

## Materials Science and Engineering with Enterprise Concentration Curriculum Flow Chart – 128 Credits Required

	Year 1	Year 2	Year 3	Year 4
<b>FALL</b>	MA1160 Calculus I (4)	MA3160 Multivariable Calculus (4)	MY3100 Matls Processing I (4)	MY4900 MSE Professional Development (1)
	CH1150 Univ. Chemistry I (3)	CH1160 Univ Chemistry II (3)	MY3200 Matls Characterization I (4)	CM/CH4610 Intro to Polymer Science (3) or MY4600 Intro to Polymer Engineering (3)
	CH1151 Univ. Chemistry I Lab (1)	CH1161 Univ Chemistry II Lab (1)	MY3400 Mechanical Props Matls (3)	EC3400 Economic Decision Analysis (3)
	PH1100 Introductory Physics Lab I (1)	PH2200 Univ. Physics II - E&M (3)	MA3710 Engineering Statistics (3)	Technical Electives (4)
	ENG1101 Engineering Analysis and Problem Solving (3)	MY2100 Intro Matls Sci & Engr (3)	<b>ENT3950 Enterprise Proj. I (1)</b>	Gen Ed (3)
	UN1001 Perspectives (3)	UN2002 Institutions (3)	<b>ENT2961 – Teaming in the Enterprise (2)</b>	<b>ENT4950 Enterpr. Proj. III (2)</b> <b>Enterprise Elective Module (1)<sup>2</sup></b>
	<b>15 total</b>	<b>17 total</b>	<b>17 total</b>	<b>17total</b>
	<b>SPR</b>	MA2160 Calculus II (4)	MA2320 or MA2321 Elementary Linear Algebra (2) (half-semester)	MY3110 Matls Processing II (4)
PH2100 Univ. Physics I - Mechanics (3)		MA3520 or MA3521 Brief Differential Equations (2) (half-semester)	MY3210 Matls Characterization II (4)	Gen Ed, or Technical or Free Elective if ENT modules are used as Gen Ed requirement (3)
PH1200 Introductory Physics Lab II (1)		ENG2120 Statics-Strength of Materials (4)	MY3300 Design of Microstructure (3)	Gen Ed (6)
ENG1102 Engineering Modeling and Design (3)		MY2000 Intro to Materials Processing (3)	MY3700 Electronic, Magnetic and Optical Props Matls (4)	<b>ENT4960 Enterprise Proj. IV (2)</b>
UN1002 World Cultures (4)		UN2001 Revisions (3)	<b>ENT3960 Enterpr. Proj. II (1)</b>	<b>Enterprise Elective Module(1)<sup>2</sup></b>
		<b>ENT2962 Comm. Strategies (1)</b>	<b>Enterprise Elective Module (1)<sup>2</sup></b>	
<b>15 total</b>		<b>15 total</b>	<b>17 total</b>	<b>15 total</b>

1. Technical Electives must be at the 3000 or higher level in Science, Engineering or Mathematics.
2. Appropriate choice of 3 Enterprise Elective Module credits could satisfy Gen. Ed. Distribution requirements thereby reducing the total degree requirements with Minor to a minimum of 131. ENT2961 and ENT2962 are suggested here, but there are other communication choices available within the Minor. ENT2961 may be taken in fall of the second year if schedule permits.
3. Physical Education (3 credits) are not included in the flowsheet and must be added by the student..
4. Most courses have prerequisites. Please see the MSE academic advisor or the University Catalog at [https://www.banweb.mtu.edu/pls/owa/stu\\_ctg\\_utils.p\\_online\\_all\\_courses ug](https://www.banweb.mtu.edu/pls/owa/stu_ctg_utils.p_online_all_courses ug) for course descriptions and prerequisites.