SOUTHERN ILLINOIS UNIVERSITY EDWARDSVILLE

Southwestern Illinois College
Pathway - Mechatronics and Robotics 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
ENGR 103[3]	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
HES 151[1]	Personal Health & Wellness	2
IAI SS[3]	IAI Human Relations Social Science	3
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**

Summer Year 2

SWIC Course		Hours
ENGR 275	Mechanics of Solids	3
Total		**3**

Associate in Engineering Science Total ***73***

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

[2]Students can substitute MATH 171 for 210.

[3]Students should follow Mechanical Engineering specialty curriculum at SWIC. ENGR 103 and Hum/SS are within the AES at SWIC but not the BS at SIUE.

[4]Students may substitute with COMM 151.

Southern Illinois University Edwardsville
Bachelor of Science Degree

Fall Year 3

SIUE Course		Hours
ECE 282	Digital Systems Design	4
ME 356	Dynamic Systems Modeling	3
ME 354	Numerical Methods	1
MRE 380	Design of Machine Elements	3
IE 106[5]	Engineering Problem Solving	3
ECE 211	Circuit Analysis II	3
Total		**17**

Spring Year 3

SIUE Course		Hours
MRE 358	Intro to Mechatronics	3
MRE 320	Sensors and Actuators	3
ME 450	Automatic Control	3
ECE 381	Microcontroller	3
MATH 321	Linear Algebra	3
Total		**15**

Fall Year 4

SIUE Course		Hours
MRE 454	Robotics- Dynamics & Controls	3
MRE 480	Design in Mech & Robotics I	2
MRE XXX	MRE Technical Elective	3
IE 345	Engineering Economics	3
IS	Interdisciplinary Studies	3
Total		**14**

Spring Year 4

SIUE Course		Hours
MRE 477	Computer Integ Manu. Systems	3
MRE 481	Design in Mech & Robotics II	2
MRE XXX	MRE Technical Elective	2
STAT 380	Statistics for Applications	3
PHIL 323	Engineering Ethics	3
Total		**13**

Bachelor of Science Total **132**

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

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

Partnership Advising Office
SWIC: Belleville, MC 1070
618-222-5335

SOUTHERN ILLINOIS UNIVERSITY EDWARDSVILLE

Southwestern Illinois College
Pathway - Mechatronics and Robotics Engineering

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.*