

## BSME Six Year (12 Semester Plan)

Starting in FYEX 1010 for Math

Course Subject and Title	Cr. Hrs.	Min Grade	Grade Rec'd	Hrs. Earned	Comments
<b>Semester One:</b>					
FYEX 1010: Foundational Math	3	C			
ENGL 1120: Composition II	3	C			
ME 217: Intro Env, Science and Tech	3	C			
Gen Ed (Comm, HUM A, HUM B, Fine Arts)	3	C			
ENG 195: Intro to Engineering Pathways	3	C			
<b>Total:</b>	<b>15</b>				
<b>Freshman Advisement</b>			<b>Become familiar with LoboTrax Audit</b>		
<b>Semester Two:</b>					
MATH 1215: Intermediate Algebra	3	C			
UNIV 102: Academic Foundations	2	C			
Gen Ed (Comm, HUM A, HUM B, Fine Arts)	3	C			
Gen Ed (Comm, HUM A, HUM B, Fine Arts)	3	C			
Gen Ed (Comm, HUM A, HUM B, Fine Arts)	3	C			
<b>Total:</b>	<b>14</b>				
<b>Consider a Minor or Take Fun Classes</b>					
<b>Semester Three:</b>					
MATH 1220: College Algebra	3	C			
CHEM 1215: General Chemistry I for STEM	3	C			Pre Admission
CHEM 1215L: General Chemistry I for STEM Lab	1	C			Pre Admission
Cultures Requirement	3	C			
ME 150: Intro to Modern Mech Engineering	3	C			ME Tech Elective
<b>Total:</b>	<b>13</b>				
<b>Consider a Minor or Take Fun Classes</b>					
<b>Semester Four:</b>					
MATH 1250: Trigonometry & Pre-Calc	5	C			
ME 160L: Mechanical Engineering Design I	3	C			Pre Admission
ENG 130L: Intro to Engineering Computing	3	C			Pre Admission
<b>Total:</b>	<b>11</b>				
<b>Consider a Minor or Take Fun Classes</b>					
<b>Semester Five:</b>					
MATH 1512: Calculus I	4	C			Pre Admission
PHYS 1310: Calc-based Physics I	3	C			
PHYS 1310L: Calc-based Physics I Lab	1	C			
ME 260L: ME Design II	3	C			
<b>Total:</b>	<b>11</b>				
<b>Consider a Minor or Take Fun Classes</b>			<b>Calculus 1 and Physics 1 is a tough combo – use ESS tutoring!</b>		

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<b>Semester Six:</b>					
MATH 1522: Calculus II	4	C			Pre Admission
PHYS 1320: Calc-based Physics II	3	C			
PHYS 1320L: Calc-based Physics II Lab	1	C			
<b>Total:</b>	<b>8</b>				
<b>Transfer into Program ...Once grades post</b>					
<b>Semester Seven:</b>					
MATH 2531: Calculus III	4	C			
CE 202: Engineering Statics	3	C			
ECE 203: Circuit Analysis I	3	C			
<b>Total:</b>	<b>10</b>				
<b>ME orientation w/in first 4 weeks</b>					
<b>Semester Eight:</b>					
MATH 316: Differential Equations	4	C			
ME 306: Dynamics	3	C			
ME 318L: Mechanical Engr Lab	3	C			
ME 301: Thermodynamics	3	C			
CE 302: Mechanics of Materials	3	C			
<b>Total:</b>	<b>16</b>				
<b>Look for Internships</b> <span style="float: right;"><b>You might run into time conflicts!</b></span>					
<b>Semester Nine:</b>					
Math Elect: 311, 312, 3,13, 314, or STAT 345	3	C			
ME 317L: Fluid Mechanics Lab	4	C			
ME 357: Intro to Mech Vibrations	3	C			
ME 360L: ME Design III	3	C			
ME 370L: Engr Materials Science	4	C			
<b>Total:</b>	<b>17</b>				
<b>Look for Internships</b>					
<b>Semester Ten:</b>					
ME 380: Mech Control Systems	3	C			
Design option ME Elective 300+ <b>OR</b>		C			
FSAE option ME 406L: Racecar Design	3	C			Add one credit for FSAE
ME 320L: Heat Transfer	4	C			
ME 459: ME Design IV	3	C			
<b>Total:</b>	<b>13</b>				Add one credit for FSAE
<b>Apply for degree 1 Yr in advance</b> <span style="float: right;"><b>Apply for Shared Credit Program</b></span>					
<b>Semester Eleven:</b>					
ME Elective 300+	3	C			
Design option: ME Elective 300+ <b>OR</b>		C			
FSAE option ME 407: Fabrication Lab	3	C			
<b>Total:</b>	<b>6</b>				
<b>Apply to Grad School</b>					

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<b>Semester Twelve:</b>					
Design option ME 460: ME Design V OR FSAE option ME 408: Racecar Test Lab	4	C			subtract 1 cr for FSAE
ME Elective 300+	3	C			
ME Elective 300+	3	C			
<b>Total:</b>	<b>10</b>				subtract 1 cr for FSAE
<b>Graduation email - Attend Grad Fair</b>					

### **Pre-Admission Requirements for ME (Highlighted in yellow)**

- Cumulative GPA 2.3
- English 1110 (or higher) completed or equivalent
- GPA of 2.75 for 18 cr of pre-admission coursework (14cr req: MATH 1512, 1522, ME 160L, PHYS 1310)
- Pre-Admission Coursework (22cr) must be completed with grade of C or higher: MATH 1512, MATH 1522, PHYC 1310/1310L, CHEM 1215/1215L, ME 160L, ENG 130L

### **ME Math Electives**

MATH 311: Vector Analysis

MATH 312: Partial Differential Equations

MATH 313: Complex Variables

MATH 314: Linear Algebra with Applications

MATH 321: Linear Algebra

STAT 345: Elements of Mathematical Statistics

### **ME Electives**

Includes all Mechanical Engineering elective courses 300-level and above.

### **\*ME Technical Electives**

May be selected from Mechanical Engineering Electives or from approved upper-division (300-level and above) courses from Mathematics/Statistics, Chemistry, Physics, Computer Science, Engineering, or from ME 150, PHYS 2310, 2310L, or ECE 206L. Technical Electives may not be taken on the CR/NC grading option.

### **School of Engineering Minimum Requirements and ME notes**

- Total credit hours = varies by catalog year (typically 126 credits, not including pre-requisite math)
- 300/400 level credit hours = 62 (Could include 200 level math courses in transfer or branch)
- Students must be admitted to department before enrolling in 300 level ME courses
- Courses for degree must have a letter grade of C or higher (no CR/NCR or Audit grades permitted)
- Completion timeline based on Math placement: FYEX 1010 - 12 semesters; MATH 1215 – 11 semesters; MATH 1220 – 10 semesters; MATH 1250 – 9 semesters; MATH 1512 – 8 semesters