

SOUTHERN ILLINOIS UNIVERSITY EDWARDSVILLE

CURRICULUM FOR ELECTRICAL ENGINEERING MAJOR

128 Semester Hours

FALL

CHEM 131	- Engineering Chemistry	- 4
CHEM 135	- Engineering Chemistry Lab	- 1
ENG 101	- English Composition I	- 3
IME 106	- Engineering Problem Solving	- 3
MATH 150	- Calculus I	<u>-5</u>
		16

SPRING

ENG 102	- English Composition II	- 3
MATH 152	- Calculus II	- 5
PHYS 151	- University Physics I	- 4
PHYS 151L	- University Physics Lab I	- 1
SPC 103 *	- Interpersonal Communications	<u>-3</u>
		16

FALL

ECE 210	- Circuit Analysis I	- 3
CS 145	- Introduction to Computing I	- 3
ECON 111	- Macroeconomics	- 3
PHYS 152	- University Physics II	- 4
PHYS 152L	- University Physics Lab II	- 1
MATH 250	- Calculus III	<u>-4</u>
		18

SPRING

ECE 211	- Circuit Analysis II	- 4
ECE 282	- Digital Systems Design	- 4
FAH or SS—Intro ***		- 3
MATH 305	- Differential Equations I	- 3
DIST. SOCIAL SCIENCE		<u>-3</u>
		17

FALL

ECE 326	- Electronic Circuits I	- 4
ECE 351	- Signals and Systems	- 3
ECE 352	- Engr Probability & Statistics	- 3
MATH 355	- Engineering Mathematics	<u>-5</u>
		15

SPRING

Non-ECE Elective **		- 3
ECE 340	- Engineering Electromagnetics	- 3
ECE 365	- Control Systems	- 3
ECE 375	- Introduction to Communications	- 3
FAH Intro		<u>-3</u>
		15

FALL

ECE 404	- ECE Design	- 3
ECE 341	- Electromechanical Energy Conv.	- 4
ECE Elec	- Elective I	- 3
ECE Elec	- Elective II	- 3
PHIL 323	- Engineering, Ethics & Prof.	<u>-3</u>
		16

SPRING

ECE 405	- ECE Design Laboratory	- 3
ECE Elec	- Elective III	- 3
ECE Elec	- Elective IV	- 3
IME 345	- Engineering Economic Analysis	- 3
INTERDISCIPLINARY STUDIES ***		<u>-3</u>
		15

* SPC 103 satisfies the Intergroup Relations requirement. If SPC 104 or 105 is taken instead, then a course from the list of Intergroup Relations courses in the current SIUE Undergraduate Catalog must also be taken.

** CE 240, MATH 321, ME 310, PHYS 303 or any 3.0 credit hour 400 level class in Engineering (Non ECE), MATH and Physics.

*** The following courses satisfy the International Issues (II) or International Culture requirement: ANTH 111, FL 111a, FL 111b, FL 111c, FL 111d, FL 111e, GEOG 111, HIST 111a, 111b, POLS 111, IS 324, IS 326, IS 336, IS 340, IS 352, IS 353, IS 363, IS 364, IS 375, IS 400, IS 401. **If a course other than those listed above is taken, an additional course from the list of II/IC courses in the current SIUE Undergraduate Catalog must also be taken.**

NOTE: The general education courses listed in the curriculum guide meet Option A of the Skills requirement. A student who wishes to select Option B may replace IME 106 with SPC 103 with two semesters of a foreign language (101 and 102). An appropriate course is required to meet the Intergroup Relations requirements for students selecting Option B (see catalog).

Effective Fall 2003

Enrollment of 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 a student to enroll in a more advance ECE course that lists the former as a prerequisite.

**FOR MORE INFORMATION CONTACT
THE DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING
AT 618-250-2524**

Revision Date: May 26, 2010 Effective Fall 2010

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, completed MATH 120 – College Algebra (or high school equivalent) with a grade of C or better and have a cumulative GPA of 2.0 or better in any completed university course work.

Students with high school deficiencies, those with AD (academic development) requirements and those starting in a mathematics course before MATH 150 – Calculus I, will require more than the eight (8) academic semesters shown in this curriculum guide.

Degree Requirements

Bachelor of Science – Electrical Engineering

Natural Science and Mathematics Courses 37

CHEM 131, 135 (or 121a, 125a)	5
MATH 150, 152, 250, 305, 355	22
PHYS 151, 151L, 152, 152L	10

Engineering Courses 55

ECE 210, 211, 282, 326, 340, 341, 351, 352, 365, 375, 404, 405	40
ECE Electives	12
IME 345	3

Non-ECE Elective** 3

Fine Arts and Humanities Courses 9

Intro Fine Arts/Humanities Courses	6
PHIL 323	3

Social Science Courses 6

ECON 111	3
Dist. Social Science Course	3

Interdisciplinary Course 3

Skills Courses 15

CS 145 (or CS 140)	3
ENG 101, 102	6
SPC 103, 104 or 105	3
IME 106	3

Total 128

** CE 240, MATH 321, ME 310, PHYS 303 or any 3.0 credit hour 400 level class in Engineering (Non ECE), Math or Physics.

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 ECE courses numbered above 299,
- Completion of at least 30 hours of the required ECE courses at SIUE,
- 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 and ECE 365. A cumulative grade point average of 2.0 or higher is required in these courses.

Academic Status

Student must meet the following standards. Students who fail to do so will be placed on probation in the major.

1. Maintain a cumulative grade point average of 2.0.
2. Maintain a term grade point average above 1.0 in any term.
3. Maintain a cumulative grade point average of at least 2.0 in all mathematics and science courses.
4. Students must maintain a cumulative grade point average of at least 2.0 in courses taught in the School of Engineering.
5. Students must maintain a cumulative grade point average of at least 2.0 in major courses numbered above 299.
6. Students must receive no more than two failure grades, incomplete and/or withdrawals in any combination for a single course required in the major.

Students placed on probation should seek immediate advisement and will be given the conditions required for removal from probation. If the conditions are not met, students are dropped from the major and may not enroll in upper-division School of Engineering courses without written department permission. After one year, students are eligible to re-apply for admission to the major. Students dropped from the major may direct a written appeal to the departmental Academic Standards Committee.