

BACHELOR OF SCIENCE IN INDUSTRIAL ENGINEERING - 4 YEAR 2 CO-OP PROGRAM
PATTERN OF ATTENDANCE - CLASS OF 2023

Sample Only – Actual Curriculum Sequence May Deviate from Sample

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

5/24/2016
 11/1/2016
 2/3/2017
 4/10/2017
 7/13/2017
 2/28/2018
 4/2/2019

You will need to have AP credit for Calc. AB (MATH1341 - Calculus 1 - 4 SH) - 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 for engineering majors.

NUpath Requirements through General Electives- NUpath requirements, Interpreting Culture (IC), Societies and Institutions (SI) and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements, and if these are not fulfilled in engineering courses, should use General Electives to do so. General Electives are academic, non-remedial, non-repetitive courses.

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.](#)

The registrar's website provides a listing of degree requirements and the DARS system provides a degree audit utility 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 1117 Integrated Anatomy and Physiology 1 and BIOL 1118 Lab for BIOL 1117