

**BS IN INDUSTRIAL ENG'G./MS IN ENG'G. MANAGEMENT  
CURRICULUM OUTLINE - CLASS OF 2019**

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

|                            | FALL   | SPRING  | SUMMER 1   | SUMMER 2  |
|----------------------------|--|---|--|---|
| <b>Freshman<br/>Year 1</b> | <a href="#">MATH1341</a> Calculus 1 for Engrs. 4<br><a href="#">CHEM1151</a> General Chem. for Engrs. 4<br><a href="#">CHEM1153</a> Recitation for CHEM1151 0<br><a href="#">GE1000</a> Intro to Eng'g. 1<br><a href="#">GE1110</a> Eng'g. Design 4<br><a href="#">NU Core</a> Arts or Humanities Lvl. 1 4                         | <a href="#">MATH1342</a> Calculus 2 for Engrs. 4<br><a href="#">PHYS1151</a> Physics 1 Engrs. 3<br><a href="#">PHYS1152</a> Physics 1 Lab 1<br><a href="#">PHYS1153</a> ILS for PHYS1151 1<br><a href="#">GE1111</a> Eng'g. Prob. Solv. & Comp. 4<br><a href="#">ENGW1111</a> College Writing 4 | Vacation   | Vacation  |
| <b>Year 2<br/>AA</b>       | <a href="#">MATH2321</a> Calculus 3 for Engrs. 4<br><a href="#">IE2310</a> Intro Ind. Eng'g 4<br><a href="#">IE2311</a> Recitation for IE2310 0<br><a href="#">IE3425</a> Eng'g Database 4<br><a href="#">IE3426</a> Recitation for IE3425 0<br>***Elective Science Elective 5   | <a href="#">MATH2341</a> Diff. Eq./ Lin. Alg. 4<br><a href="#">*IE3412</a> Eng'g Prob. Stat. 4<br><a href="#">IE4512</a> Eng'g Economy 4<br><a href="#">NU Core</a> Social Science Lvl. 1 4<br><a href="#">MEIE2000</a> Intro to Eng'g, Co-op 1   | Vacation   | Co-op   |
| <b>Year 2<br/>BA</b>       | <a href="#">MATH2321</a> Calculus 3 for Engrs. 4<br><a href="#">IE2310</a> Intro Ind. Eng'g 4<br><a href="#">IE2311</a> Recitation for IE2310 0<br><a href="#">IE3425</a> Eng'g Database 4<br><a href="#">IE3426</a> Recitation for IE3425 0<br>***Elective Science Elective 5<br><a href="#">MEIE2000</a> Intro to Eng'g, Co-op 1 | Co-op   | Co-op  | Vacation  |
| <b>Year 3<br/>AA</b>       | Co-op  | <a href="#">IE4516</a> Quality Assurance 4<br><a href="#">IE4515</a> Operations Research 4<br><a href="#">IE4510</a> Simulation Mod. & An. 4<br>Elective Technical Elective 1 4   | Vacation   | Co-op   |
| <b>Year 3<br/>BA</b>       | <a href="#">MATH2341</a> Diff. Eq./ Lin. Alg. 4<br><a href="#">*IE3412</a> Eng'g Prob. Stat. 4<br><a href="#">IE4512</a> Eng'g Economy 4<br>Elective Technical Elective 1 4  | Co-op   | Co-op  | <a href="#">IE4530</a> Mfg. Sys. & Techniques 4<br><a href="#">IE4531</a> Lab for IE4530 1<br><a href="#">**ENGW3302</a> Adv. Writing for Prof. 4 |
| <b>Year 4<br/>AA</b>       | Co-op  | <a href="#">IE4525</a> Logistics & Supply Chain 4<br><a href="#">IE4520</a> Stochastic Modeling 4<br><a href="#">EMGT6225</a> Economic Dec. Making 4<br>2-Graduate Course Prof. Issues in Eng'g, 4<br><a href="#">MEIE3000</a> 1  | <a href="#">MEIE4701</a> Graduate Course 4<br>Capstone Design 1 1<br>Elective General Elective 4 | <a href="#">**ENGW3302</a> Adv. Writing for Prof. 4<br>Graduate Course 4  |
| <b>Year 4<br/>BA</b>       | <a href="#">IE4516</a> Quality Assurance 4<br><a href="#">IE4515</a> Operations Research 4<br><a href="#">IE4510</a> Simulation Mod. & An. 4<br>Elective Technical Elective 2 4<br><a href="#">MEIE3000</a> Prof. Issues in Eng'g, 1   | 2-Graduate Course 4<br><a href="#">EMGT6225</a> Economic Dec. Making 4<br>Elective Social Science Lvl. 1 4<br>Elective General Elective 4   | *Graduate Course 4   | *Graduate Course 4  |
| <b>Year 5<br/>AA</b>       | 3-Graduate Course 4<br><a href="#">OR 6205</a> Deterministic Oper. Res. 4<br>Elective Technical Elective 2 4<br><a href="#">IE4530</a> Mfg. Sys. & Techniques 4<br><a href="#">IE4531</a> Lab for IE4530 1<br><a href="#">MEIE6850</a> Research Seminar 0  | <a href="#">MEIE4702</a> Capstone Design 2 5<br><a href="#">IE4522</a> Human Machine Systems 4<br><a href="#">IE4523</a> Lab for IE4522 1<br><a href="#">EMGT5220</a> Eng'g. Project Mgmt. 4<br>Graduate Course 4   |  |   |
| <b>Year 5<br/>BA</b>       | <a href="#">IE4525</a> Logistics & Supply Chain 4<br><a href="#">IE4520</a> Stochastic Modeling 4<br><a href="#">OR 6205</a> Deterministic Oper. Res. 4<br>3-Graduate Course 4<br><a href="#">MEIE4701</a> Capstone Design 1 1<br><a href="#">MEIE6850</a> Research Seminar 0  | <a href="#">MEIE4702</a> Capstone Design 2 5<br><a href="#">IE4522</a> Human Machine Systems 4<br><a href="#">IE4523</a> Lab for IE4522 1<br><a href="#">EMGT5220</a> Eng'g. Project Mgmt. 4<br>Graduate Course 4   |  |   |

7/3/2014  
7/14/2014  
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 a Thesis, or 4 SH with a Project.

NU Core Elective Requirements: 2 required -(one Arts or Humanities Lvl. 1 Elective AND one Social Science Lvl. 1 Elective)

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:

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| <a href="#">PHYS 1155 Physics for Engineering 1</a><br>and <a href="#">PHYS 1156 Lab for PHYS 1155</a><br>and <a href="#">PHYS 1157 Interactive Learning Seminar for PHYS 1155</a> |
| <a href="#">CHEM 1214 General Chemistry 2</a><br>and <a href="#">CHEM 1215 Lab for CHEM 1214</a><br>and <a href="#">CHEM 1216 Recitation for CHEM 1214</a>                         |
| <a href="#">CHEM 2311 Organic Chemistry 1</a><br>and <a href="#">CHEM 2312 Lab for CHEM 2311</a><br>and <a href="#">CHEM 2319 Recitation for CHEM 2311</a>                         |
| <a href="#">BIOL 1115 General Biology 1 for Engineers</a><br>and <a href="#">BIOL 1116 Lab for BIOL 1115</a>   |
| <a href="#">BIOL 1117 Integrated Anatomy and Physiology 1</a><br>and <a href="#">BIOL 1118 Lab for BIOL 1117</a>   |