## Freshman Year

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<th>Fall – 14 hours</th>
<th>Spring – 16 hours</th>
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</table>
| **MATH 1634** Calculus 1 (4)  
Pre-requisite: MATH 1534 or 1433 with a “C” better | **MATH 1734** Calculus 1 (4)  
Pre-requisite: MATH 1634 with a “C” or better |
| **MENG 1101** Introduction to Engineering (1)  
Pre-requisite: None | **MATH Elective** (3)  
***(see Key)*** |
| **MENG 1132** Engineering Graphics (2)  
Pre-requisite: None | **MENG 1202** Solid Modeling (2)  
Pre-requisite: MENG 1132 |
| **PHYS 1624** Mechanics Wave Motion & Heat (4)  
Co-requisite: MATH 1634 | **PHYS 2644** Electricity & Magnetism & Optics (4)  
Co-requisite: MATH 1734; Pre-requisite: PHYS 1624 |
| **CORE** Communications (3)  
*** (see Key) | **ENGL 1143** Academic Research & Writing (3)  
Pre-requisite: Appropriate TSI, ACT, or SAT test scores |

## Sophomore Year

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<th>Fall – 18 hours</th>
<th>Spring - 16 hours</th>
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| **MATH 2534** Calculus 3 (4)  
Pre-requisite: MATH 1734 with a “C” or better | **MATH 3433** Differential Equations (3)  
Pre-requisite: MATH 1734 with a “C” or better |
| **MENG 2104** Electric Circuits (4)  
Pre-requisite: PHYS 2644 | **MENG 2223** Mechanics of Solids (3)  
Pre-requisite: MENG 2113 |
| **MENG 2113** Statics (3)  
Pre-requisites: PHYS 1624 and MATH 1624 | **MENG 2203** Thermodynamics (3)  
Pre-requisite: MATH 2534 |
| **MENG 2133** Engineering Economics (3)  
Pre-requisite: MATH 1634 | **MENG 2204** Electronics (4)  
Pre-requisite: MENG 2104 |
| **CHEM 1143** General Chemistry (3)  
Co-requisite: MATH 1233 or MATH 1534 | **MENG 2213** Dynamics (3)  
Pre-requisite: MENG 2113 |
| **CHEM 1141** General Chemistry Lab (1)  
Co-requisite: CHEM 1143 | *(empty cell)* |

## Junior Year

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<th>Fall – 17 hours</th>
<th>Spring – 16 hours</th>
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| **MENG 3104** Fluid Mechanics (4)  
Co-requisite: MENG 2203 | **MENG 3203** Applied Fluid Power Design (3)  
Pre-requisite: MENG 3104 |
| **MENG 3114** Materials Science (4)  
Pre-requisites: MENG 2223 and CHEM 1143 | **MENG 3233** Mechanisms & Dynamics of Machines (3)  
Pre-requisite: MENG 2213 |
| **MENG 3123** Measurements & Instrumentations (3)  
Pre-requisites: MENG 2204 and MATH 3433 | **MENG 3234** Heat Transfer (4)  
Co-requisite: MENG 3243 |
| **ENGL 3203** Technical Writing (3)  
Pre-requisites: ENGL 1143 & Communications core | **MENG 3243** Computer Aided Engineering (3)  
Pre-requisite: MENG 3234; Pre-requisite: MENG 1202,2223,3104 |
| **CORE** (3)  
*** (see Key) | **CORE** (3)  
*** (see Key) |

## Senior Year

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<th>Fall – 18 hours</th>
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| **MENG 4123** Mathematical Methods for Engineers (3)  
Pre-requisite: MATH 3433 | **MENG 3212** Topics in Engineering Fundamentals (2)  
Pre-requisite: junior or senior level standing |
| **MENG 4134** Machine Elements Design (4)  
Pre-requisites: all 3000 level classes | **MENG 4203** Mechanical Engineering Analysis (3)  
Pre-requisite: MENG 4123 |
| **MENG 4143** Senior Design 1 (3)  
Pre-requisites: all 3000 level classes | **MENG 4243** Senior Design 2 (3)  
Co-requisite: MENG 4143 |
| **MENG 4122** Machine Control Programming (2)  
Pre-requisites: MENG 3203 | **MENG 4253** Control Systems (3)  
Pre-requisite: MENG 4123 |
| **CORE** (3)  
*** (see Key) | **CORE** (3)  
*** (see Key) |
| **CORE** (3)  
*** (see Key) | *(empty cell)* |

Total Number of credits: 129 Hours
Key:
* CORE Communications (1 of the following):
  ENGL 1153 Intro to Reading Writing about Literature (3)
  ENGL 2123 Rhetoric Visuals & Infographics (3)
  ENGL 2203 Intro to Professional Writing (3)
  MCOM 1243 Media Writing & Reporting (3)
  SPCH 1133 Fundamentals of Speech Communication (3)

** Math Elective (1 of the following):
  MATH 2753 Linear Algebra (3)
  STAT 3375 Probability & Statistics (3)

*** CORE (all following classes are required):
  HIST 1133 American History 1 (3)
  HIST 1233 American History 2 (3)
  POLS 1333 American Government 1 (3)
  POLS 1433 American Government 2 (3)
  PHIL 2033 Ethics (3)