

B.S. Robotics Engineering

Freshman (1st) Year - Fall Semester		2024
MATH-151	Calculus I (Every)	4
ENGL-110	First-Year Composition I (Every)	3
EGNR-101	Intro. to Engineering (Fall)	2
CHEM-115	General Chemistry (Every)	5
EGME-141	Solid Modeling (Every)	3
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Freshman (1st) Year - Spring Semester		2025
MATH-152	Calculus II (Every)	4
ENGL-111	First-Year Composition II (Every)	3
EGNR-140	Linear Algebra Num. App. for Eng. (Every)	2
EGEE-125	Digital Fundamentals (Spring)	4
EGRS-105	Robotics Applications & Trends (Spring)	1
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Sophmore (2nd) Year - Fall Semester		2025
MATH-251	Calculus III (Every)	4
PHYS-231	Applied Physics for Eng. and Sci. I (Fall)	4
EGEM-220	Statics (Every)	3
EGRS-215	Introduction to Robotics (Fall)	2
	Communication Elective	3
		16

Sophmore (2nd) Year - Spring Semester		2026
MATH-310	Differential Equations (Every)	3
PHYS-232	App. Physics for Eng. and Sci. II (Spring)	4
EGNR-265	C Programming (Every)	3
EGEE-210	Circuit Analysis (Every)	4
	Social Science Elective	3
		17

Junior (3rd) Year - Fall Semester		2026
MATH-308	Probability and Math. Statistics (Fall)	3
EGNR-340	Numerical Methods for Eng. (Every)	1
EGRS-365	Programmable Logic Controllers (Every)	3
	Technical Elective	3
	Support Elective	3
	Cultural Diversity Elective	3
		16

Junior (3rd) Year - Spring Semester		2027
EGRS-381	Robotics Technology Lab (Every)	1
EGRS-385	Robotics Engineering (Spring)	3
EGRS-305	Collab. Robotics & Safety (Odd Spring)	3
	Technical Elective	3
	Humanities Elective	3
	Free Elective	3
		16

Senior (4th) Year - Fall Semester		2027
EGNR-491*	Engineering Design Project I (Fall)	3
EGRS-460	Control Systems (Fall)	4
EGRS-430	Sys. Int. and Machine Vision (Fall)	4
	Humanities Elective	3
	Free Elective	1
		15

Senior (4th) Year - Spring Semester		2028
EGNR-495*	Engineering Design Project II (Spring)	3
EGRS-435	Automated Manufacturing Sys. (Spring)	2
EGRS-481	Manufacturing Automation Lab (Every)	1
EGRS-372	Mobile Robotics (Even Spring)	4
	Social Science Elective	3
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Bolded courses require a grade of C or better for the degree

Minimum Total Credits: 124

General Technical Electives (6 credits minimum)

CSCI	281 or higher
EGEE	250 or higher
EGEM	320
EGME	225 or higher
EGNR	261 or higher
EGRS	461

Support Electives (3 credits minimum)

BUSN	231 or higher
CSCI	201 or higher
ECON	302 or higher
EGME	110
MATH	215 or higher
MGMT	280 or higher
Any course from technical electives	

***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