Effective Fall 2019

COMPUTER ENGINEERING

128-130 Semester Hours

FALL		**SPRING**	
*FST 101 – Succeeding & Engaging at SIUE	1	CS 140 – Introduction to Computing I	4
IE 106 – Engineering Problem Solving	3	ENG 102 – English Composition II[3]	3
CHEM 131 – Engineering Chemistry[+] (BPS)	4	MATH 152 – Calculus II (BPS)	5
CHEM 135 – Engineering Chemistry Lab[+](EL)	1	PHYS 141 – Physics I for Engineering[++] (BPS)	3
ENG 101 – English Composition I[1]	3	PHYS 151L – University Physics Lab I[++] (EL)	1
MATH 150 – Calculus I[2] (QR)	5		
	17	TOTAL	16

FALL		**SPRING**	
ECE 210 – Circuit Analysis I	3	ECE 211 – Circuit Analysis II	4
CS 150 – Introduction to Computing II	3	ECE 282 – Digital Systems Design	4
MATH 250 – Calculus III (BPS)	4	CS 240 – Introduction to Computing III	3
PHYS 142 – Physics II for Engineering[++](BPS)	3	MATH 305 – Differential Equations I (BPS)	3
PHYS 152L – University Physics Lab II[++] (EL)	1	ACS 103 – Interpersonal Communication Skills[4]	3
TOTAL	14	TOTAL	17

FALL		**SPRING**	
ECE 326 – Electronic Circuits I	4	Breadth-Life Science (BLS)[5]	3
ECE 351 – Signals and Systems	3	ECE 381 – Microcontrollers	3
ECE 352 – Engr. Probability & Statistics	3	ECE 483 – Advanced Digital System Engineering	3
CS 286 – Intro to Comp. Org. & Architecture	3	ECE/CS Elective I	3
MATH 224 – Discrete Mathematics	3	ECON 111 – Macroeconomics (BSS)	3
		Breadth-Fine & Performing Arts (BFPA)	3
TOTAL	16	TOTAL	18

FALL		**SPRING**	
ECE 404 – ECE Design	3	ECE 405 – ECE Design Laboratory	3
ECE/CS Elective II	3	ECE/CS Elective III	3
CS 314 – Operating Systems	3	CS 340 – Algorithms and Data Structures	3
Breadth-Info & Communication in Society (BICS)	3	IE 345 – Engineering Economic Analysis	3
PHIL 323 – Engr Ethics and Prof (BHUM)[6]	3	Interdisciplinary Studies (IS)[7] (EGC)[7] (EUSC)[7]	3
Health Experience[5] (EH)	0/2		
TOTAL	15/17	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 131and 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.

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

[2]Quantitative 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.

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

[4]ACS 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.

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

[6]PHIL 323 will fulfill the RA 101 requirement.

[7]Interdisciplinary 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 Computer 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 and CS courses numbered above 299.
- Completion of at least 30 hours of the required ECE and CS 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 Computer Engineering

A minor in Computer Engineering requires 23 semester hours. The courses required are: ECE 210, ECE 211,

ECE 282, ECE 351, ECE 381, CS 150 and CS 240. 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.**

***Approved courses are identified in the catalog with this designation. Lists of approved classes may also be obtained at siue.edu/registrar/genedguides.shtml.**