ELECTRICAL ENGINEERING - Class of 2019

Total Credits = 120 -123

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	
	General Education Elective*	3	
		15	

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 203	Elementary Physics I Lect [GE-N]	3	
PHY 273	Elementary Physics I Lab [GE-N]	1	
		15	

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 204	Elementary Physics II Lec [GE-N]	3	
PHY 274	Elementary Physics II Lab [GE-N]	1	
	General Education Elective*	3	
	General Education Elective*	3	
		17	

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 205	Elementary Physics III Lec [GE-N]	3	
PHY 275	Elementary Physics III Lab [GE-N]	1	
		15	

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 *or* ISE 411	Intro to Probability and Statistics *or* Probability and Statistics for Engineers	3	
		14	

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	
		15	

Senior Year *Fall* Semester

Course Code	Description	Cr	
ELE 400	Intro to Professional Practice	1	
ELE 480	Capstone Design I	3	
	Professional Elective**	4	
	Professional Elective**	3-4	
	Professional Elective**	3-4	
		14 -16	

Senior Year *Spring* Semester

Course Code	Description	Cr	
ELE 481	Capstone Design II	3	
	Professional Elective**	3-4	
	General Education Elective*	3	
	General Education Elective*	3	
	Free Elective	3	
		15 -16	

 * **Note:** Refer to *specific* Electrical Engineering General Education *course requirements (see 2018 ELE Check Sheet).*

** **Professional Electives:** *Four (4)* courses that satisfy **both** of the following:

 (a) *Three (3)* courses from: ELE 401/402, 423, 425, 432, 435/436, 444/445, 447/448, 457, 458/459, *and at least one (1)* must be from; 401/402, 423, 432, 444/445, 447/448, *and at least one (1)* must include a lab component (401/402, 435/436, 444/445, 447/448, 458/459); **and**

 (b) The *fourth* course must be from: an additional course from *(a) above;* BME/ELE 461; ELE 405/406, 408/409, 437, 438, 470; *with prior approval* of the Electrical, Computer, and Biomedical Engineering department chairperson, any other 300- or 400-level College of Engineering course not required by the ELE major.

Name _____   ID # _____

ELECTRICAL ENGINEERING - Class of 2019   120-123 Credits

SPECIFIED MATH, SCIENCE, AND ENGINEERING COURSES

Sem	INTRODUCTORY ENGINEERING Course	Cr	Grade	QP	Note	Sem	ENGINEERING SCIENCE AND DESIGN 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 *or* 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			
							ELE 481	3			
		16						**46**			
	COMPUTER SCIENCE						***PROFESSIONAL ELECTIVE**				
	CSC 200	4						4			
								3-4			
								3-4			
								3-4			
		4						**13-16**			

GENERAL EDUCATION [GE] COURSES

Sem	BREADTH At least one course in *each* of the Gen Ed Areas Course	Cr	Grade	QP	Note	Sem	DEPTH At least one additional course in 3 *different* Gen Ed Areas Remainder are taken in *any* Gen Ed Area/Areas Course	Cr	Grade	QP	Note
	**English Communication-*Writing* [GE-ECw]						**Natural Sciences [GE-N]**				
	WRT	3				✔	*Satisfied by Required Courses*	12	---	---	---
	Mathematical and Quantitative Reasoning [GE-MQ]						**Mathematical and Quantitative Reasoning [GE-MQ]**				
✔	*Satisfied by* MTH 141	4	---	---	---	✔	*Satisfied by* 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 *(not for degree credit)***				
		3									
	Natural Sciences [GE-N]										
✔	*Satisfied by* CHM 101	3	---	---	---						
	Social Sciences [GE-S]										
	ECN 201	3									

* **Professional Electives:** *Four (4)* courses that satisfy both of the following:
  (a) *Three (3)* from ELE 401/402, 423, 425, 432, 435/436, 444/445, 447/448, 457, 458/459 of which at least one (1) must be from 401/402, 423, 432, 444/445,
     447/448 and at least one (1) must include a lab component (401/402, 435/436, 444/445, 447/448, 458/459).
  (b) The *fourth* course must be from: an additional course from (a) above; BME/ELE 461; ELE 405/406, 408/409, 437, 438, 470; *with prior approval*
     of the ECBE Department chairperson, any 300- or 400-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, or WRT 106.