



## BSME Curriculum Mechanical Engineering Department

### Freshman Year

#### First Semester

|           |                     |           |
|-----------|---------------------|-----------|
| CHEM 1311 | General Chemistry   | 3         |
| CHEM 1111 | Chemistry I Lab     | 1         |
| ENGL 1301 | Grammar & Comp. I   | 3         |
| MATH 2413 | Calculus I          | 4         |
| UNIV 1300 | Freshman Seminar    | 3         |
| ENGR 1200 | Engineering Methods | 2         |
|           | <b>Total</b>        | <b>16</b> |

#### Second Semester

|           |                      |           |
|-----------|----------------------|-----------|
| PHYS 2325 | University Physics I | 3         |
| PHYS 2125 | Physics I Lab        | 1         |
| ENGL 1302 | Grammar & Comp. II   | 3         |
| MATH 2414 | Calculus II          | 4         |
| MENG 1201 | Mechanical Engr. I   | 2         |
| ( )       | Fine Arts Elective   | 3         |
|           | <b>Total</b>         | <b>16</b> |

### Sophomore Year

#### First Semester

|           |                             |           |
|-----------|-----------------------------|-----------|
| PHYS 2326 | University Physics II       | 3         |
| PHYS 2126 | Physics II Lab              | 1         |
| MATH 3404 | Multivariate Calculus       | 4         |
| MATH 3203 | Matrix Methods <sup>2</sup> | 2         |
| ENGR 2301 | Statics                     | 3         |
| MENG 2201 | Mechanical Engr. II         | 2         |
|           | <b>Total</b>                | <b>15</b> |

#### Second Semester

|           |                             |           |
|-----------|-----------------------------|-----------|
| ECON 2302 | Microeconomics <sup>1</sup> | 3         |
| MATH 3305 | Differential Equations      | 3         |
| EENG 3304 | Linear Circuit Analysis     | 3         |
| ENGR 2302 | Dynamics                    | 3         |
| MENG 3319 | Matls. Sci. & Mfg.          | 3         |
|           | <b>Total</b>                | <b>15</b> |

### Junior Year

#### First Semester

|           |                        |           |
|-----------|------------------------|-----------|
| ENGR 3301 | Prob. & Statistics     | 3         |
| MENG 3301 | Thermodynamics I       | 3         |
| MENG 3303 | Dyn. of Machinery      | 3         |
| MENG 3306 | Mechanics of Materials | 3         |
| MENG 3310 | Fluid Mechanics        | 3         |
| MENG 3210 | Mech. Engr. Lab I      | 2         |
|           | <b>Total</b>           | <b>17</b> |

#### Second Semester

|           |                      |           |
|-----------|----------------------|-----------|
| ENGR 3314 | Design Methodology   | 3         |
| MENG 3304 | Thermodynamics II    | 3         |
| MENG 3309 | Mech. Systems Design | 3         |
| MENG 3316 | Heat Transfer        | 3         |
| MENG 3211 | Mech. Engr. Lab II   | 2         |
| ( )       | Humanities Elective  | 3         |
|           | <b>Total</b>         | <b>17</b> |

### Senior Year

#### First Semester

|           |                        |           |
|-----------|------------------------|-----------|
| ENGR 4109 | Senior Seminar         | 1         |
| MENG 4115 | Senior Design I        | 1         |
| MENG 4311 | Electro-Mech. Design   | 3         |
| MENG 4313 | Thermal/Fluid Design   | 3         |
| HIST 1301 | U.S. History I         | 3         |
| POLS 2305 | Intro. American Gov't. | 3         |
| ( )       | Technical Elective     | 3         |
|           | <b>Total</b>           | <b>17</b> |

#### Second Semester

|           |                       |           |
|-----------|-----------------------|-----------|
| MENG 4315 | Senior Design II      | 3         |
| ( )       | Technical Elective    | 3         |
| HIST 1302 | U.S. History II       | 3         |
| POLS 2306 | Intro. Texas Politics | 3         |
| ENGL ( )  | World/European Lit.   | 3         |
|           | <b>Total</b>          | <b>15</b> |

**Program Total: 128 Credits**

<sup>1</sup> ECON 2301 (Macroeconomics) can be substituted for ECON 2302.

<sup>2</sup> MATH 3315 (Linear Algebra and Matrix Theory) can be substituted for MATH 3203.