

Pathway - Mechatronics and Robotics Engineering

Lewis and Clark Community College Associate Degree AES

Fall Year 1

LCCC Course		Hours
ENGL 131	First Year English I	3
CHEM 141	General Chemistry I	5
CHEM 121	Recitation	1
SPCH 145	Public & Private Communication	3
MATH 171	Calculus and Analytic Geo	5

Total **17**

Spring Year 1

LCCC Course		Hours
ENGL 132	First Year English II	3
MATH 172	Calculus and Analytic Geo II	5
PHYS 141	General Physics I	5
ECON 151	Macroeconomics	3

Total **16**

Fall Year 2

LCCC Course		Hours
MATH 271	Calculus and Analytic Geo III	4
PHYS 142	General Physics II	5
CIS 235	C++ Programing Language	3
PHYS 241	Statics	3

Total **15**

Spring Year 2

LCCC Course		Hours
¹ IAI Life Science	IAI Life Science	3
MATH 272	Differential Equations	3
PHYS 242	Dynamics	3
IAI Fine Arts	IAI Fine Arts	3
PHYS 210	Circuit Analysis	3

Total **15**

Associate in Engineering Total **63**

¹ Students please consult with LCCC advisor for courses that can be used for SIUE Life Science requirement

² Students may take PHYS 245 at LCCC in the summer if offered.

If not offered, students will take CE 242 and ECE 111 in the summer at SIUE.

³ IE 106 may no longer be required if AES is earned. More details coming

⁴ ME 450 may be substituted by the two-course series of ECE 365 (control systems) and ECE 465 (control systems design).

Southern Illinois University Edwardsville Bachelor of Science Degree

Summer Year 3

SIUE Course		Hours
² CE 242	Mechanics of Solids	3
² ECE 211	Circuit Analysis II	3

Total **6**

Fall Year 3

SIUE Course		Hours
ECE 282	Digital Systems Design	3
ME 356	Dynamic Systems Modeling	3
ME 354	Numerical Simulation	3
MRE 380	Design of Machine Elements	3
MATH 321	Linear Algebra	3
³ IE 106	³ Engineering Problem Solving	3

Total **18**

Spring Year 3

SIUE Course		Hours
MRE 358	Introduction to Mechatronics	3
MRE 320	Sensors and Actuators	3
⁴ ME 450	Automatic Control	3
ECE 381	Microcontroller	3
PHIL 323	Engr. Ethics & Professionalism	3

Total **15**

Fall Year 4

SIUE Course		Hours
MRE 454	Robotics, Dynamics & Controls	3
MRE 480	Design in Mechatronic & Robotics I	3
MRE XXX	MRE Elective I	3
IE 345	Engineering Economic Analysis	3
IS/EGC	Interdisciplinary Studies	3

Total **15**

Spring Year 4

SIUE Course		Hours
MREXXX	MRE Elective II	3
MRE 477	Comp. Integ. Manufac. Systems	3
MRE 481	Design in Mechatronic & Robotics II	2
EH	Health Experience	1
STAT 380	Statistics for Applications	3

Total **12**

Bachelor of Science Total **129**

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

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.*