

# MATERIALS SCIENCE AND ENGINEERING CURRICULUM CHECKLIST

Name: \_\_\_\_\_

Date: \_\_\_\_\_

| Course     | Credits | Course Title                    | Prerequisites/Corequisites          |
|------------|---------|---------------------------------|-------------------------------------|
| CHEM0960   | 3 _____ | Gen. Chem. for Engr. 1          |                                     |
| CHEM0970   | 3 _____ | Gen. Chem. for Engr. 2          | CHEM0960                            |
| MATH0220   | 4 _____ | Anal. Geometry & Calc. 1        |                                     |
| MATH0230   | 4 _____ | Anal. Geometry & Calc. 2        | MATH0220                            |
| MATH0240   | 4 _____ | Anal. Geometry & Calc. 3        | MATH0230                            |
| MATH0280   | 3 _____ | Matrices & Linear Algebra       | MATH0220                            |
| MATH0290   | 3 _____ | Differential Equations          | MATH0230                            |
| PHYS0174   | 4 _____ | Phys. for Sci. & Engr. 1        | <i>MATH0220</i> <sup>1</sup>        |
| PHYS0175   | 4 _____ | Phys. for Sci. & Engr. 2        | PHYS0174, <i>MATH0230</i>           |
| ENGCMP0210 | 3 _____ | Seminar in Composition          |                                     |
| ENGCMP0412 | 3 _____ | Engr. Communication             |                                     |
| _____      | 3 _____ | Humanity Elective               | <u>Student has fulfilled</u>        |
| _____      | 3 _____ | Social Science Elective         | <input type="checkbox"/> Breadth    |
| _____      | 3 _____ | Humanity/Soc. Sci. Elective     | <input type="checkbox"/> Depth      |
| _____      | 3 _____ | Humanity/Soc. Sci. Elective     | <input type="checkbox"/> W-course   |
| _____      | 3 _____ | Communication Skills Elective   |                                     |
| ENGR0011   | 3 _____ | Intro. to Engr. Analysis        |                                     |
| ENGR0012   | 3 _____ | Engr. Computing                 | ENGR0011                            |
| ENGR0135   | 3 _____ | Statics & Mech. of Mater. 1     | MATH0230, PHYS0174                  |
| ENGR0145   | 3 _____ | Statics & Mech. of Mater. 2     | ENGR0135                            |
| _____      | 3 _____ | Engineering Elective            |                                     |
| MEMS0023   | 3 _____ | Intro. to MSE                   | MATH0230, PHYS0174                  |
| MEMS0024   | 3 _____ | Intro. to ME Design             | ENGR0011                            |
| MEMS0031   | 3 _____ | Electrical Circuits             | PHYS0175, <i>MATH0290</i>           |
| MEMS0040   | 3 _____ | Materials & Manufacturing       | MEMS0023                            |
| MEMS0048   | 3 _____ | Thermodynamics of Materials     | PHYS0174, CHEM0960, <i>MATH0290</i> |
| MEMS1010   | 3 _____ | Experimental Methods in MSE     | MEMS0023                            |
| MEMS1011   | 3 _____ | Struct. & Prop. Lab             | MEMS1010                            |
| MEMS1028   | 3 _____ | Mechanical Design 1             | ENGR0145                            |
| MEMS1030   | 3 _____ | Material Selection              | MEMS0023, MEMS1028                  |
| MEMS1043   | 3 _____ | Senior Design Project           | <i>Senior Standing</i>              |
| MEMS1052   | 3 _____ | Heat and Mass Transfer          | MEMS0048                            |
| MEMS1053   | 3 _____ | Struct. of Crystals & Diffract. | MEMS0023                            |
| MEMS1058   | 3 _____ | Electromagnetic Prop. Mater.    | MEMS0023                            |
| MEMS1059   | 3 _____ | Phase Equilibria                | MEMS0023, MEMS0048                  |
| MEMS1063   | 3 _____ | Phase Transformations           | MEMS1053, MEMS1059                  |
| MEMS1070   | 3 _____ | Mech. Behavior of Materials     | MEMS0023, ENGR0145                  |
| MEMS1079   | 3 _____ | Senior Mater. Research Proj.    | <i>Senior Standing</i>              |
| _____      | 3 _____ | MSE Technical Elective          |                                     |
| _____      | 3 _____ | MSE Technical Elective          |                                     |
| _____      | 3 _____ | MSE Technical Elective          |                                     |

<sup>1</sup>Italicized courses indicate corequisites, that is, courses that must be taken before or concurrently.