

Updated 5/7/18

FRESHMAN			SOPHOMORE			JUNIOR			SENIOR		
Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring
<b>Intro to IME</b> <b>IME 101 (1)</b>		<b>Intro to Design &amp; Manufacturing</b> <b>IME 144 (4)</b> <small>(Recom: IME 140 or ME 129)</small>	<b>Process Improvement Fundamentals</b> <b>IME 223 (4)</b> <small>(MATH 141, Recom: IME 101)</small>	<b>Industrial Costs &amp; Controls</b> <b>IME 239 (3)</b> <small>(IME 223)</small>	<b>Engineering Economics</b> <b>IME 314 (3)</b> <small>(MATH 241)</small>	<b>Operations Research I</b> <b>IME 301 (4)</b> <small>(MATH 244)</small>	<b>Human Factors Engineering</b> <b>IME 319 (3)</b> <small>(PSY 201 or 202; Jr Standing)</small>	<b>Data Management &amp; System Design</b> <b>IME 312 (4)</b> <small>(CSC 232)</small>	<b>Production Planning &amp; Control Systems</b> <b>IME 410 (4)</b> <small>(IME 342 or 305)</small>	<b>Senior Design Project I</b> <b>IME 481 (2)<sup>2</sup></b> <small>(Sr. Standing, Instr. consent)</small>	<b>Senior Design Project II</b> <b>IME 482 (3)<sup>2</sup></b> <small>(IME 481)</small>
<b>Graphics Comm. &amp; Modeling</b> <b>IME 140 (2)</b>	<b>General Chem for Physical Sci &amp; Engineering I</b> <b>CHEM 124 (4)</b> * [B3/B4]	<b>Basic Electronics Manufacturing</b> <b>IME 156 (2)</b>	<b>General Physics III</b> <b>PHYS 133 (4)</b> <small>(PHYS 131, HNRS 131, or PHYS 141; MATH 142; Recom: MATH 241)</small>	<b>General Psychology</b> <b>PSY 201 or PSY 202 (4)</b> [D4]	<b>Take concurrently: BIO 213 (2) &amp; BMED 213 (2)</b> <small>(MATH 142, Recom: CHEM 124)</small> [B2]	<b>Project Org &amp; Management</b> <b>IME 303 (4)</b> <small>(IME 314 &amp; Jr. Standing)</small>	<b>Engineering Test Design &amp; Analysis</b> <b>IME 326 (4)</b> <small>(STAT 321 w/min C-)</small>	<b>Operations Research II</b> <b>IME 305 (4)</b> <small>(IME 301 or STAT 321)</small>	<b>Simulation</b> <b>IME 420 (4)</b> <small>(IME 305; 326 or 327)</small>	<b>Facilities Planning &amp; Design</b> <b>IME 443 (4)</b> <small>(IME 144; 223; 314; &amp; 305 or 342. Recom: IME 319 &amp; 420)</small>	<b>Approved Technical Elective</b> <b>(3)<sup>1</sup></b>
<b>Mfg. Proc: Net Shape</b> <b>IME 141 (1)</b>	<b>General Physics IA</b> <b>PHYS 141 (4)</b> <small>(MATH 141 w/min C-, MATH 142 or 182†)</small> [Add'l Area B]	<b>General Physics II</b> <b>PHYS 132 (4)</b> <small>(PHYS 131, HNRS 131, or PHYS 141)</small>	<b>Calculus IV</b> <b>MATH 241 (4)</b> <small>(MATH 143)</small>	<b>Linear Analysis I</b> <b>MATH 244 (4)</b> <small>(MATH 143)</small>	<b>Probability &amp; Stats for Engineers &amp; Scientists</b> <b>STAT 321 (4)</b> <small>(MATH 142)</small> [B6]	<b>Electric Circuit Theory &amp; Lab</b> <b>EE 201(3) &amp; 251(1)</b> <small>(MATH 244 &amp; PHYS 133)</small>	<b>Electronics</b> <b>EE 321 (3)</b> <small>(EE 201 )</small>	<b>Approved Technical Elective</b> <b>(3)<sup>1</sup></b>	<b>Quality Engineering</b> <b>IME 430 (4)</b> <small>(IME 326, 327, 503, STAT 302, or 312)</small>	<b>Supply Chain &amp; Logistics Management</b> <b>IME 417 (4)</b> <small>(IME 342 or 410)</small>	<b>Approved Technical Elective</b> <b>(4)<sup>1</sup></b>
<b>Calculus I</b> <b>MATH 141 (4)</b> * [B1]	<b>Calculus II</b> <b>MATH 142 (4)</b> <small>(MATH 141 w/min C-)</small> [B1]	<b>Calculus III</b> <b>MATH 143 (4)</b> <small>(MATH 142 w/min C-)</small> [Add'l Area B]	<b>Computer Prog. for Scientists &amp; Engineers</b> <b>CSC 232 (3)</b> <small>(MATH 118 or equiv.)</small>	<b>Engineering Statics</b> <b>ME 211 (3)</b> <small>(PHYS 131 or 141, MATH 241†)</small>	<b>Engineering Dynamics</b> <b>ME 212 (3)</b> <small>(MATH 241; ME 211 or ARCE 211)</small>	<b>Mechanics of Materials I</b> <b>CE 204 (3)</b> <small>(ME 211)</small>	<b>Materials Engineering &amp; Lab</b> <b>MATE 210(3) &amp; 215(1)</b> * [B1]		<b>Ergonomics Laboratory</b> <b>IME 429 (1)</b> <small>(IME 319; &amp; 326 or 327)</small>		
<b>Expository Writing ENGL 133 or 134 (4)**</b> [A1] <small>Can be taken anytime during Freshman Year</small>				<b>GE (4)**</b>			<b>GE (4)**</b>	<b>GE (4)**</b>	<b>GE (4)**</b>	<b>GE (4)**</b>	<b>GE (4)**</b>
<b>Oral Communication COMS 101 or 102 (4)**</b> [A2] <small>Can be taken anytime during Freshman Year</small>											
<b>GE (4)**</b>	<b>Technical Writing for Engineers ENGL 149 (4)</b> [A3] <small>(Completion of GE A1 with a C- or better, Recom: Completion of GE A2) Can be taken anytime between Winter of Freshman and Winter of Sophomore Years</small>					<b>Graduation Writing Requirement GWR*</b> <small>(Students can attempt to fulfill the requirement after 90 earned units; students should complete the requirement before senior year)</small>					
16	16	18	15	18	14	15	18	15	17	14	14
										<b>TOTAL:</b>	<b>190</b>

