

**BACHELOR OF SCIENCE IN INDUSTRIAL ENGINEERING  
CURRICULUM GUIDE - CLASS OF 2024**

*Sample Only – Actual Curriculum Sequence May Deviate from Sample*

	FALL	SPRING	SUMMER 1	SUMMER 2
Year 1	<a href="#">CHEM1151</a> General Chem. for Engrs. 4	<a href="#">GE1502</a> Cornerstone of Eng'g. 2 4	Elective General Elective 4	Vacation
	<a href="#">CHEM1153</a> Recitation for CHEM1151 0	<a href="#">MATH2321</a> Calculus 3 for Engrs. 4	Elective General Elective 4	
	<a href="#">ENGW1111</a> First Year Writing 4	<a href="#">PHYS1151</a> Physics 1 for Engrs. 3		
	<a href="#">GE1000</a> Intro. to Eng. 1	<a href="#">PHYS1152</a> Physics 1 Lab 1		
	<a href="#">GE1501</a> Cornerstone Eng'g. 1 4	<a href="#">PHYS1153</a> ILS for PHYS1151 1		
	<a href="#">MATH1342</a> Calculus 2 for Engrs. 4	Elective General Elective 4		
Year 2 AA	<a href="#">IE2310</a> Intro Ind. Eng'g 4	<a href="#">*IE3412</a> Eng'g Prob. Stat. 4	Elective General Elective 4	Co-op
	<a href="#">IE2311</a> Recitation for IE2310 0	<a href="#">IE4512</a> Eng'g Economy 4	Elective General Elective 4	
	<a href="#">IE3425</a> Eng'g Database 4	<a href="#">ENCP2000</a> Intro to Eng'g, Co-op 1		
	<a href="#">IE3426</a> Recitation for IE3425 0	Elective General Elective 4		
	<a href="#">MATH2341</a> Diff. Eq./ Lin. Alg. 4	Elective General Elective 4		
	***Elective Science Elective 5			
Year 2 BA	<a href="#">ENCP2000</a> Intro to Eng'g, Co-op 1			* <a href="#">MATH3081</a> Prob. And Stat. 4 Elective General Elective 4
	<a href="#">IE2310</a> Intro Ind. Eng'g 4			
	<a href="#">IE2311</a> Recitation for IE2310 0			
	<a href="#">IE3425</a> Eng'g Database 4	Co-op	Co-op	
	<a href="#">IE3426</a> Recitation for IE3425 0			
	<a href="#">MATH2341</a> Diff. Eq./ Lin. Alg. 4			
Year 3 AA	** <a href="#">ENGW3302</a> Adv Writing in the Tech Prof (to be taken online) 4	<a href="#">ENCP3000</a> Prof. Issues in Eng'g, 1	<a href="#">MEIE4701</a> Capstone Design 1 1	Co-op
		<a href="#">IE4510</a> Simulation Mod. & An. 4	Elective Technical Elective 4	
	Co-op	<a href="#">IE4515</a> Operations Research 4	Elective Technical Elective 4	
		<a href="#">IE4516</a> Quality Assurance 4		
		<a href="#">IE4530</a> Mfg. Sys. & Techniques 4		
		<a href="#">IE4531</a> Lab for IE4530 1		
Year 3 BA	<a href="#">ENCP3000</a> Prof. Issues in Eng'g, 1	** <a href="#">ENGW3302</a> Adv Writing in the Tech Prof (to be taken online) 4		Elective General Elective 4 Elective General Elective 4
	<a href="#">IE4510</a> Simulation Mod. & An. 4			
	<a href="#">IE4515</a> Operations Research 4			
	<a href="#">IE4516</a> Quality Assurance 4	Co-op	Co-op	
	<a href="#">IE4530</a> Mfg. Sys. & Techniques 4			
	<a href="#">IE4531</a> Lab for IE4530 1			
Year 4 AA	Co-op	<a href="#">IE4520</a> Stochastic Modeling 4		
		<a href="#">IE4522</a> Human Machine Systems 4		
		<a href="#">IE4523</a> Lab for IE4522 1		
		<a href="#">IE4525</a> Logistics & Supply Chain 4		
		<a href="#">MEIE4702</a> Capstone Design 2 5		
Year 4 BA	<a href="#">IE4512</a> Eng'g Economy 4	<a href="#">IE4522</a> Human Machine Systems 4		
	<a href="#">IE4520</a> Stochastic Modeling 4	<a href="#">IE4523</a> Lab for IE4522 1		
	<a href="#">IE4525</a> Logistics & Supply Chain 4	<a href="#">MEIE4702</a> Capstone Design 2 5		
	<a href="#">MEIE4701</a> Capstone Design 1 1	Elective Technical Elective 4		
	Elective Technical Elective 4	Elective General Elective 4		

Revised 5/11/20

Students will need to have Advanced Standing Credit (such as AP, IB or college credit) for Math 1341 Calculus 1 - see advisor

Course selection will be determined in consultation with your first-year advisor. Students are encouraged to use AP credit and transfer credits obtained prior to coming to Northeastern to take advantage of the 4-year, 2-coop program.

\*[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.

**General Electives:** 7 required - Any 4 SH course that is not remedial or repetitive.

**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:**

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