

Pathway - Mechanical 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
ENGR 103 Engineering Graphics	4
MATH 203 Analytical Geom & Calc I	5
Total	17

Spring Year 1

SWIC Course	Hours
IAI Fine Arts ART 103 or MUS 110	3
MATH 204 Analytical Geom & Calc II	5
PHYS 204 Physics- Mechanics	4
COMM 155 ⁴ Interpersonal Communications	3
ENG 102 Rhetoric and Composition II	3
Total	18

Summer Year 1

SWIC Course	Hours
MATH 210 ² Computer Prog. For Engineers	3
Total	3

Fall Year 2

SWIC Course	Hours
PHYS 205 Physics-Heat/EL/Mag	4
MATH 205 Analytical Geom & Calc III	4
ENGR 263 Analytical Mech-Statics	3
IAI SS ³ IAI Human Relations Social Science	3
HES 151 ¹ Personal Health & Wellness	2
Total	16

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
ENGR 264 Analytical Mech-Dynamics	3
ECON 201 Prin. Of Economics I (Macro)	3
Total	16

Associate in Engineering Science Total 70

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

²Students can substitute MATH 171 for 210.

³Hum/SS is within the AES at SWIC but not the BS at SIUE.

⁴Students may substitute with COMM 151.

⁵IE 106 may no longer be required if AES is earned. More details coming.

Southern Illinois University Edwardsville Bachelor of Science Degree Summer Year 2

SIUE Course	Hours
CE 242 Mechanics of Solids	3
Total	3

Fall Year 3

SIUE Course	Hours
ME 310 Thermodynamics	3
ME 350 Mechanisms	3
ME 370 Materials Engineering	3
ME 354 Numerical Methods	1
STAT 380 Statistics for Application	3
Total	13

Spring Year 3

SIUE Course	Hours
ME 312 Thermodynamics II	3
ME 315 Fluid Mechanics	3
ME 380 Design of Machine Elements	3
ME 380L Stress Lab	1
IE 106 ⁵ Engineering Problem Solving	3
ME 356 Dynamic Systems Modeling	3
Total	16

Fall Year 4

SIUE Course	Hours
ME 410 Heat Transfer	3
ME 410L/ME 356L Thermal/Dynamics Lab	1
ME 482 Mechanical Eng. Design I	2
IE 345 Engineering Economics	3
IS Interdisciplinary Studies	3
ME XXX Elective I	3
Total	15

Spring Year 4

SIUE Course	Hours
ME 410L/ME 356L Thermal/Dynamics Lab	1
ME 484 Mechanical Eng. Design II	2
ME XXX Elective II	3
ME XXX Elective III	3
ELE XXX Engineering Elective	3
PHIL 323 Engineering Ethics	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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NOTE: Students must apply for admission to upper-division classes before starting the junior year at SIUE. The form for 'APPLICATION FOR ADMISSION TO UPPER-DIVISION' must be submitted by the deadline to the academic advisor in the School of Engineering at SIUE.

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.*