

ELECTRICAL ENGINEERING - Class of 2017

Total Credits = **123 -126**

Freshman Year *Fall* Semester

Course Code	Description	Cr	
CHM 101	General Chemistry I Lec [GE-N]	3	
CHM 102	General Chemistry I Lab	1	
ECN 201	Principles of Microeconomics [GE-S]	3	
EGR 105	Foundations of Engineering I	1	
MTH 141	Intro Calculus w/Analytic Geom [GE-MQ]	4	
PHY 203	Elementary Physics I Lect [GE-N]	3	
PHY 273	Elementary Physics I Lab [GE-N]	1	

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Freshman Year *Spring* Semester

Course Code	Description	Cr	
CSC 200	Computer Problem Solving	4	
EGR 106	Foundations of Engineering II	2	
ELE 101	Intro to Electrical Engineering	1	
MTH 142	Intermed Calc with Analytic Geom [GE-MQ]	4	
PHY 204	Elementary Physics II Lec [GE-N]	3	
PHY 274	Elementary Physics II Lab [GE-N]	1	

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Sophomore Year *Fall* Semester

Course Code	Description	Cr	
ELE 201	Digital Circuit Design	3	
ELE 202	Digital Circuit Design Lab	1	
MTH 362	Advanced Engineering Mathematics I	3	
PHY 205	Elementary Physics III Lec [GE-N]	3	
PHY 275	Elementary Physics III Lab [GE-N]	1	
	General Education Elective*	3	

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Sophomore Year *Spring* Semester

Course Code	Description	Cr	
ELE 205	Microprocessors	2	
ELE 206	Microprocessor Lab	1	
ELE 212	Linear Circuit Theory	3	
ELE 215	Linear Circuits Lab	2	
MTH 243	Calculus for Functions of Several Vars	3	
PHY 306	Elementary Modern Physics	3	
	General Education Elective*	3	

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Junior Year *Fall* Semester

Course Code	Description	Cr	
ELE 313	Linear Systems	3	
ELE 331	Intro to Solid State Devices	4	
ELE 338	Electronics I	3	
ELE 339	Electronics I Lab	1	
MTH 451 <i>or</i> ISE 411	Intro to Probability and Statistics <i>or</i> Probability and Statistics for Engineers	3	
	General Education Elective*	3	

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Junior Year *Spring* Semester

Course Code	Description	Cr	
ELE 301	Electronic Design Automation	3	
ELE 302	Electronic Design Automation Lab	1	
ELE 314	Linear Systems and Signals	3	
ELE 322	Electromagnetic Fields I	4	
ELE 343	Electronics II	3	
ELE 344	Electronics II Lab	1	

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Senior Year *Fall* Semester

Course Code	Description	Cr	
ELE 400	Intro to Professional Practice	1	
ELE 480	Capstone Design I	3	
	Electrical Engineering Design Elective**	4	
	Electrical Engineering Design Elective**	3-4	
	Professional Elective**	3-4	

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Senior Year *Spring* Semester

Course Code	Description	Cr	
ELE 481	Capstone Design II	3	
	Electrical Engineering Design Elective**	3-4	
	General Education Elective*	3	
	General Education Elective*	3	
	Free Elective	3	

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* Note the following *specific* requirements and restrictions for General Education [GE] electives:

-Refer to *specific* Electrical Engineering General Education *course requirements* (see 2017 ELE Check Sheet).

-[GE-EC/ECw] Must take at least *six (6)* credits of General Education [GE-EC/ECw], with at least *one (1)* course in writing, [GE-ECw].

-[GE-ECw] Can only take *one (1)* of the following **100-level** writing courses for General Education credit [GE-ECw]: WRT 104, WRT 105, WRT 106.

** **Electrical Engineering Design Electives** are chosen as follows: *three (3)* courses from ELE 401/402, 423, 427/428, 432, 435/436, 444/445, 447/448, 457, or 458/459. At least *one (1)* course must include a lab component. Furthermore, *one (1)* course must be from ELE 401/402, 423, 432, 444/445, or 447/448.

