

**SOUTHERN ILLINOIS UNIVERSITY
EDWARDSVILLE**

**Southwestern Illinois College
Pathway - Computer Engineering**

**Southwestern Illinois College
Associate in Engineering Science Degree
Fall Year 1**

SWIC Course	Hours
ENG 101 Rhetoric and Composition I	3
MATH 203 Analytic Geometry & Calculus I	5
CHEM 105 General Chemistry I	5
IAI Social Science SOC 230 recommended (ERGU)	3
Total	16

Spring Year 1

SWIC Course	Hours
ENG 102 Rhetoric and Composition II	3
MATH 204 Analytic Geometry & Calculus II	5
PHYS 204 Physics- Mechanics	4
COMM 155 Interpersonal Comm (ERGU or EREG)*	3
Total	15

Fall Year 2

SWIC Course	Hours
MATH 205 Analytic Geometry & Calculus III	4
MATH 171 Computer Science I-Java	4
PHYS 205 Physics-Heat/Electrical/Magnetism	4
ECON 201 Principles of Macroeconomics	3
Total	15

Spring Year 2

SWIC Course	Hours
MATH 290 Differential Equations	3
IAI Fine Arts ART 103 or MUS 110	3
BIOL 100/101 General Biology/Principles of Biology I	4
ENGR 271 Electrical Circuits	3
MATH 271 Computer Science II- Java	4
Total	17

Associate in Engineering Science Degree Total 63

**Southern Illinois University Edwardsville
Bachelor of Science Degree
Summer Year 3**

SIUE Course	Hours
ECE 211 Circuit Analysis II	4
Total	4

Fall Year 3

SIUE Course	Hours
ECE 282 Digital Systems Design	4
ECE 351 Signals and Systems	3
ECE 352 Stochastic Processes	3
ECE 326 Electronic Circuits I	4
PHIL 323 Engineering, Ethics & Professionalism	3
Total	17

Spring Year 3

SIUE Course	Hours
ECE 381 Microcontrollers	3
ECE 483 Adv. Digital Systems Engr.	3
ECE/CS XXX Elective I	3
MATH 224 Discrete Math	3
CS 286 Intro to Comp. Org. & Architecture	3
Total	15

Fall Year 4

SIUE Course	Hours
CS 314 Operating Systems	3
ECE 404 ECE Design	3
ECE/CS XXX Elective II	3
ECE/CS XXX Elective III	3
EH Experience Health	2
Total	14

Spring Year 4

SIUE Course	Hours
ECE 405 ECE Design Lab	3
ECE/CS XXX Elective IV	3
CS 340 Algorithms Data Structures	3
IE 345 Engineering Economics	3
IS (EREG/ERGU - if needed)	3
Total	15

Bachelor of Science Degree Total 128

*Students should follow AES subplan. Consult SWIC Advisor or Program Coordinator.

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School of Engineering Transfer Credit Advisory Notes:

Students must earn 60 hours from a senior institution for graduation requirements. If students take all SIUE junior and senior level courses, as stated above, at SIUE, they will meet this requirement. Please note: deviating from the planned schedule above may jeopardize this requirement.

SIUE may accept transfer "D" grades, however, in the School of Engineering, a grade of "C" or better is required in all chemistry, computer science, mathematics, physics, and engineering courses applied to major or minor requirements. A course that transfers as 1XX, 2XX, 3XX or TRF 1XX, TRF 2XX, TRF 3XX may require a course description and/or syllabus for further evaluation.

*A course that satisfies both the ERGU and EREG attribute requirement will only be counted as one attribute and not both.

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, Race, and Equity Education Experience (EREG) or US Race, Gender, and Equity Experience (ERGU). Please see the SIUE advisor for a current list of course options.