

Pathway - Electrical Engineering

Southwestern Illinois College Associate in Engineering Science Degree

Fall Year 1

SWIC Course		Hours
ENG 101	Rhetoric and Composition I	3
CHEM 105	General Chemistry I	5
COMM 155 ²	Interpersonal Communications	3
HES 151 ¹	Personal Health & Wellness	2
MATH 203	Analytic Geom & Calc I	5
Total		18

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 ⁴	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 171 ³	Computer Science I-Java	4
MATH 205	Analytic Geom & Calc III	4
ENGR 263	Analytical Mech- Statics	3
Total		15

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
ECON 201	Macro-Economics	3
Total		13

Associate in Engineering Science Total **64**

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

²Students may substitute with COMM 151.

³MATH 210 may substitute.

⁴Students should follow Electrical Engineering specialty curriculum at SWIC. ENGR Human Relations is within the AES at SWIC but not the BS at SIUE.

⁵IE 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
ECE 326	Electronic Circuits I	4
ECE 351	Signals and Systems	3
ECE 352	Stochastic Processes	3
BICS	Info & Comm in Society	3
Total		17

Spring Year 3

SIUE Course		Hours
ECE 340	Engineering Electromagnetics	3
ECE 365	Control Systems	3
ECE 375	Intr to Communications	3
PHIL 323	Engineering Ethics	3
IE 106 ⁵	Engineering Problem Solving	3
Total		15

Fall Year 4

SIUE Course		Hours
ECE 341	Electromechanical Energy	3
ECE 404	ECE Design	3
ECE/CS XXX	Elective I	3
ECE/CS XXX	Elective II	3
MATH 355	Engineering Mathematics	5
Total		17

Spring Year 4

SIUE Course		Hours
ECE 405	ECE Design Lab	3
ECE/CS XXX	Elective III	3
ECE/CS XXX	Elective IV	3
IE 345	Engineering Economics	3
IS	Interdisciplinary Studies	3
Total		15

Bachelor of Science Total **132**

*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.*