

ELECTRICAL ENGINEERING CURRICULUM 2022

Louisiana Tech University

Name _____

Date _____

CWID _____

Email _____@latech.edu

COURSE	PREREQUISITE	SCH	QTR	GRADE
ELEN 223	ENGR 221	3	WS	R*
224	ELEN 223, MATH 245○	3	F	R
229	ELEN 224○	1	F	R
242	MATH 242○	3	FW	R
313	PHYS 202, ENGR 221, MATH 241-244 GPA >=2.0,	3	W	R
321	ELEN 224, MATH 245	3	W	R
322	ELEN 321	3	S	R
333	ELEN 242	3	WS	R
334	MATH 244, PHYS 202, ENGR 221	3	F	R
335	ELEN 224, 334	3	W	R
336	ELEN 335	3	S	R
339	ELEN 336○	1	S	R
406	ELEN 321,322,336,339,411 & Senior Standing	1	F	R
407	ELEN 406	1	W	R
408	ELEN 407	1	S	R
411	ELEN 313	3	S	R
BISC 101		3		
CHEM 101	CHEM 100	2		
103	CHEM 100, 101○	1		
COMM 101	FYE 100○	3		
ENGL 101		3		
102	ENGL 101	3		
303	ENGL 102	3		
ENGR 120	MATH 240○, CHEM 100○	2		*
121	ENGR 120, MATH 241○, CHEM 101○	2		*
122	ENGR 121, MATH 242○	2		*
220	ENGR 122, MATH 242, PHYS 201	3		
221	ENGR 122, MATH 242, PHYS 201	3		*
222	ENGR 122, MATH 242	3		
425		1		
MATH 241	MATH 240	3		*
242	MATH 241	3		*
243	MATH 242	3		*
244	MATH 243	3		*
245	MATH 244	3		*
313	MATH 245	3		R
PHYS 201	MATH 241	3		*
202	MATH 242, PHYS 201	3		
ELECTIVES/ GER				
Art (ART 290, KINE 280, MUGN 290, or THTR 290)	MUGN 290	3		
ELEN Directed Elective		3		R1
ELEN Directed Elective		3		R1
ELEN Directed Elective		3		R1
ELEN Senior Elective		3	FW	R4
ELEN Senior Elective		1	FW	R4
ELEN Senior Elective		3	FW	R4
ELEN Senior Elective		1	FW	R4
Humanity		3		
MATH, STAT, or PHYS Elective		3		R
Social Science		3		
Social Science		3		
TOTAL SEMESTER HOURS		128		

SUBSTITUTIONS		
COURSE	SCH	GRADE
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

ADDITIONAL COURSES		
COURSE	SCH	GRADE
1		
2		
3		
4		
5		

GPA	
Rubric GPA	_____
MATH 241-244 GPA	_____

NOTES	
*	requires grade of "C" or higher
○	credit or registration in
R	course in rubric
1	Directed electives must be selected in consultation with program chair.
2	Petitions must be filed for substitutions.
3	A student must have a minimum 2.0 GPA on all hours pursued in courses designated: R.
4	ELEN Senior Electives: Complete 2 out of 4 groups. (1) ELEN 438 & 439 (2) ELEN 461 & 469 (3) ELEN 471 & 479 (4) ELEN 481 & 489

ADDITIONAL COMMENTS	

Advisor: _____

ELECTRICAL ENGINEERING
Louisiana Tech University

FRESHMAN YEAR								
Fall Quarter		Hr	Winter Quarter		Hr	Spring Quarter		Hr
ENGR 120	* Engineering Problem Solving I	2	ENGR 121	* Engineering Problem Solving II	2	ENGR 122	* Engineering Problem Solving III	2
MATH 240	* Precalculus	3	MATH 241	* Calculus I	3	MATH 242	* Calculus II	3
CHEM 100	* General Chemistry	2	CHEM 101	General Chemistry	2	PHYS 201	* Physics for Engr & Science I	3
COMM 101	□ Principles of Comm Studies	3	CHEM 103	General Chemistry Laboratory	1	ENGL 102	Freshman Composition II	3
FYE 100	First Year Experience	1	ENGL 101	Freshman Composition I	3			
		11			11			11

SOPHOMORE YEAR								
Fall Quarter		Hr	Winter Quarter		Hr	Spring Quarter		Hr
ENGR 221	* Electrical Engineering & Circuits I	3	ENGR 220	Statics & Mechs of Materials	3	ENGR 222	Thermodynamics	3
MATH 243	* Calculus III	3	MATH 244	* Calculus IV	3	MATH 245*	Differential Equations	3
ELEN 242	Intro to Microprocessors	3	ELEN 223	* Electrical Circuits II	3	PHYS 202	Physics for Engr & Sci. II	3
BISC 101	Fundamentals of Biology	3	ELEN 333	Intro to Digital Design	3	ENGL 303	Technical Writing	3
		12			12			12

JUNIOR YEAR								
Fall Quarter		Hr	Winter Quarter		Hr	Spring Quarter		Hr
ELEN 224	Electrical Circuits III	3	ELEN 313	Intro to Elec & Magnetic Fields	3	ELEN 322	Digital Signal Processing	3
ELEN 229	Electrical Circuits Lab	1	ELEN 321	Linear Systems	3	ELEN 336	Electronic Circuits II	3
ELEN 334	Solid State Electronics	3	ELEN 335	Electronic Circuits I	3	ELEN 339	Electronic Circuits Lab	1
MATH 313	Intro to Numerical Analysis	3	Social Science**		3	ELEN 411	Electric & Magnetic Fields	3
		10			12			10

SENIOR YEAR								
Fall Quarter		Hr	Winter Quarter		Hr	Spring Quarter		Hr
ELEN 406	Electrical Engr Design I	1	ELEN 407	Electrical Engr Design II	1	ELEN 408	Electrical Engr Design III	1
ELEN	Sr Option 1β	4	ELEN	Sr Option 2β	4	ELEN	Directed Elective◊	3
ELEN	Directed Elective◊	3	ELEN	Directed Elective◊	3	Fine Arts Appreciation		3
ENGR 425	Engr. Ethics & Professionalism	1	Humanity†		3	Social Science**		3
MATH/SCI Elective		3						
		12			11			10

Neither MATH 240 nor CHEM 100 count towards the electrical engineering degree.

* requires grade of "C" or higher.

β Select from: FALL - ELEN 437 and 439 or ELEN 471 and 479; or WINTER - ELEN 461 and 469 or ELEN 481 and 489.

Courses in **bold** are typically offered only once per year.

◊Directed electives are chosen in consultation with advisor and approved by the Program Chair. Three must be ELEN; the other must be MATH, STAT, or PHYS.

ELEN Directed Electives must be ELEN 400 level courses. The MATH/SCI elective must be a 300/400 level Math, STAT, or PHYS course.

- must be completed within first year of enrollment

**Social Science electives can be selected from Anthropology, Criminal Justice, Economics, Geography, International Studies, Interdisciplinary, Political Science, Psychology, and Sociology.

†Humanities electives can be selected from Classical Studies, Communications, Foreign Languages, History, Literature, Philosophy, Religious Studies, Interdisciplinary