*** **Professional Elective** is chosen as follows: *one (1)* course from: BME 462; BME/ELE 461; ELE 405/406, 408/409, 437, 438, 470, *or one (1)* additional Electrical Engineering Design Elective; MTH 215; or, by prior approval of the ECBE department Chair, any junior or senior level College of Engineering

Name _____

ID # _____

ELECTRICAL ENGINEERING - Class of 2017**123-126 Credits**

SPECIFIED MATH, SCIENCE, AND ENGINEERING COURSES											
INTRODUCTORY ENGINEERING						ENGINEERING SCIENCE AND DESIGN					
Sem	Course	Cr	Grade	QP	Note	Sem	Course	Cr	Grade	QP	Note
	EGR 105	1					ELE 101	1			
	EGR 106	2					ELE 201	3			
		3					ELE 202	1			
MATHEMATICS							ELE 205	2			
	MTH 141 [GE-MQ]	4					ELE 206	1			
	MTH 142 [GE-MQ]	4					ELE 212	3			
	MTH 243	3					ELE 215	2			
	MTH 362	3					ELE 301	3			
	MTH 451 <i>or</i> ISE 411	3					ELE 302	1			
		17					ELE 313	3			
NATURAL SCIENCES							ELE 314	3			
	CHM 101 [GE-N]	3					ELE 322	4			
	CHM 102	1					ELE 331	4			
	PHY 203 [GE-N]	3					ELE 338	3			
	PHY 273 [GE-N]	1					ELE 339	1			
	PHY 204 [GE-N]	3					ELE 343	3			
	PHY 274 [GE-N]	1					ELE 344	1			
	PHY 205 [GE-N]	3					ELE 400	1			
	PHY 275 [GE-N]	1					ELE 480	3			
	PHY 306	3					ELE 481	3			
		19						46			
COMPUTER SCIENCE						*ELECTRICAL ENGINEERING DESIGN ELECTIVES					
	CSC 200	4						4			
								3-4			
								3-4			
								10-12			
						**PROFESSIONAL ELECTIVE					
		4						3-4			
GENERAL EDUCATION [GE] COURSES											
BREADTH At least one course in <i>each</i> of the Gen Ed Areas						DEPTH At least one additional course in 3 <i>different</i> Gen Ed Areas Remainder are taken in <i>any</i> Gen Ed Area/Areas					
Sem	Course	Cr	Grade	QP	Note	Sem	Course	Cr	Grade	QP	Note
***English Communication-Writing [GE-ECw]						Natural Sciences [GE-N]					
	WRT	3				---	<i>Satisfied by Required Courses</i>	12	---	---	---
Mathematical and Quantitative Reasoning [GE-MQ]						Mathematical and Quantitative Reasoning [GE-MQ]					
	<i>Satisfied by</i> MTH 141	4	---	---	---		<i>Satisfied by</i> MTH 142	4	---	---	---
Fine Arts & Literature [GE-A]						***One additional course from: EC/ECw					
		3					[GE-EC/ECw]	3			
Foreign Language/Culture [GE-FC]						Free Elective					
		3						3			
Letters [GE-L]						Other Courses (<i>not for degree credit</i>)					
		3									
Natural Sciences [GE-N]											
	<i>Satisfied by</i> CHM 101	3	---	---	---						
Social Sciences [GE-S]											
	ECN 201	3									

* **Electrical Engineering Design Electives** are chosen as follows: *three (3)* courses from ELE 401/402, 423, 427/428, 432, 435/436, 444/445, 447/448, 457, 458/459.

At least *one (1)* course *must* include a lab component. Furthermore, *one (1)* course must be from ELE 401/402, 423, 432, 444/445, 447/448.

** **Professional Elective** is chosen as follows: *one (1)* course from: BME 462; BME/ELE 461; ELE 405/406, 408/409, 437, 438, 470

or one (1) additional Electrical Engineering Design Elective; MTH 215; or, by prior approval of ECBE department Chair, any junior or senior level College of Engineering course not required by the ELE major.

*** **Note the following specific requirements and restrictions for General Education [GE] electives:**

-[GE-EC/ECw] *Must* take at least *six (6)* credits from General Education [GE-EC/ECw], with at least *one (1)* course in *writing* [GE-ECw].

-[GE-ECw] Can only take *one (1)* of the following **100-level** writing courses for General Education credit [GE-ECw]: WRT 104, WRT 105, WRT 106.