

**BS/MS IN INDUSTRIAL ENGINEERING  
CURRICULUM OUTLINE - CLASS OF 2021**

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

	FALL	SPRING	SUMMER 1	SUMMER 2
Freshman Year 1	MATH1341 Calculus 1 for Engrs. 4	MATH1342 Calculus 2 for Engrs. 4	Vacation	Vacation
	CHEM1151 General Chem. for Engrs. 4	PHYS1151 Physics 1 Engrs. 3		
	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 4			
Year 2 AA	MATH2321 Calculus 3 for Engrs. 4	MATH2341 Diff. Eq./ Lin. Alg. 4	Vacation	Co-op
	IE2310 Intro Ind. Eng'g 4	*IE3412 Eng'g Prob. Stat. 4		
	IE2311 Recitation for IE2310 0	IE4512 Eng'g Economy 4		
	IE3425 Eng'g Database 4	Elective General Elective 4		
	IE3426 Recitation for IE3425 0	MEIE2000 Intro to Eng'g, Co-op 1		
***Elective Science Elective 5				
Year 2 BA	MATH2321 Calculus 3 for Engrs. 4	Co-op	Co-op	Vacation
	IE2310 Intro Ind. Eng'g 4			
	IE2311 Recitation for IE2310 0			
	IE3425 Eng'g Database 4			
	IE3426 Recitation for IE3425 0			
***Elective Science Elective 5				
MEIE2000 Intro to Eng'g, Co-op 1				
Year 3 AA	Co-op	IE4516 Quality Assurance 4	Vacation	Co-op
		IE4515 Operations Research 4		
		IE4510 Simulation Mod. & An. 4		
		Elective Technical Elective 1 4		
Year 3 BA	MATH2341 Diff. Eq./ Lin. Alg. 4	Co-op	Co-op	**ENGW3302 Adv. Writing for Prof. 4
	*IE3412 Eng'g Prob. Stat. 4			Elective General Elective 4
	IE4512 Eng'g Economy 4			
	Elective Technical Elective 1 4			
Year 4 AA	Co-op	IE4525 Logistics & Supply Chain 4	MEIE4701 Capstone Design 1 1	**ENGW3302 Adv. Writing for Prof. 4
		IE4520 Stochastic Modeling 4	Graduate Course 4	Graduate Course 4
		MEIE3000 Prof. Issues in Eng'g, 2-Graduate Course 4	Elective General Elective 4	
		Graduate Course 4		
Year 4 BA	IE4516 Quality Assurance 4	2-Graduate Course 4	*Graduate Course 4	*Graduate Course 4
	IE4515 Operations Research 4	Graduate Course 4		
	IE4510 Simulation Mod. & An. 4	Elective General Elective 4		
	Elective Technical Elective 2 4	IE4530 Mfg. Sys. & Techniques 4		
MEIE3000 Prof. Issues in Eng'g, 1	IE4531 Lab for IE4530 1			
Year 5 AA	Graduate Course 4	MEIE4702 Capstone Design 2 5		
	Elective Graduate Course 4	IE4522 Human Machine Systems 4		
	Technical Elective 2 4	IE4523 Lab for IE4522 1		
	IE4530 Mfg. Sys. & Techniques 4	3-Graduate Course 4		
	IE4531 Lab for IE4530 1	Graduate Course 4		
MEIE6580 s-Research Seminar 0				
Year 5 BA	IE4525 Logistics & Supply Chain 4	MEIE4702 Capstone Design 2 5		
	IE4520 Stochastic Modeling 4	IE4522 Human Machine Systems 4		
	MEIE6580 s-Research Seminar 0	IE4523 Lab for IE4522 1		
	Graduate Course 4	3-Graduate Course 4		
	Graduate Course 4	Graduate Course 4		
MEIE4701 Capstone Design 1 1				

6/1/2016  
2/8/2017  
4/10/2017

\*\* ENGW3315 is an acceptable substitution for engineering majors.

2-Students who received a grade less than B+ in IE3412 must take IE6200 instead of a graduate elective.

3-Students may replace 8 SH of graduate coursework in the senior year with IE7990 Thesis, or 4 SH with IE7945 Project.

5-Required for students who elect to do Thesis or Project

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 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.

\*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