

**BS IN INDUSTRIAL ENG'G./MS IN ENERGY SYSTEMS
CURRICULUM OUTLINE - CLASS OF 2023**

Sample Only – Actual Curriculum Sequence May Deviate from Sample

	FALL	SPRING	SUMMER 1	SUMMER 2
Freshman Year 1	CHEM1151 General Chem. for Engrs. 4	MATH1342 Calculus 2 for Engrs. 4	Vacation	Vacation
	CHEM1153 Recitation for CHEM1151 0	GE1502 Cornerstone Eng'g. 2 4		
	GE1000 Intro to Eng'g. 1	PHYS1151 Physics 1 Engrs. 3		
	GE1501 Cornerstone Eng'g. 1 4	PHYS1152 Physics 1 Lab 1		
	MATH1341 Calculus 1 for Engrs. 4	PHYS1153 ILS for PHYS1151 1		
	ENGW1111 College Writing 4	Elective General Elective 4		
Year 2 AA	IE2310 Intro Ind. Eng'g 4	*IE3412 Eng'g Prob. Stat. 4	Vacation	Co-op
	IE2311 Recitation for IE2310 0	IE4512 Eng'g Economy 4		
	IE3425 Eng'g Database 4	MATH2341 Diff. Eq./ Lin. Alg. 4		
	IE3426 Recitation for IE3425 0	MEIE2000 Intro to Eng'g, Co-op 1		
	MATH2321 Calculus 3 for Engrs. 4	Elective General Elective 4		
	***Elective Science Elective 5			
Year 2 BA	IE2310 Intro Ind. Eng'g 4	Co-op	Co-op	Vacation
	IE2311 Recitation for IE2310 0			
	IE3425 Eng'g Database 4			
	IE3426 Recitation for IE3425 0			
	MATH2321 Calculus 3 for Engrs. 4			
	MEIE2000 Intro to Eng'g, Co-op 1			
	***Elective Science Elective 5			
Year 3 AA	Co-op	IE4510 Simulation Mod. & An. 4	Elective General Elective 4	Co-op
		IE4515 Operations Research 4		
		IE4516 Quality Assurance 4		
		Elective Technical Elective 1 4		
Year 3 BA	*IE3412 Eng'g Prob. Stat. 4	Co-op	Co-op	**ENGW3302 Adv. Writing for Prof. 4
	IE4512 Eng'g Economy 4			Elective General Elective 4
	MATH2341 Diff. Eq./ Lin. Alg. 4			
	Elective Technical Elective 1 4			
Year 4 AA	Co-op	ACCT6200 Financial Reporting 1 3	EMGT6225 Economic Dec. Making 4	**ENGW3302 Adv. Writing for Prof. 4
		IE4520 Stochastic Modeling 4	Graduate Elective 4	Graduate Elective 4
		IE4525 Logistics & Supply Chain 4	MEIE4701 Capstone Design 1 1	
		MEIE3000 Prof. Issues In Eng'g, 1		
		ME6200 Math Methods for Eng. 1 4		
Year 4 BA	IE4510 Simulation Mod. & An. 4	ACCT6200 Financial Reporting 1 3	EMGT6225 Economic Dec. Making 4	Graduate Elective General Elective
	IE4515 Operations Research 4	ME6200 Math Methods for Eng. 1 4	Graduate Elective 4	
	IE4516 Quality Assurance 4	Elective Technical Elective 2 4	Elective General Elective 4	
	MEIE3000 Prof. Issues in Eng'g, 1	IE4530 Mfg. Sys. & Techniques 4		
	ENSY5000 Fund Energy Systems Int 4	IE4531 Lab for IE4530 1		
Year 5 AA	ENSY5000 Fund Energy Systems Int 4	Graduate Elective 4		
	ACCT6201 Financial Reporting 2 1.5	Graduate Elective 4		
	FINA6200 Val. Crtn thru Fin. Dec. 3	IE4522 Human Machine Systems 4		
	IE4530 Mfg. Sys. & Techniques 4	IE4523 Lab for IE4522 1		
	IE4531 Lab for IE4530 1	MEIE4702 Capstone Design 2 5		
	Elective Technical Elective 2 4			
Year 5 BA	IE4520 Stochastic Modeling 4	Graduate Elective 4		
	IE4525 Logistics & Supply Chain 4	Graduate Elective 4		
	MEIE4701 Capstone Design 1 1	IE4522 Human Machine Systems 4		
	ACCT6201 Financial Reporting 2 1.5	IE4523 Lab for IE4522 1		
	FINA6200 Val. Crtn thru Fin. Dec. 3	MEIE4702 Capstone Design 2 5		

5/27/2016 7/13/2017

2/8/2017 2/28/2018

3/8/2017

4/10/2017

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

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

NU path 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 Electives: 2 required - any course from the following disciplines that is not a required course in the IE curriculum: IE, ME, MEIE, EMGT, OR, EECE, CIVE, CHME or CSYE

Electives may be interchanged. Please consult with your advisor : Joy Erb - 220 Snell, 617-373-2154, j.erb@neu.edu

Notes:

Students will be required to meet with an undergraduate advisor to petition to enter the program.

Students are encouraged to meet with their financial aid counselor to review any financial questions.

4 semesters of coursework at Northeastern University must be completed with a minimum GPA of 3.2 to join the BS/MS program.

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*Students can submit "Petition for a Reduced Course Load" to be billed per credit.

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 1 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