

B.S. Mechatronics

Freshman (1st) Year - Fall Semester		2024
MATH-111	College Algebra (Every)	3
ENGL-110	First-Year Composition I (Every)	3
EGNR-101	Intro. to Engineering (Fall)	2
EGME-141	Solid Modeling (Every)	3
CHEM-108	Applied Chemistry (Every)	3
CHEM-109	Applied Chemistry Lab (Every)	1
		15

Freshman (1st) Year - Spring Semester		2025
MATH-131	College Trigonometry (Every)	3
ENGL-111	First-Year Composition II (Every)	3
EGEE-125	Digital Fundamentals (Spring)	4
EGRS-105	Robotics Applications & Trends (Spring)	1
EGME-110	Manufacturing Processes (Spring)	3
		14

Sophmore (2nd) Year - Fall Semester		2025
MATH-112	Calculus for Bus. & Life Sci. (Every)	4
EGNR-140	Linear Algebra Num. App. for Eng. (Every)	2
PHYS-221	Principles of Physics I (Fall)	4
EGRS-215	Introduction to Robotics (Fall)	2
	Communication Elective	3
		15

Sophmore (2nd) Year - Spring Semester		2026
EGNR-245	Calculus App. for Tech. (Even Spring)	3
EGNR-265	C Programming (Every)	3
MATH-207	Principles of Statistical Methods (Every)	3
	Humanities Elective	3
	Free Elective	4
		16

Junior (3rd) Year - Fall Semester		2026
EGET-270	Applied Electricity (Even Fall)	4
EGRS-365	Programmable Logic Controllers (Every)	3
EGRS-380	Robotics Technology (Fall)	2
EGRS-381	Robotics Technology Lab (Every)	1
EGMT-225	Statics & Strength of Materials (Even Fall)	4
	Social Science Elective	3
		17

Junior (3rd) Year - Spring Semester		2027
EGET-275	Applied Electronics (Odd Spring)	4
EGRS-325	Industrial Control Systems (Odd Spring)	3
CSCI-265	Intro. to Artificial Intelligence (Spring)	3
	Technical/Systems Integration Elective	4
	Cultural Diversity Elective	3
		17

Senior (4th) Year - Fall Semester		2027
EGNR-491*	Engineering Design Project I (Fall)	3
EGRS-480	Manufacturing Automation (Fall)	3
EGRS-481	Manufacturing Automation Lab (Every)	1
EGRS-235	Industry 4.0 (Odd Fall)	4
	Technical/Systems Integration Elective	3
		14

Senior (4th) Year - Spring Semester		2028
EGNR-495*	Engineering Design Project II (Spring)	3
EGRS-375	Cyber Physical Sys. & Security (Even Spring)	3
ECON-302	Managerial Economics (Even Spring)	4
	Technical/Systems Integration Elective	3
	Humanities Elective	3
		16

Bolded courses require a grade of C or better for the degree

Minimum Total Credits: 124

General Technical Electives (7 credits minimum)

CSCI	105, 221 or higher
EGEE	250, 300 or higher
EGME	240 or higher
EGMT	216 or higher
EGNR	261 or higher
EGRS	300 or higher

Systems Integration Electives (3 credits minimum)

EGEE-355	Microcontroller Systems (Even Spring)	4
EGRS-372	Mobile Robotics (Even Spring)	4
EGRS-430	Sys. Int. and Machine Vision (Fall)	4

***Senior Sequence Options (Discuss with Advisor)**

- Industrial** EGNR-491 & EGNR-495 as shown
- Co-Op** EGNR-250, EGNR-450, EGNR-451, & EGNR-491
- Research** EGNR-260, EGNR-460, & EGNR-461