**Notes:**

**MOST GENERAL EDUCATION COURSES CAN BE TAKEN IN ANY ORDER AS LONG AS PREREQUISITES ARE MET**

\* Refer to current catalog for prerequisites.

\*\* One course from each of the following GE areas must be completed: A1, A2, C1, C2, C3, C4, D1, D2, D3. C4 should be taken only after Junior standing is reached (90 units).

Refer to online catalog for GE course selection, United States Cultural Pluralism (USCP) and Graduation Writing Requirement (GWR).

USCP requirement can be satisfied by some (but not all) courses within GE categories: C3, C4, D1, or D3.

† Course can be taken previously or concurrently.

<sup>1</sup> 10 units Technical Electives required. At least 6 units upper level (300-level or above) engineering/computer science. Max 4 units 300-level+ from outside College of Engineering or lower level (100 or 200) engineering/computer science. IME 400/500 require special problems and substitution forms; no more than 4 units permitted. Consultation with advisor recommended prior to selecting courses.

<sup>2</sup> ENGR 459, ENGR 460, and ENGR 461 (6 units) may substitute for IME 481 and IME 482 (5 units) with one excess unit counting towards Technical Electives.

**Legend:**

Course Title	
<b>Course # (Units)</b>	<b>Major (79)</b>
(Prerequisite)	<b>Support (75)</b>
[GE Area]	<b>General Ed. (36)</b>