

**SOUTHERN ILLINOIS UNIVERSITY
EDWARDSVILLE**

Pathway - Mechatronics and Robotics Engineering

**College of DuPage
Associate in Engineering Science**

Fall Year 1

COD Course	Hours
MATH 2231 Calculus & Analytic Geometry I	5
CHEM 1551 Principles of Chemistry	5
ENGL 1101 English Composition I	3
ENGIN 1101 Engineering Graphics & Design	3
Total	16

Spring Year 1

COD Course	Hours
MATH 2232 Calculus & Analytic Geometry II	5
PHYS 2111 Physics for Science & Engineer I	5
ENGL 1102 English Composition II	3
ENGIN 2201 Statics	3
Total	16

Fall Year 2

COD Course	Hours
MATH 2233 Calculus & Analytic Geometry III	4
PHYS 2112 Physics for Science & Engineer II	5
ENGIN 2202 Dynamics	3
ENGIN 2203 Mechanics of Materials	3
IAI LS IAI Life Science	3
Total	18

Spring Year 2

COD Course	Hours
MATH 2270 Differential Equations	4
CIS 2485 C++ for Science & Engineer	3
ENGIN 2210 Circuit Analysis I	3
SPEEC 1160 Interpersonal Communication	3
ECONO 2201 Macroeconomics & Global Economy	3
Total	16

Associate in Engineering Science Degree Total 66

**Southern Illinois University Edwardsville
Bachelor of Science Degree**

Summer Year 2

SIUE Course	Hours
ECE 211 Circuit Analysis II	4
Total	4

Fall Year 3

SIUE Course	Hours
ECE 282 Digital System Design	3
ME 356 Dynamic Systems Modeling	3
ME 354 Numerical Simulation	1
MRE 320 Sensors and Actuators	3
MATH 321 Linear Algebra	3
Total	13

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
PHIL 323 Engineering, Ethics & Professionalism	3
Total	15

Fall Year 4

SIUE Course	Hours
MRE 454 Robotics, Dynamics & Controls	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 Systems	3
MRE 481 Design in Mechatronics & Robotics II	2
STAT 380 Statistics for Applications	3
BFPA Breadth Fine & Performing Arts	3
EH Health Experience	0-2
Total	14

Bachelor of Science Degree Total 126

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

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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.