

# Bachelor of Science in Mechanical Engineering -- 128 Credits

JME-BSE (RG 7276)  
Effective August 2015

## Worlds of Knowledge (RQ 3629)

### Aesthetic and Creative Expression

| Subject | Number | Course Title | CR | Satisfied/Term |
|---------|--------|--------------|----|----------------|
|         |        |              | 3  |                |

### Global History & Culture

| Subject | Number | Course Title | CR | Satisfied/Term |
|---------|--------|--------------|----|----------------|
|         |        |              | 3  |                |

### Societies & Civics

| Subject | Number | Course Title | CR | Satisfied/Term |
|---------|--------|--------------|----|----------------|
|         |        |              | 3  |                |

Each student must take 1 course in each of the following Worlds of Knowledge.

Each student must take two additional "Follow-Up" courses from any of the following Worlds of Knowledge.

The minimum number of courses taken in the Worlds must be 5.  
(No electives may be taken from the World of Science & Nature)

### Follow-Up Courses

| Subject | Number | Course Title | CR | Satisfied/Term |
|---------|--------|--------------|----|----------------|
|         |        |              |    |                |

## Freshman Year Curriculum (RG 7276)

### Freshman Year Curriculum - 1st Term (RQ 3437)

| Complete the following Courses   | CR        | Satisfied/Term |
|----------------------------------|-----------|----------------|
| Chem 0150 General Chem Eng 1     | 3         |                |
| Engcmp 0005 Composition 1        | 3         |                |
| Engr 0017 Intro to Eng Analysis  | 3         |                |
| Engr 0081 Freshman Seminar 1     | 0         |                |
| Math 0221 Analytic Geom & Calc 1 | 4         |                |
| Phys 0150 Physics 1              | 4         |                |
| <b>Requirement Satisfied</b>     | <b>17</b> |                |

### Freshman Year Curriculum - 2nd Term (RQ 3438)

| Complete the following Courses   | CR        | Satisfied/Term |
|----------------------------------|-----------|----------------|
| Chem 0151 General Chem Eng 2     | 3         |                |
| Engr 0018 Intro Eng Computing    | 3         |                |
| Engr 0082 Freshman Seminar 2     | 0         |                |
| Math 0231 Analytic Geom & Calc 2 | 4         |                |
| Phys 0152 Physics for Eng 2      | 4         |                |
| <b>Requirement Satisfied</b>     | <b>14</b> |                |

## Sophomore Year Curriculum (RG 7276)

### Soph Year Curriculum - 3rd Term (RQ 3439)

| Complete the following Courses       | CR        | Satisfied/Term |
|--------------------------------------|-----------|----------------|
| Engr 0022 Materials Structure & Prop | 3         |                |
| Engr 0132 Statics                    | 3         |                |
| Math 0241 Calculus III               | 4         |                |
| Math 1181 Linear Algebra             | 3         |                |
| ME 0024 Intro Mech Engr Design       | 3         |                |
| ME 1085 Dept Seminar                 | 0         |                |
| <b>Requirement Satisfied</b>         | <b>16</b> |                |

### Soph Year Curriculum - 4th Term (RQ 3440)

| Complete the following Courses    | CR        | Satisfied/Term |
|-----------------------------------|-----------|----------------|
| Commrc 0052 Public Speaking       | 3         |                |
| EE 0031 Linear Circuits           | 3         |                |
| Engr 0142 Mechanics of Materials  | 3         |                |
| Math 1271 Differential Equations  | 3         |                |
| ME 0040 Materials & Manufacturing | 3         |                |
| ME 0052 Thermodynamics 1          | 3         |                |
| ME 1085 Dept Seminar              | 0         |                |
| <b>Requirement Satisfied</b>      | <b>18</b> |                |

## Junior Year Curriculum (RG 7276)

(RQ 3441)

### Junior Year Curriculum - 5th Term (RQ 3441)

| Complete the following Courses | CR       | Satisfied/Term |
|--------------------------------|----------|----------------|
| Engr 0152 Rigid Body Dynamics  | 3        |                |
| ME 0071 Fluid Mechanics        | 3        |                |
| ME 1026 Mechanical Design 1    | 3        |                |
| ME 1085 Department Seminar     | 0        |                |
| <b>Requirement Satisfied</b>   | <b>9</b> |                |

