

ELECTRICAL ENGINEERING

127-129 Semester Hours

FALL		SPRING	
*FST 101 – Succeeding & Engaging at SIUE	1	ENG 102 – English Composition II ³	3
IE 106 – Engineering Problem Solving	3	MATH 152 – Calculus II (BPS)	5
CHEM 131 – Engineering Chemistry ⁺ (BPS)	4	PHYS 141 – Physics I for Engineering ⁺⁺ (BPS)	3
CHEM 135 – Engineering Chemistry Lab ⁺ (EL)	1	PHYS 151L – University Physics Lab I ⁺⁺ (EL)	1
ENG 101 – English Composition I ¹	3	ACS 103 - Interpersonal Communication Skills ⁴ (EUSC)	3
MATH 150 – Calculus I ² (QR)	5		
TOTAL	17	TOTAL	15

FALL		SPRING	
ECE 210 – Circuit Analysis I	3	ECE 211 – Circuit Analysis II	4
CS 145 – Introduction to Computing I ⁺⁺⁺	3	ECE 282 – Digital Systems Design	4
MATH 250 – Calculus III (BPS)	4	Breadth-Fine & Performing Arts (BFPA)	3
PHYS 142 – Physics II for Engineering ⁺⁺ (BPS)	3	MATH 305 – Differential Equations I (BPS)	3
PHYS 152L – University Physics II ⁺⁺ (BPS)	1	ECON 111 – Macroeconomics (BSS)	3
TOTAL	14	TOTAL	17

FALL		SPRING	
ECE 326 – Electronic Circuits I	4	ECE 340 – Engineering Electromagnetics	3
ECE 351 – Signals and Systems	3	ECE 365 – Control Systems	3
ECE 352 – Engr. Probability & Statistics	3	ECE 375 – Introduction to Communications	3
MATH 355 – Engineering Mathematics	5	Breadth-Life Science (BLS) ⁵	3
Health Experience ⁵ (EH)	0/2	Info & Communication in Society (BICS)	3
		Non ECE Tech Elective ⁶	3
TOTAL	15/17	TOTAL	18

FALL		SPRING	
ECE 341 – Electromechanical Energy Conv.	4	ECE 405 – ECE Design Laboratory	3
ECE 404 – ECE Design	3	ECE Elective III	3
ECE Elective I	3	ECE Elective IV	3
ECE Elective II	3	IE 345 – Engineering Economic Analysis	3
PHIL 323 – Engr Ethics and Prof (BHUM) ⁷	3	Interdisciplinary Studies (IS) ⁸ (EGC) ⁸ (EUSC) ⁸	3
TOTAL	16	TOTAL	15

Declaration of Major: Students interested in any of the majors offered by the School of Engineering should seek advisement from the School of Engineering when they initially enroll in the University and should declare a major as soon as possible. Students admitted to programs offered by the School of Engineering shall have met University admission requirements, successfully completed any required academic development and high school deficiency courses, eligibility to enroll in MATH 125 – Pre-Calculus, and have a cumulative GPA of 2.0 or better in any completed University course work.

SEE REVERSE SIDE FOR ADDITIONAL INFORMATION.
FOR MORE INFORMATION CONTACT:
THE DEPARTMENT OF ELECTRICAL & COMPUTER ENGINEERING AT (618) 650-2524

*FST 101 – for first time freshmen only. Must be taken in the first semester.

+CHEM 121A and CHEM 125A are acceptable substitutes in lieu of CHEM 131 and CHEM 135.

++Physics I for Engineering - co-requisites: MATH 152 and PHYS 151L. prerequisites: ACT Math subscore of 28 or higher *or* high school physics grade of B or higher *or* Physics Readiness Exam Score 09 *or* PHYS 140.

++Physics II for Engineering - prerequisites: PHYS 141 with a grade of C or higher *or* PHYS 151 with a grade of C or higher; MATH 152 with a grade of C or higher; PHYS 151L with a grade of C or higher.

+++CS 140 is an acceptable substitute in lieu of CS 145.

¹ENG 101 must be successfully completed within the First 30 Hours.

²Quantitative Reasoning (QR) 101 must be successfully completed within the First 60 Hours. MATH 150 successfully completed (with a grade of 'C' or better) will fulfill this requirement.

³ENG 102 must be successfully completed within the First 45 Hours.

⁴ACS 103 must be successfully completed within the First 30 Hours. ACS 103 can be used as a Foundations course, and will also fulfill the EUSC requirement. If ACS 101 is taken instead of ACS 103, the EUSC requirement will have to be met by another appropriate course.

⁵Students may be able to complete the Health Experience (EH) as an approved project or activity. If so, an additional course is not needed. In addition, *BIOL 203 or *BIOL 205 will fulfill a BLS and EH requirement. *Prerequisite/s required courses.

⁶CE 240, MATH 321, ME 310, PHYS 303, or any 3 credit hour 400 level course in Engineering (non ECE), Mathematics, or Physics.

⁷PHIL 323 will fulfill the RA 101 requirement.

⁸Interdisciplinary Studies (IS) Courses must be taken at the junior/senior level class standing. This requirement is not waived with completion of transfer associate degree or IAI-GECC. It is recommended that students choose a course to meet this general education requirement and Global Cultures (EGC). Selecting one of the following: IS 324, 326, 336, 340, 352, 353, 363, 375, 377, 400 or 401 will satisfy both the requirement of an IS course and the GLOBAL CULTURES (GC) requirements. In addition, IS 352 and 375 will fulfill the EGC, EUSC and IS requirements. If a course is not selected that meets two general education requirements, then a course from the list of GC courses must also be taken.

Effective Fall 2003:

Enrollment in any of the ECE courses is limited to students with a declared major in one of the engineering disciplines. Exceptions to this rule require the approval of the department chair.

A prerequisite for an ECE course can only be fulfilled by a grade of C or better. A grade of D is sufficient to pass a course, but is not sufficient to qualify the student to enroll in a more advanced ECE course that lists the former as a prerequisite.

Exit Requirements for Electrical Engineering Program

Satisfactory completion of all University requirements for graduation,

- a cumulative grade point average of 2.0 or higher for courses taught in the School of Engineering,
- a grade point average of 2.0 or higher in electrical and computer engineering courses numbered above 299,
- completion of at least 30 hours of the required electrical and computer engineering courses at SIUE, and
- completion of Senior Assignment contained in ECE 404 and 405.

2nd Degree or Double Major Restrictions

- A course that is required in one program cannot be used as an elective in the other.
- The elective courses taken in each discipline must be separate courses. No elective course can be used to satisfy the requirements of two programs simultaneously

Requirements for a Minor in Electrical Engineering

A minor in Electrical Engineering requires 24 semester hours. The courses required are ECE 210, ECE 211, ECE 282, ECE 326, ECE 340, ECE 351, ECE 365. A cumulative grade point average of 2.0 or higher is required in these courses.

University Requirements (Non-General Education)

- **Bachelor of Science Degree Requires completion of 8 lecture courses in life (BLS* or LS*), physical (BPS* or PS*) or social science (BSS* or SS*) including 2 with labs (EL*)**
- **Minimum of 120 semester hours must be completed.**
- **Minimum GPA of 2.0 must be achieved.**