## BS in Mechanical Engineering Degree Planning Sheet (2024-2025) 4-Year Plan for Calculus Ready Students



| Students Name: | : <u></u>                      |    |       |          | U N | umber:        |               | Advisor:                     |    |       |          |     |     |
|----------------|--------------------------------|----|-------|----------|-----|---------------|---------------|------------------------------|----|-------|----------|-----|-----|
| Course         | Title                          | CR | Grade | Semester | CS* | TR*           | Course        | Title                        | CR | Grade | Semester | CS* | TR* |
| Year 1 Fall    |                                | 17 |       |          |     |               | Year 1 Spring |                              | 17 |       |          |     |     |
| ENGL 1010      | English Composition I          | 3  |       |          |     |               | ENGL 1020     | English Composition II       | 3  |       |          |     |     |
| ENGR 1010      | Engr Problem Solving           | 3  |       |          |     |               | CIVL 2131     | Statics                      | 3  |       |          |     |     |
| MATH 1910      | Calculus I                     | 4  |       |          |     |               | MATH 1920     | Calculus II                  | 4  |       |          |     |     |
| MECH 1310      | Intro. to Mech. Engr.          | 3  |       |          |     |               | MECH 1314     | Mech. Engr Computing         | 3  |       |          |     |     |
| PHYS 2110      | Sci/Engr. Physics I            | 3  |       |          |     |               | PHYS 2120     | Sci/Engr. Physics II         | 3  |       |          |     |     |
| PHYS 2111      | Sci/Engr. Physics I Lab        | 1  |       |          |     |               | PHYS 2121     | Sci/Engr Physics II Lab      | 1  |       |          |     |     |
| Year 2 Fall 17 |                                |    |       |          |     |               | Year 2 Spring |                              | 15 |       |          |     |     |
| CHEM 1110      | Gen. Chem I                    | 3  |       |          |     |               | EECE 2201     | Circuit Analysis I           | 3  |       |          |     |     |
| CHEM 1111      | Gen. Chem I Lab                | 1  |       |          |     |               | ENGL 3603     | Engr. Communications         | 3  |       |          |     |     |
| MATH 2110      | Calculus III                   | 4  |       |          |     |               | MATH 2120     | Differential Equations       | 3  |       |          |     |     |
| MECH 2318      | Computer Aid Design I          | 3  |       |          |     |               | MECH 2311     | Thermodynamics I             | 3  |       |          |     |     |
| MECH 2320      | Mech. of Materials             | 3  |       |          |     |               | MECH 2321     | Engineering Materials        | 3  |       |          |     |     |
| MECH 2332      | Dynamics                       | 3  |       |          |     |               |               |                              |    |       |          |     |     |
| Year 3 Fall    |                                | 15 |       |          |     |               | Year 3 Spring |                              | 17 |       |          |     |     |
| MECH 3312/21   | Thermo II or Mech of Machines  | 3  |       |          |     |               | MSCI ELEC     | Math/Science Elective        | 3  |       |          |     |     |
| MECH 3319      | Engrg. Econ/Proj Mgmt          | 3  |       |          |     |               | ENGL 2201/2   | Literary Heritage            | 3  |       |          |     |     |
| MECH 3323      | Fund. Of Machine Design        | 3  |       |          |     |               | MECH 3324     | Sys Dyn, Vibrtns, Controls I | 3  |       |          |     |     |
| MECH 3325      | Mechanics of Materials Lab     | 1  |       |          |     |               | MECH 3335     | Fluid Mechanics Lab          | 1  |       |          |     |     |
| MECH 3331      | Fluid Mechanics I              | 3  |       |          |     |               | MECH 3341     | Numerical & Stat Methods     | 3  |       |          |     |     |
| MECH 3351      | Heat Transfer I                | 3  |       |          |     |               | MECH 3355     | Thermo/Heat Transfer Lab     | 1  |       |          |     |     |
|                |                                |    |       |          |     |               | MECH 3361/63  | MECH Design Elective         | 3  |       |          |     |     |
| Year 4 Fall 16 |                                |    |       |          |     | Year 4 Spring |               | 14                           |    |       |          |     |     |
| GEN ED         | Humanities/Fine Arts           | 3  |       |          |     |               | GEN ED        | Humanities/Fine Arts         | 3  |       |          |     |     |
| GEN ED         | Social Science                 | 3  |       |          |     |               | GEN ED        | Social Science               | 3  |       |          |     |     |
| MECH 4300      | Prep. for Prof. Practice       | 1  |       |          |     |               | MECH 4323     | Senior Design II             | 2  |       |          |     |     |
| MECH 4314      | Senior Design I                | 2  |       |          |     |               | MECH ELEC     |                              | 3  |       |          |     | 1   |
| MECH 4335      | Sys Dyn, Vibrtns, Controls Lab | 1  |       |          |     |               | MECH ELEC     |                              | 3  |       |          |     | 1   |
| MECH ELEC      |                                | 3  |       |          |     |               |               |                              |    |       |          |     |     |
| MECH ELEC      |                                | 3  |       |          |     |               |               |                              |    |       |          |     |     |
|                |                                |    |       |          |     |               |               |                              |    |       | •        |     |     |

## **Graduation & General Education Requirements**

- 1. "C-" or better in all required engineering, math, and basic sciences courses
- 2. 12 hours of English with a "C- or better" in ENGL 1010 and 1020
- 3. 6 hours of Humanities and 6 hours of Social Science from the approved list.
- 4. 1 year of American History in High School or 6 hours at U of M do not count towards 128-hour major
- 5. Combined 30 hours of Mathematics and Basic Sciences

- 6. The Undergraduate Catalog used for this degree curriculum is valid for seven (7) years
- 7. CS\* Course Substitution (approval required)/TR\* Transfer Credit (approval required)
- 8. Degree requirements specified in the Undergraduate Catalog take precedence over this representation of that information.