MATERIALS SCIENCE AND ENGINEERING SAMPLE CURRICULUM SCHEDULE

Shown below is an example of a schedule of courses that leads to a B.S. in Materials Science and Engineering in four years. It satisfies all the relevant course prerequisites and the Materials Science and Engineering degree requirements.

| FIRST TERM | | | SECOND TERM | | |
|--|--|---|--|--|--|
| Subject | | Credits | Subject | | Credits |
| CHEM0960 | Gen. Chem. for Engr.1 | 3 | CHEM0970 | Gen. Chem. for Engr.2 | 3 |
| MATH0220 | Anal. Geometry & Calc.1 | 4 | MATH0230 | Anal. Geometry & Calc.2 | 4 |
| PHYS0174 | Phys. for Sci. & Engr.1 | 4 | PHYS0175 | Phys. for Sci. & Engr.2 | 4 |
| ENGR0011 | Intro. to Engr. Analysis | 3 | ENGR0012 | Engr. Computing | 3 |
| ENGCMP0210 | Seminar in Composition | 3 | ENGCMP0412 | Engr. Communication | 3 |
| ENGR0081 | Freshman Seminar | 0 | ENGR0082 | Freshman Seminar | 0 |
| | | 17 | - | | 17 |
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| THIRD TERM | | G 114 | FOURTH TERM | | G 114 |
| Subject | | Credits | Subject | D:00 | Credits |
| MATH0240 | Anal. Geometry & Calc.3 | 4 | MATH0290 | Differential Equations | 3 |
| MATH0280 | Matrices & Linear Algebra | 3 | ENGR0145 | Statics & Mech. Mater.2 | 3 |
| ENGR0135 | Statics & Mech. Mater.1 | 3 | MEMS0031 | Electrical Circuits | 3 |
| MEMS0023 | Intro. to MSE | 3 | MEMS0040 | Materials & Manufacturing | 3 |
| MEMS0024 | Intro. to ME Design | 3 | MEMS0048 | Thermodynamics of Materials | 3 |
| MEMS1085 | Departmental Seminar | 0 | NEW 101005 | Communication Skills Elective | 3 |
| MEMS1086 | MSE Seminar | 0 | MEMS1085 | Departmental Seminar | 0 |
| | | 16 | MEMS1086 | MSE Seminar | 0 |
| FIFTH TERM | | | SIXTH TERM | | 18 |
| Subject | | Credits | Subject | | Credits |
| MEMS1010 | Experimental Methods in MSE | 3 | MEMS1011 | Struct. & Prop. Lab | 3 |
| MEMS1052 | Heat and Mass Transfer | 3 | MEMS1028 | Mechanical Design 1 | 3 |
| MEMS1052 | Struct. of Crystals & Diffract. | 3 | MEMS1063 | Phase Transformations | 3 |
| MEMS1058 | Electromagnetic Prop. Mater. | 3 | MEMS1070 | Mech. Behavior of Materials | 3 |
| MEMS1059 | Phase Equilibria | 3 | 1,121,121,0 | Engineering Elective | 3 |
| MEMS1085 | Departmental Seminar | | | | |
| | | () | MEMS1085 | Departmental Seminar | 0 |
| MEMSTUSO | | 0 | MEMS1085 MEMS1086 | Departmental Seminar MSE Seminar | 0 |
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| | MSE Seminar | 0 | MEMS1086 | MSE Seminar | 0 |
| SEVENTH TE | MSE Seminar | <u>0</u> 15 | MEMS1086 EIGHTH TERM | MSE Seminar | <u>0</u> 15 |
| SEVENTH TE | MSE Seminar | 0 15 Credits | MEMS1086 EIGHTH TERM Subject | MSE Seminar | 0 15 Credits |
| SEVENTH TE Subject MEMS1030 | MSE Seminar RM Material Selection | 0 15 Credits 3 | MEMS1086 EIGHTH TERM | MSE Seminar I Senior Design Project | 0 15 Credits 3 |
| SEVENTH TE | MSE Seminar RM Material Selection Senior Mater. Research Proj. | 0 15 Credits 3 3 | MEMS1086 EIGHTH TERM Subject | MSE Seminar I Senior Design Project MSE Technical Elective | 0 15 Credits 3 3 |
| SEVENTH TE Subject MEMS1030 | MSE Seminar RM Material Selection Senior Mater. Research Proj. MSE Technical Elective | 0 15 Credits 3 3 3 | MEMS1086 EIGHTH TERM Subject | MSE Seminar I Senior Design Project MSE Technical Elective MSE Technical Elective | 0 15 Credits 3 3 3 |
| SEVENTH TE Subject MEMS1030 | MSE Seminar RM Material Selection Senior Mater. Research Proj. MSE Technical Elective Humanity/Soc. Sci. Elective | 0 15 Credits 3 3 3 3 | MEMS1086 EIGHTH TERM Subject | MSE Seminar I Senior Design Project MSE Technical Elective MSE Technical Elective Humanity/Soc. Sci. Elective | 0 15 Credits 3 3 3 3 |
| SEVENTH TE Subject MEMS1030 MEMS1070 | MSE Seminar RM Material Selection Senior Mater. Research Proj. MSE Technical Elective Humanity/Soc. Sci. Elective Humanity/Soc. Sci. Elective | 0 15 Credits 3 3 3 3 3 | MEMS1086 EIGHTH TERM Subject MEMS1043 | MSE Seminar I Senior Design Project MSE Technical Elective MSE Technical Elective Humanity/Soc. Sci. Elective Humanity/Soc. Sci. Elective | 0 15 Credits 3 3 3 3 3 |
| SEVENTH TEX Subject MEMS1030 MEMS1070 | MSE Seminar RM Material Selection Senior Mater. Research Proj. MSE Technical Elective Humanity/Soc. Sci. Elective Humanity/Soc. Sci. Elective Departmental Seminar | 0 15 Credits 3 3 3 3 3 0 | MEMS1086 EIGHTH TERM Subject MEMS1043 MEMS1085 | MSE Seminar Senior Design Project MSE Technical Elective MSE Technical Elective Humanity/Soc. Sci. Elective Humanity/Soc. Sci. Elective Departmental Seminar | 0 15 Credits 3 3 3 3 3 0 |
| SEVENTH TE Subject MEMS1030 MEMS1070 | MSE Seminar RM Material Selection Senior Mater. Research Proj. MSE Technical Elective Humanity/Soc. Sci. Elective Humanity/Soc. Sci. Elective | 0 15 Credits 3 3 3 3 3 | MEMS1086 EIGHTH TERM Subject MEMS1043 | MSE Seminar I Senior Design Project MSE Technical Elective MSE Technical Elective Humanity/Soc. Sci. Elective Humanity/Soc. Sci. Elective | 0 15 Credits 3 3 3 3 3 |