(RQ 3442)

### Junior Year Curriculum - 6th Term (RQ 3442)

| Complete the following Courses | CR        | Satisfied/Term |
|--------------------------------|-----------|----------------|
| ME 1013 Dynamic Systems        | 3         |                |
| ME 1027 Mechanical Design 2    | 3         |                |
| ME 1044 Measurements 1         | 3         |                |
| ME 1053 Applied Thermodynamics | 3         |                |
| ME 1085 Dept Seminar           | 0         |                |
| <b>Requirement Satisfied</b>   | <b>12</b> |                |

## Senior Year Curriculum (RG 7276)

### Senior Year Curriculum - 7th Term (RQ 3443)

| Complete the following Courses | CR       | Satisfied/Term |
|--------------------------------|----------|----------------|
| ME 1046 Measurements 2         | 3        |                |
| ME 1054 Heat & Mass Transfer   | 3        |                |
| ME 1095 Professional Practice  | 3        |                |
| ME 1085 Department Seminar     | 0        |                |
| <b>Requirement Satisfied</b>   | <b>9</b> |                |

### Senior Year Curriculum - 8th Term (RQ 3444)

| Complete the following Courses | CR       | Satisfied/Term |
|--------------------------------|----------|----------------|
| ME 1071 Applied Fluids         | 3        |                |
| ME 1085 Department Seminar     | 0        |                |
| ME 1099 Senior Project         | 3        |                |
| <b>Requirement Satisfied</b>   | <b>6</b> |                |

## Electives (RQ 7276)

### Engineering Electives (RQL 3778-10)

| Complete one of the following Courses | CR       | Satisfied/Term |
|---------------------------------------|----------|----------------|
| CE 1105 Materials of Construction     | 3        |                |
| CE 1330 Intro to Structural Analysis  | 3        |                |
| CE 1503 Intro to Environmental Eng    | 3        |                |
| CE 1610 Eng & Sustainable Develop     | 3        |                |
| CE 1811 Principles of Soil Mechanics  | 3        |                |
| CHE 0214 Intro to Chem Proc Design    | 3        |                |
| EE 0445 Prog & Intro to Data Struct   | 3        |                |
| EE 1552 Signals and Systems           | 3        |                |
| EE 1673 Control Systems               | 3        |                |
| EE 1177 Measurement & Indust Cont     | 3        |                |
| EE 1771 Electric Machines             | 4        |                |
| Engr 1103 Engineering Economics       | 3        |                |
| Engr 1115 Engineering Leadership      | 3        |                |
| <b>Requirement Satisfied</b>          | <b>3</b> |                |

### Dynamic Systems Electives (RQL 3778-20)

| Complete one of the following Courses | CR       | Satisfied/Term |
|---------------------------------------|----------|----------------|
| CHE 0510 Intro to Comp Fluid Dynam    | 3        |                |
| EE 1673 Control Systems               | 3        |                |
| EE 1177 Measurements & Indust Con     | 3        |                |
| EE 1771 Electric Machines             | 4        |                |
| ME 1061 Off Road Vehicle Dynamics     | 3        |                |
| <b>Requirement Satisfied</b>          | <b>3</b> |                |

Note: Courses taken under Engineering, Dynamic Systems, or ME Technical Electives cannot be counted in other Elective groups

### ME Technical Electives (RQL 3778-30)

| Complete two of the following Courses | CR       | Satisfied/Term |
|---------------------------------------|----------|----------------|
| CHE 0510 Intro to Comp Fluid Dynam    | 3        |                |
| EE 1177 Measurements Indust Cont      | 3        |                |
| ME 1056 Energy                        | 3        |                |
| ME 1059 Heating, Vent, & Air Cond     | 3        |                |
| ME 1172 CADD/CAE                      | 3        |                |
| ME 1173 Finite Element Methods        | 3        |                |
| Engineering Co-Op (with approval)     | 3        |                |
| <b>Requirement Satisfied</b>          | <b>6</b> |                |

Note: 3 semesters of co-op, along with a paper and presentation count as an ME Technical Elective

### IMPORTANT INFORMATION:

This sheet is an unofficial representation of the major requirements and the information is subject to change. It is not an official record of academic progress and should not be treated as such. Official degree information can only be obtained through the Division Office or the Office of the Registrar.

Updated 3/5/20