
Scholarship in Practice (SP) non major		3	

I-Series Normally double counted with Distributive Studies			
Requirements	Course	Credits	Grade
I-Series (IS)			
I-Series (IS)			

Diversity (overlap permitted with Distributive Studies and/or I-series)			
Requirements	Course	Credits	Grade
Understanding Plural Societies (UP)			
Understanding Plural Societies (UP) or Cultural Competency (CC)			

Basic Sciences			
Requirements- <i>The cumulative average of these courses must be a 2.0</i>		Credits	Grade
CHEM 135 - Chem for Eng		3	
PHYS 161 - General Physics I		3	
PHYS 260 and PHYS 261 - Gen Physics II & Lab		3 & 1	
PHYS 270 and PHYS 271 - Gen Physics III & Lab		3 & 1	
MATH 140- Calculus I		4	
MATH 141 - Calculus II		4	
MATH 241 - Calculus III		4	
MATH 246 - Differential Equations		3	

Engineering Sciences			
Requirements- <i>The cumulative average of these courses must be a 2.0</i>		Credits	Grade
ENES 100 - Intro to Eng Design		3	

Requirements for Graduation:	
<input type="checkbox"/> At least 30 credits must be earned at UMD	
<input type="checkbox"/> 15 of the final 30 credits must be earned at the 300-400 level	
<input type="checkbox"/> 12 upper level major credits must be earned at UMD	

Students must earn a minimum of 120 credits to complete a degree.

Major Requirements		
<i>Requirements-The cumulative average of these courses must be a 2.0</i>	Credits	Grade
ENEE 150 – Intermed Prog Concepts*	3	
<small>*Students must successfully complete ENEE140 OR exemption prior to enrolling.</small>		
ENEE 200 – Social/Ethical Issues of Eng. Tech.	3	
ENEE 205 – Electric Circuits	4	
ENEE 222 – Elements of Discrete Signal	4	
ENEE 244 – Digital Logic Design	3	
ENEE 245 – Digital Circuits and Systems	2	
ENEE 303 – Analog & Digital Electronics	3	
ENEE 307 – Electronic Circuit Design Lab	2	
ENEE 313 – Intro Device Physics	3	
ENEE 322 – Signal & System Theory	3	
ENEE 324 – Eng Probability	3	
ENEE 350 – Computer Organization	3	
ENEE 380 – Electromagnetic Theory	3	
ENEE 381 – Electromagnetic Wave Propagation	3	
Required ENEE Technical Electives (13 credits)		
Category A: Adv. Theory & Applications:	3	
Category B: Advanced Laboratory:	2-3	
Category C: Capstone Design:	3	
Category A-C:	3	
Category A-C:	1-3	
ENGL 393 - Technical Writing	3	

A minimum of 13 credits of 300/400-level ENEE electives must be completed with at least two courses selected in a single area of specialization. For a complete list of approved ENEE electives as well as the areas of specialization and minimum credit requirements for each category please see: www.enee.umd.edu/Academic/Under/advising/CP_tech_electives.html

General Tech Electives** The cumulative average of these courses must be a 2.0		
MATH 4xx - Technical Math Elective**	3	
General Technical Electives**	9	

**Complete list of approved general tech electives: www.enee.umd.edu/Academic/Under/advising/General_tech_electives.html

Gateway requirements		
Requirements	Credits	Grade
ENGL 101	3	
CHEM 135, 271 or 113	3	
MATH 141	4	
PHYS 161	3	
An approved Distributive Studies course	3	
ENES 100 (required for Freshmen Direct Admits)	3	

Benchmark 2 requirements		
MATH 140, 141, 241 and 246	16	
PHYS 161, 260, 261, 270 and 271	11	
ENES 100, ENEE 150, 200, 205, 222, 244	20	

Benchmark 3 requirements		
ENEE 245, 303, 307, 322 and 380	11	
One additional 300 level ENEE course	3	
At least two courses from 300 lvl, ENEE tech electives OR general tech electives.	6	