

**SOUTHERN ILLINOIS UNIVERSITY
EDWARDSVILLE**

Mechatronics and Robotics Engineering Pathway

Rend Lake College

Associate in Engineering Science Degree

Fall Year 1

RLC Course		Hours
ENGL 1101	Rhetoric and Composition I	3
CHE 1103	Inorganic Chemistry	5
MATH 1121	Calculus and Analytic Geometry I	5
Hum/Fine Arts ¹	ART 1101, MUSI 1100 or THEA 1106	3
ORIE 1101	Orientation	1.5
Total		17.5

Spring Year 1

RLC Course		Hours
ENGL 1102	Rhetoric and Composition II	3
BIO 1100	Biology for Non-Majors	4
PHY 1103	University Physics I	5
MATH 2122	Calculus and Analytic Geometry II	5
Total		17

Fall Year 2

RLC Course		Hours
CSCI 1104	Introduction to Programming	3
PHY 1104	University Physics II	5
MATH 2123	Calculus and Analytic Geometry III	4
PHY 2101	Statics	3
ECON 2101	Principles of Economics I	3
Total		18

Spring Year 2

RLC Course		Hours
Social Science ¹	HIST 2101, HIST 2012 or SOCI 1101	3
PHY 2121	Electrical Engineering Circuits	4
HEA 1101	Health Education	2
PHY 2102	Dynamics	3
MATH 2130	Differential Equations	3
COMM 1101/1104	Prin. Effective Speaking/Interpersonal Comm.	3
Total		18

Associate in Engineering Science Total 70.5

¹RLC requires a Multiculturalism course. Consult RLC advisor.

*Students must complete 50% or more of SIUE degree requirements at SIUE.

Southern Illinois University Edwardsville

Bachelor of Science Degree

Summer Year 3

SIUE Course		Hours
ECE 211	Circuit Analysis II	3
CE 242	Mechanics of Solids	3
Total		6

Fall Year 3

SIUE Course		Hours
ECE 282	Digital System Design	4
ME 356	Dynamic Systems Modeling	3
ME 354	Numerical Simulation	1
MRE 320	Sensors and Actuators	3
MATH 321	Linear Algebra	3
Total		14

Spring Year 3

SIUE Course		Hours
MRE 358	Introduction to Mechatronics	3
ME 450	Automatic Control	3
MRE 380	Design of Machine Elements	3
ECE 381	Microcontroller	3
Total		12

Fall Year 4

SIUE Course		Hours
MRE 454	Robotics, Dynamics & Control	3
MRE 480	Design in Mechatronics & Robotics I	2
MRE XXX	MRE Technical Elective I	3
IE 345	Engineering Economic Analysis	3
IS/EREG	IS/EREG	3
Total		14

Spring Year 4

SIUE Course		Hours
MRE XXX	MRE Technical Elective II	3
MRE 477	Computer-Integ Manufacturing System	3
MRE 481	Design in Mechatronics & Robotics II	2
PHIL 323	Engr. Ethics & Professionalism	3
STAT 380	Statistics for Application	3
Total		14

Bachelor of Science Total 130.5

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School of Engineering Transfer Credit Advisory Notes:

NOTE: Student must apply for admission to upper-division classes before starting their 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, 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 Culture Race and Equity Experience (EREG). Please see the SIUE advisor for a current list of course options.