

# Course Plan

## 2022-2023



**BOISE STATE  
UNIVERSITY**

### Bachelor of Science in Mechanical Engineering

#### FIRST YEAR

##### FIRST SEMESTER

|                 |                                       |               |
|-----------------|---------------------------------------|---------------|
| CHEM 111        | General Chemistry (FN) .....          | 3 cr          |
| CHEM 111L       | General Chemistry Lab (FN) .....      | 1 cr          |
| ENGL 101        | Writing and Rhetoric 1 (FW) .....     | 3 cr          |
| <b>MATH 170</b> | <b>Calculus I (FM)</b> .....          | <b>• 4 cr</b> |
| UF 100          | Foundations of Intellectual Life..... | 3 cr          |
|                 | <b>TOTAL CREDITS .....</b>            | <b>14 cr</b>  |

##### SECOND SEMESTER

|                 |  |
|-----------------|--|
| CS 117          | C++ for Engineers (3 cr) <i>OR</i>     |
| CS 121†         | Computer Science 1 (4 cr) .....        |
| ENGL 102        | Writing and Rhetoric 2 (FW) .....      |
| <b>MATH 175</b> | <b>Calculus II .....</b>               |
| ME 187          | Graphical Communication.....           |
| <b>PHYS 211</b> | <b>Physics 1 w/Calculus (FN) .....</b> |
| PHYS 211L       | Physics 1 w/Calculus Lab (FN) .....    |
|                 | <b>TOTAL CREDITS.....</b>              |

17-18 cr

#### SECOND YEAR

##### FIRST SEMESTER

|               |   |               |
|---------------|---|---------------|
| MATH 275      | Multivariable and Vector Calculus .....                     | 4 cr          |
| <b>ME 201</b> | <b>Engineering Mechanics 1 .....</b>                        | <b>• 3 cr</b> |
| ME 215        | Engineering Communication Lab<br>w/Inspire ME seminar ..... | 1 cr          |
| <b>ME 273</b> | <b>Introduction to Computation<br/>for Engineers .....</b>  | <b>• 2 cr</b> |
| MSE 101       | Introduction to Materials Engineering ....                  | 3 cr          |
| FS            | Foundations of Social Science .....                         | 3 cr          |
|               | <b>TOTAL CREDITS .....</b>                                  | <b>16 cr</b>  |

##### SECOND SEMESTER

|               |  |
|---------------|--|
| MATH 333      | Differential Equations and<br>Matrix Theory..... |
| <b>ME 203</b> | <b>Engineering Mechanics 2 .....</b>             |
| ME 287        | Design 1 w/Lab .....                             |
| UF 200        | Foundations of Ethics and Diversity .....        |
| SCI/MTH       | Science/Math Elective .....                      |
|               | <b>TOTAL CREDITS.....</b>                        |

16 cr

#### THIRD YEAR

##### FIRST SEMESTER

|          |   |              |
|----------|---|--------------|
| ENGR 240 | Electrical and Electronic Circuits .....                                      | 3 cr         |
| MATH 360 | Engineering Statistics <i>OR</i><br>MATH 361† Probability and Statistics..... | 3 cr         |
| ME 301   | Solid Mechanics 1 .....   | 3 cr         |
| ME 301L  | Solid Mechanics 1 Lab.....  | 1 cr         |
| ME 321   | Thermal/Fluids 1 .....  | 3 cr         |
| FH       | Foundations of Humanities .....   | 3 cr         |
|          | <b>TOTAL CREDITS .....</b>  | <b>16 cr</b> |

##### SECOND SEMESTER

|        |                                   |
|--------|-----------------------------------|
| ME 303 | Solid Mechanics 2 .....           |
| ME 313 | Experimental Methods Lab 1 .....  |
| ME 323 | Thermal/Fluids 2 .....            |
| ME 360 | System Modeling and Control ..... |
| ME 387 | Design 2 w/Lab.....               |
| ELEC   | Program Elective A .....          |
|        | <b>TOTAL CREDITS.....</b>         |

16 cr

#### FOURTH YEAR

##### FIRST SEMESTER

|        |   |              |
|--------|---|--------------|
| ME 401 | Engineering Systems and Applications .... | 3 cr         |
| ME 413 | Experimental Methods Lab 2 .....          | 2 cr         |
| ME 487 | Senior Design Project 1 (FF) .....        | 2 cr         |
| ELEC   | Program Elective B .....                  | 3 cr         |
| FS     | Foundations of Social Science 2nd Field . | 3 cr         |
|        | <b>TOTAL CREDITS.....</b>                 | <b>13 cr</b> |

##### SECOND SEMESTER

|        |  |
|--------|--|
| ME 489 | Senior Design Project 2 .....          |
| ELEC   | Program Elective C .....               |
| ELEC   | Program Elective D .....               |
| FA     | Foundations of Arts.....               |
| FC     | Foundations of Oral Communication..... |
|        | <b>TOTAL CREDITS.....</b>              |

14 cr