

# Mechanical Engineering

## Adequate Math Preparation

### Sample Schedule

#### Year 1

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##### Fall Semester

|  |   |                  |                            |
|--|---|------------------|----------------------------|
| Calculus with Applications or Calculus | ECC: Computer Programming for Engineers | General Elective | First-year Writing Seminar |
|--|---|------------------|----------------------------|

##### January Term

|                          |
|--------------------------|
| ECC: Design & Innovation |
|--------------------------|

##### Spring Semester

|                        |                          |                          |            |
|------------------------|--------------------------|--------------------------|------------|
| Multivariable Calculus | Foundations of Science 1 | Foundations of Science 2 | Colloquium |
| Engineering Ethics     |                          |                          |            |

#### Year 2

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##### Fall Semester

|                        |                          |                          |      |
|------------------------|--------------------------|--------------------------|------|
| Linear Algebra         | Foundations of Science 3 | Foundations of Science 4 | Core |
| Differential Equations |                          |                          |      |

##### January Term

|                  |
|------------------|
| General Elective |
|------------------|

##### Spring Semester

|                 |              |                        |      |
|-----------------|--------------|------------------------|------|
| ECC: Circuits   | ECC: Statics | ECC: Conservation Laws | Core |
| Solid Mechanics | Dynamics     | Fluid Mechanics        |      |

#### Year 3

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##### Fall Semester

|                |                          |                          |            |
|----------------|--------------------------|--------------------------|------------|
| Thermodynamics | Probability & Statistics | Structural Components    | Colloquium |
| Heat Transport | ECC: Numerical Methods   | Machine Component Design |            |

#### January Term

General Elective

#### Spring Semester

Engineering Materials

CAD

Mechanical Engineering  
Elective

Mechanical Engineering  
Elective

General Elective

#### Year 4

##### Fall Semester

Capstone Seminar

Capstone Design I

Instrumentation

Mechanical Engineering  
Elective

Core

##### Spring Semester

Capstone Design II

ECC: Digital logic

Discrete Mathematics

Thermal Energy Systems

Core

#### Course / Credit Key

##### Course Key

GENERAL ELECTIVES

MAJOR: REQUIRED

MAJOR: ELECTIVES

CAPSTONE

CORE

##### Credit Key

1 CREDITS

2 CREDITS

4 CREDITS

5 CREDITS