## Major in Mechanical Engineering - B.S.M.E.

| University Requirements: |  |  |
| :---: | :---: | :---: |
| See University General Requirements for Baccalaureate degrees (p.40) |  | $\square$ |
| First Year Making Connections Course: | Sem. Hrs. |  |
| ENGR 1402, Concepts of Engineering (See Engineering Core Courses) | - | $\square$ |
| General Education Requirements: | Sem. Hrs. |  |
| See General Education Curriculum for Engineering | 38 | $\square$ |
| Engineering Core Courses: | Sem. Hrs. |  |
| Refer to Engineering Core Courses | 27 | $\square$ |
| Major Requirements: <br> Electives denoted by an asterisk (*) must be chosen from a list of approved electives, which is available from Mechanical Engineering advisors and through the department office. All students must complete at least one thermal/fluid systems stem elective and one mechanical systems stem elective. <br> In addition to the University requirements for all Baccalaureate Degrees, a Bachelor of Science in Mechanical Engineering requires that one of the two following conditions be met: <br> 1. " $C$ " or better in each course in the 56 hour major courses; $\mathbf{O R}$ <br> 2. 2.5 (or greater) grade point average in the 56 hour major courses listed below. | Sem. Hrs. |  |
| CHEM 1023, General Chemistry II | 3 | $\square$ |
| ENGR 2411, Mechanics of Materials Laboratory | 1 | $\square$ |
| ENGR 2413, Mechanics of Materials | 3 | $\square$ |
| ENGR 3423, Dynamics | 3 | $\square$ |
| ENGR 3471, Fluid Mechanics Laboratory | 1 | $\square$ |
| ENGR 3473, Fluid Mechanics | 3 | $\square$ |
| ME 2502, Solid Modeling for Mechanical Engineers | 2 | $\square$ |


| ME 3504, Process Monitoring and Control | 4 | $\square$ |
| :---: | :---: | :---: |
| ME 3513, Mechanical Vibrations | 3 | $\square$ |
| ME 3533, Engineering Thermodynamics II | 3 | $\square$ |
| ME 3613, Control Systems for Mechanical Engineers | 3 | $\square$ |
| ME 4503, Fluid and Thermal Energy Systems | 3 | $\square$ |
| ME 4543, Machine Design | 3 | $\square$ |
| ME 4553, Heat Transfer | 3 | $\square$ |
| ME 4563, Introduction to Manufacturing Processes | 3 | $\square$ |
| ME 4573, Mechanical System Design | 3 | $\square$ |
| ME 4613 Introduction to Mechatronics | 3 | $\square$ |
| PHYS 2044, University Physics II | 4 | $\square$ |
| *ME Electives | 6 | $\square$ |
| Professional Development Elective <br> This elective may be selected outside the Engineering Programs, subject only to advisor's approval. It must make a rational contribution to the student's personal and professional education goals. | 3 | $\square$ |
| Sub-total | 60 | $\square$ |
| Additional Support Course: | Sem. Hrs. |  |
| MATH 4403, Differential Equations | 3 | $\square$ |
| Total Required Hours: | 128 |  |

