LAKE SUPERIOR STATE UNIVERSITY

School of Engineering & Technology

B.S. Mechanical 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
EGME-141	Solid Modeling (Every)	3
	Humanities Elective	3
		15

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
CHEM-115	General Chemistry (Every)	5
EGME-110	Manufacturing Processes (Spring)	3
		17

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
EGNR-265	C Programming (Every)	3
	Social Science Elective	3
		17

Sophmore (2nd) Year - Spring Semester		2026
MATH-310	Differential Equations (Every)	3
PHYS-232	App. Physics for Eng. and Sci. II (Spring)	4
EGME-225	Mechanics of Materials (Spring)	3
EGME-275	Engineering Materials (Spring)	3
EGME-276	Stength of Materials Lab (Spring)	1
	Concentration/Technical 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
EGEM-320	Dynamics (Fall)	3
EGME-350	Machine Design (Fall)	4
EGEE-210	Circuit Analysis (Every)	4
		15

Junior (3rd) Year - Spring Semester		2027
EGME-337	Thermodynamics (Spring)	4
EGME-338	Fluid Mechanics (Spring)	3
	Concentration/Technical Elective	3
	Concentration/Technical Elective	3
	Communication Elective	3
		16

Senior (4th) Year - Fall Semester		2027
EGNR-491*	Engineering Design Project I (Fall)	3
EGRS-460	Control Systems (Fall)	4
EGME-431	Heat Transfer (Fall)	3
EGME-432	Thermal-Fluids Lab (Fall)	2
	Concentration/Technical Elective	4
		16

Senior (4th) Year - Spring Semester		2028
EGNR-495*	Engineering Design Project II (Spring)	3
	Concentration/Technical Elective	4
	Humanities Elective	3
	Social Science Elective	3
	Cultural Diversity Elective	3
		16

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

Minimum Total Credits: 129

General Technical Electives (17 credits minimum)

EGME	240, 310, 415, 425, 442
EGNR	261, 361, 310, 346, 490
EGMT	216
EGEE	280, 310, 330, 345, 411
EGRS	215, 305, 325, 365, 372, 385 & 381, 430, 435 & 481, 461

At least two courses must be at the 400-level
At most two courses can be at the 200-level

***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

Robotics & Automation Concentration		17
EGRS-381	**Robotics Technology Lab (Every)**	1
EGRS-385	**Robotics Engineering (Spring)**	3
EGRS-430	**Sys. Int. and Machine Vision (Fall)**	4
EGRS-435	**Automated Manufacturing Sys. (Spring)**	2
EGRS-481	**Manufacturing Automation Lab (Every)**	1
EGRS-365	**Programmable Logic Controllers (Every)**	3
	Technical Elective	3

Vehicle Systems Concentration		18
EGME-240	**Assembly Modeling and GD&T (Spring)**	3
EGME-310	**Vehicle Develop. & Testing (Even Fall)**	2
EGME-415	**Vehicle Dynamics (Odd Spring)**	2
EGME-425	**Vibrations & Noise Control (Even Spring)**	4
EGME-442	**Finite Element Analysis (Odd Spring)**	3
EGEE-280	**Intro. to Signal Processing (Fall)**	4

Updated: 6/24/2024

This plan of study is a guide and not the offical list of requirements