## Suggested Curriculum, Math Placement Score “L” – 8 Semesters

### Printable Version

#### Year 1

<table>
<thead>
<tr>
<th>Autumn - 16 hrs</th>
<th>Spring - 15 hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 1100.01 (Engineering Survey) / 1 hr</td>
<td>MATH 1172 (Engineering Math A) / 5 hr</td>
</tr>
<tr>
<td><strong>Prereq:</strong> A grade of C- or above in 1114, 1151, 1156, 1161.xx, 152.xx, 161.xx, or 161.01H</td>
<td></td>
</tr>
<tr>
<td>MATH 11151 (Calculus) / 5 hr</td>
<td>CHEM 1250 (Gen Chem for Engineers) / 4 hr</td>
</tr>
<tr>
<td><strong>Prereq:</strong> A grade of C- or above in 1148 and 1149, or in 1120 and 1121, or in 1150, or Math Placement L</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 1250 (Mechanics, Thermal, Waves) / 5 hr</td>
<td>ENGR 1182 (Fundamentals of Engr 2) / 2 hr</td>
</tr>
<tr>
<td><strong>Prereq or concur:</strong> Math 1141, 1145, 1156, 1161, 1181H, or 4181H</td>
<td></td>
</tr>
<tr>
<td>ENGR 1181 (Fundamentals of Engr 1) / 2 hr</td>
<td>General Education (Foundations) / 3 hr</td>
</tr>
<tr>
<td><strong>Prereq or concur:</strong> Math 1140 or 1141; or Math 1150 or above</td>
<td></td>
</tr>
<tr>
<td>General Education (Foundations) / 3 hr</td>
<td>GenEd 1201 (Launch Seminar) / 1 hr</td>
</tr>
<tr>
<td>Autumn - 17 hrs</td>
<td>Spring - 18 hrs</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| **MATH 2173 (Engineering Math B) / 3 hr**  
Prereq: 1172 or 1544              | **MATH 2174 (Lin Alg & Diff Eq) / 3 hr**  
Prereq: 2173                      |
| **MECHENG 2010 (Statics) / 2 hr**   | **MECHENG 2020 (Mechanics of Materials) / 3 hr**  
Prereq: 2010 or 2010H             |
| Prereq: Engr 1181 or 1187 or 1281H, and Physics 1250 or 1260, and Math 1151 or 1161 | Prereq: 2010 or 2010H or 2040                                                  |
| **STAT 3450 (Stat Methods for Engineers) / 2 hr**  
Prereq: Math 1152, 1161.xx, 1172, or 1181, or equiv | **MECHENG 2030 (Dynamics) / 3 hr**  
Prereq: 2010 or 2010H or 2040                                                  |
| **ISE 2040 (Engineering Economics) / 2 hr**  
Prereq: Soph standing in Engineering |                                                                                  |
| **MATSCEN 2010 (Intro Engr Materials) / 3 hr**  
Prereq: Physics 1250 or 1260, Math 1151 or 1161, and Chemistry 1210 or 1250 or 1910H  
Approved substitutions: BIOLOGY 1113 + 1114 (4 hours each, 8 hours total), CHEM 2000-level (3 hours or more) or above (as long as not counting as Technical Elective credit), and BIOMEDE 2800 | **MECHENG 2850.01 (Numerical Methods) / 3 hr**  
Enrollment as MechEng-BS student. Prereq: Physics 1251. Prereq or concur: MatScEn 2010.  
Prereq or concur: Math 2174 or 2415, or equiv. |
| **PHYSICS 1251 (E&M, Optics, Modern Phys) / 5 hr**  
Prereq: 1250, 1250H, or 1260; and Math 1141 or 1151 or above; or permission of instructor.  
Concur: Math 1152, 1161, 1172, 1181H, or 4181H | **General Education (Foundations) / 3 hr**                                      |
### Year 3

#### Autumn - 16 hrs

- **ECE 2300 (Circuits) / 3 hr**
  - Prereq: Physics 1251 or 1261, and Math 1172 or 1544 or 2153 or 2162.01 or 2162.02 or 2182H or 4182H, and CPHR 2.0 or above, and enrollment in College of Engineering

- **MECHENG 3260 (System Dynamics) / 3 hr**
  - Enrollment as MechEng-BS student. Pre-req: 2850.01 and 2900, Pre-req or concur: ECE 2300

- **MECHENG 3501 (Thermodynamics) / 3 hr**
  - Enrollment as MechEng-BS student. Pre-req: 2850.01 and 2900, and CHEM 1210 or 1250

- **MECHENG 3670 (Dsgn Analysis Mach Elm 1) / 2 hr**
  - Enrollment as MechEng-BS student. Pre-req: 2850.01 and 2900 and 2020 and 2030

- **MECHENG 3751 (Kinematics & Mech Design) / 2 hr**
  - Enrollment as MechEng-BS student. Pre-req: 2030 and 2900

- General Education (Foundations) / 3 hr

#### Spring - 16 hrs

- **MECHENG 3360 (Sys Integration & Control) / 3 hr**
  - Enrollment as MechEng-BS student. Pre-req: 3260. Pre-req or concur: 3503

- **MECHENG 3503 (Intro to Fluid Mechanics) / 3 hr**
  - Enrollment as MechEng-BS student. Pre-req: 2850.01 and 3501

- **MECHENG 3671 (Dsgn Analysis Mach Elm 2) / 3 hr**
  - Enrollment as MechEng-BS student. Pre-req: 3670 and 3751

- **MECHENG 3870 (Msmts & Data Analysis) / 3 hr**
  - Enrollment as MechEng-BS student. Pre-req: 3260, and STAT 3450 or equiv., and writing course (see advisor for more information). Pre-req or concur: 3503

- General Education (Theme) / 4 hr

### Year 4

#### Autumn - 17.5 hrs

- **MECHENG 4510 (Heat Transfer) / 3 hr**
  - Enrollment as MechEng-BS student. Pre-req: 3503

- **ISE 4500 (Mfg Process Engineering) / 3 hr**
  - Pre-req: MECHENG 3670. Pre-req or concur: MECHENG 3503

- **MECHENG 490X.01 (Capstone Design 1) / 2.5 hr**
  - Enrollment as MechEng-BS student. Pre-req: 3360 and 3671 and 3870. Pre-req or concur: 4510.

- Technical Elective / 3 hr

- Technical Elective / 3 hr

- General Education (Foundations) / 3 hr

#### Spring - 14.5 hrs

- **MECHENG 490X.02 (Capstone Design 2) / 2.5 hr**
  - Enrollment as MechEng-BS student. Pre-req: 490X.01

- **MECHENG 4870 (Multidisciplinary Lab) / 2 hr**
  - Enrollment as MechEng-BS student. Pre-req: 3360 and 3671 and 3870. Pre-req or concur: 4510

- Technical Elective / 3 hr

- Technical Elective / 3 hr

- General Education (Theme) / 4 hr