

Pathway - Computer Engineering

Southwestern Illinois College Associate in Engineering Degree Fall Year 1

SWIC Course		Hours
ENG 101	Rhetoric and Composition I	3
CHEM 105	General Chemistry I	5
HES 151 ¹	Personal Health & Wellness	2
MATH 203	Analytic Geom & Calc I	5
Total		15

Spring Year 1

SWIC Course		Hours
IAI Fine Arts	ART 103 OR MUS 110	3
MATH 204	Analytic Geom & Calc II	5
PHYS 204	Physics- Mechanics	4
IAI SS ³	IAI Human Relations Social Science	3
ENG 102	Rhetoric and Composition II	3
Total		18

Fall Year 2

SWIC Course		Hours
PHYS 205	Physics-Heat/EL/Mag	4
MATH 205	Analytic Geom & Calc III	4
ELE XXX ³	CIS 185 - recommended	3
MATH 171	Computer Science I- Java	4
ECON 201	Princ. Of Economics I (Macro)	3
Total		18

Spring Year 2

SWIC Course		Hours
MATH 290	Differential Equations	3
BIOL 100/101	General Biology/Prin. Of Biol I	4
ENGR 271	Electrical Circuits	3
COMM 155 ²	Interpersonal Communication	3
MATH 271	Computer Science II- Java	4
Total		17

Associate in Engineering Total **68**

¹Students may also take HES 152 or HES 130 and 131.

²Students may substitute with COMM 151.

³Students should follow Computer Engineering specialty curriculum at SWIC. ELE/Hum/SS are within the AES at SWIC but not the BS at SIUE.

⁴IE 106 may no longer be required if AES is earned. More details coming.

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
CS 240	Intro to Computing III	3
ECE 351	Signals and Systems	3
ECE 352	Stochastic Processes	3
MATH 224	Discrete Mathematics	3
Total		16

Spring Year 3

SIUE Course		Hours
ECE 326	Electronic Circuits I	4
ECE 483	Adv. Digital Systems Eng.	3
ECE 381	Microcontrollers	3
IS	Interdisciplinary Studies	3
CS 286	Intro to Computer Org.	3
Total		16

Fall Year 4

SIUE Course		Hours
CS 314	Operating Systems	3
ECE 404	ECE Design	3
IE 106 ⁴	Engineering Problem Solving	3
ECE/CS XXX	Elective I	3
IE 345	Engineering Economics	3
Total		15

Spring Year 4

SIUE Course		Hours
ECE 405	ECE Design Lab	3
ECE/CS XXX	Elective II	3
ECE/CS XXX	Elective III	3
PHIL 323	Engineering Ethics	3
CS 340	Algorithms & Data Structures	3
Total		15

Bachelor of Science Total **134**

* Students must complete 50% or more of SIUE degree requirements at SIUE (120 hours required for graduation).

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

School of Engineering Transfer Credit Advisory Note: *The University 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 in as 1xx, 2xx, 3xx or TRF 1xx; TRF 2xx; TRF 3xx may require a course description and/or syllabus for further evaluation.*