

**MECHANICAL AND INDUSTRIAL ENGINEERING DEPARTMENT**  
**BS-MS PROGRAM IN MECHANICAL ENGINEERING - CLASS OF 2022, 2023**

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

|                        | FALL  | SPRING   | SUMMER 1   | SUMMER 2  |
|------------------------|---|--|--|---|
| <b>Freshman 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="#">GE 1501</a> Cornerstone Eng. 1 4<br><a href="#">ENGW1111</a> College Writing 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="#">GE 1502</a> Cornerstone Eng. 2 4<br>Elective General Elective 4  | Vacation   | Vacation  |
| <b>Year 2 (AA)</b>     | <a href="#">MATH2321</a> Calculus 3 for Engrs. 4<br><a href="#">PHYS1155</a> Physics 2 for Engrs. 3<br><a href="#">PHYS1156</a> Physics 2 Lab 1<br><a href="#">PHYS1157</a> ILS for PHYS1155 1<br><a href="#">ME2350</a> Eng'g Mech & Design 4<br>Elective General Elective 4   | <a href="#">MATH2341</a> Diff. Eq./ Lin. Alg. 4<br><a href="#">ME2340</a> Material Science 4<br><a href="#">ME2341</a> Lab for ME2340 1<br><a href="#">ME2355</a> Mech. of Materials 4<br><a href="#">ME2356</a> Lab for ME2355 1<br><a href="#">ME2380</a> Thermodynamics 4<br><a href="#">MEIE2000</a> Intro to Eng'g, Co-op 1 | Vacation   | Co-op   |
| <b>Year 2 (BB)</b>     | <a href="#">MATH2321</a> Calculus 3 for Engrs. 4<br><a href="#">PHYS1155</a> Physics 2 for Engrs. 3<br><a href="#">PHYS1156</a> Physics 2 Lab 1<br><a href="#">PHYS1157</a> ILS for PHYS1155 1<br><a href="#">ME2350</a> Eng'g, Mech. & Design 4<br><a href="#">MEIE2000</a> Intro to Eng'g, Co-op 1<br>Elective General Elective 4 | Co-op  | Co-op  | Vacation  |
| <b>Year 3 (AA)</b>     | Co-op   | <a href="#">EECE2210</a> Elect. Engineering 4<br><a href="#">EECE2211</a> Lab for EECE2210 1<br><a href="#">ME3455</a> Dynamics & Vib. 4<br><a href="#">ME3456</a> Lab for ME3455 1<br><a href="#">ME4508</a> ME Computation 4<br><a href="#">ME4555</a> Sys. Anal. & Control 4  | <a href="#">ME3475</a> Fluid Mech. 4<br><a href="#">*ENGW3302</a> Adv. Writing for Prof. 4 | Co-op   |
| <b>Year 3 (BB)</b>     | <a href="#">MATH2341</a> Diff. Eq./ Lin. Alg. 4<br><a href="#">ME2340</a> Material Science 4<br><a href="#">ME2341</a> Lab for ME2340 1<br><a href="#">ME2355</a> Mech. of Materials 4<br><a href="#">ME2356</a> Lab for ME2355 1<br><a href="#">ME2380</a> Thermodynamics 4  | Co-op  | Co-op  | <a href="#">ME3475</a> Fluid Mech. 4<br><a href="#">*ENGW3302</a> Adv. Writing for Prof. 4            |
| <b>Year 4 (YC)</b>     | Co-op   | <a href="#">ME4505</a> Meas. Anal. Thermal 4<br><a href="#">ME4506</a> Lab for ME4505 1<br>Elective MIE Technical Elective 4<br><a href="#">ME4570</a> Ther. Sys. Anal. Design 4<br><a href="#">MEIE3000</a> Prof. Issues In Eng'g, Graduate Course 1 4  | Vacation   | <a href="#">ME4550</a> ME Design 4<br><a href="#">MEIE4701</a> Capstone 1 1<br>**Science/Math Elect 4 |
| <b>Year 4 (ZC)</b>     | <a href="#">ME3455</a> Dyn. & Vibration 4<br><a href="#">ME3456</a> Lab for ME3455 1<br><a href="#">ME4505</a> Meas. Anal. Thermal 4<br><a href="#">ME4506</a> Lab for ME4505 1<br><a href="#">ME4508</a> ME Comp. 4<br><a href="#">ME4570</a> Ther. Sys. Anal. Design 4  | <a href="#">EECE2210</a> Elec. Engineering 4<br><a href="#">EECE2211</a> Lab for EECE2210 1<br><a href="#">ME4555</a> Syst. Analysis & Control 4<br>Elective MIE Technical Elective 4<br><a href="#">MEIE3000</a> Prof. Issues in Eng'g, Graduate Course 1 4   | Vacation   | <a href="#">ME4550</a> ME Design 4<br><a href="#">MEIE4701</a> Capstone 1 1<br>**Science/Math Elect 4 |
| <b>Year 5 (YC)</b>     | <a href="#">MEIE4702</a> Capstone Design 2 5<br>Graduate Course 2 4<br>Graduate Course 3 4<br>Graduate Course 4 4   | Graduate Course 5 4<br>Graduate Course 6 4<br>Graduate Course 7 4<br>Graduate Course 8 4<br>Research Seminar 0<br><a href="#">MEIE6850</a>   |  |   |
| <b>Year 5 (ZC)</b>     | <a href="#">MEIE4702</a> Capstone Design 2 5<br>Graduate Course 2 4<br>Graduate Course 3 4<br>Graduate Course 4 4   | Graduate Course 5 4<br>Graduate Course 6 4<br>Graduate Course 7 4<br>Graduate Course 8 4<br>Research Seminar 0<br><a href="#">MEIE6850</a>   |  |   |

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

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\*\* Science/Math Elective - Please consult with your academic advisor for the complete list of acceptable courses.

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.

MIE Technical Elective - 1 required - Any ME, IE or EMGT class that is not part of the Mechanical Engineering core curriculum.

Electives may be interchanged. Please consult with your academic advisor :

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Last Names H-N Katherine Bradley - k.bradley@northeastern.edu

Last Names O-Z Laura Kenney - l.kenney@northeastern.edu

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.

ME Graduate Electives: 8 required - Full program must be approved by a graduate advisor.

The registrar's website provides a listing of degree requirements and the DARS system provides a degree audit utility for students.