

**BACHELOR OF SCIENCE IN INDUSTRIAL ENGINEERING
CURRICULUM GUIDE - CLASS OF 2025**

Sample Only – Actual Curriculum Sequence May Deviate from Sample

	FALL	SPRING	SUMMER 1	SUMMER 2
Year 1	CHEM1151 General Chem. for Engrs. 4 CHEM1153 Recitation for CHEM1151 0 ENGW1111 First Year Writing 4 GE1000 Intro. to Eng. 1 GE1501 Cornerstone Eng'g. 1 4 MATH1341 Calculus 1 for Engrs. 4	GE1502 Cornerstone of Eng'g. 2 4 MATH1342 Calculus 2 for Engrs. 4 PHYS1151 Physics 1 for Engrs. 3 PHYS1152 Physics 1 Lab 1 PHYS1153 ILS for PHYS1151 1 Elective General Elective 4	Vacation	Vacation
Year 2 AA	IE2310 Intro Ind. Eng'g 4 IE2311 Recitation for IE2310 0 IE3425 Eng'g Database 4 IE3426 Recitation for IE3425 0 MATH2321 Calculus 3 for Engrs. 4 ***Elective Science Elective 5	ENCP2000 Intro to Eng'g, Co-op 1 IE3412 Recitation for IE2310 0 IE4512 Eng'g Economy 4 MATH2341 Diff. Eq./ Lin. Alg. 4 Elective General Elective 4	Vacation	Co-op
Year 2 BA	ENCP2000 Intro to Eng'g, Co-op 1 IE2310 Intro Ind. Eng'g 4 IE2311 Recitation for IE2310 0 IE3425 Eng'g Database 4 IE3426 Recitation for IE3425 0 MATH2321 Calculus 3 for Engrs. 4 ***Elective Science Elective 5	Co-op	Co-op	Vacation
Year 3 AA	Co-op	**ENGW3302 Adv. Writing for Prof. 4 IE4510 Simulation Mod. & An. 4 IE4515 Operations Research 4 IE4516 Quality Assurance 4	Elective General Elective 4 Elective General Elective 4	Co-op
Year 3 BA	**ENGW3302 Adv. Writing for Prof. 4 *IE3412 Eng'g Prob. Stat. 4 IE4512 Eng'g Economy 4 MATH2341 Diff. Eq./ Lin. Alg. 4	Co-op	Co-op	Elective General Elective 4 Elective General Elective 4
Year 4 AA	Co-op	ENCP3000 Prof. Issues In Eng'g, 1 IE4520 Stochastic Modeling 4 IE4525 Logistics & Supply Chain 4 IE4530 Mfg. Sys. & Techniques 4 IE4531 Lab for IE4530 1 Elective Technical Elective 4	MEIE4701 Capstone Design 1 1 Elective General Elective 4 Elective General Elective 4	Co-op
Year 4 BA	ENCP3000 Prof. Issues in Eng'g, 1 IE4510 Simulation Mod. & An. 4 IE4515 Operations Research 4 IE4516 Quality Assurance 4 IE4530 Mfg. Sys. & Techniques 4 IE4531 Lab for IE4530 1	Co-op	Co-op	Elective General Elective 4 Elective General Elective 4
Year 5 AA	Co-op	IE4522 Human Machine Systems 4 IE4523 Lab for IE4522 1 MEIE4702 Capstone Design 2 5 Elective Technical Elective 4 Elective General Elective 4		
Year 5 BA	IE4520 Stochastic Modeling 4 IE4525 Logistics & Supply Chain 4 MEIE4701 Capstone Design 1 1 Elective General Elective 4 Elective Technical Elective 4	IE4522 Human Machine Systems 4 IE4523 Lab for IE4522 1 MEIE4702 Capstone Design 2 5 Elective Technical Elective 4 Elective General Elective 4		

Revised 5/11/20

*[MATH3081](#) is an acceptable substitution for IE3412. The substitution is recommended for students minoring in Mathematics.

**[ENGW3315](#) is an acceptable substitution.

NUPath Requirements: Interpreting Culture (IC), Societies and Institutions (SI), Differences and Diversity (DD) and Integration Experience (EX) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements and should use General Electives to do so.

Engineering Technical Elective - 2 required - Any IE, ME, MEIE, EMGT, OR, EECE, CIVE, or CHME that is not part of the Industrial Engineering core curriculum.

Electives may be interchanged.

[Please consult with your Academic Advisor, found here.](#)

Degree requirements can be found in the academic catalog and DARS provides a degree audit for students.

***Science Elective

Complete one of the following:

PHYS 1155 Physics for Engineering 2 and PHYS 1156 Lab for PHYS 1155 and PHYS 1157 Interactive Learning Seminar for PHYS 1155
CHEM 1214 General Chemistry 2 and CHEM 1215 Lab for CHEM 1214 and CHEM 1216 Recitation for CHEM 1214
CHEM 2311 Organic Chemistry 1 and CHEM 2312 Lab for CHEM 2311 and CHEM 2319 Recitation for CHEM 2311
BIOL 1115 General Biology 1 for Engineers and BIOL 1116 Lab for BIOL 1115
BIOL 2217 Integrated Anatomy and Physiology 1 and BIOL 2218 Lab for BIOL 2217