

**Integrated Business and Engineering Honors Program**  
**Curriculum for a Major in Mechanical Engineering (revised Fall 2011)**  
**All IBE Students Should Follow the Common Freshman Year Curriculum**

**Sophomore Year, Fall Semester**

Credits	Course	Description	Semester	Prerequisites
3	Mech 3	Elem. Engin.	F,S	Phys 11, Math 22 (PC)
4	Physics 21	Introductory Physics II	F,S	Phys 11, Math 23 (PC)
1	Physics 22	Physics Lab	F,S	Physics 12, Phys 21 (Co pref.)
4	Math 23	Calculus III	F,S	Math 22
1	IBE 150	IBE Sophomore Lab	F	IBE status
3	HSS Elective #1			(Dual degree, see below)
16	Semester total			
50	Cumulative			

**Sophomore Year, Spring Semester**

Credits	Course	Description	Semester	Prerequisites
3	Math 231	Prob. & Statistics	F,S	Math 22
3	ME 104	Thermodynamics	S	Math 23 (PC), Phys 11 (PC)
1	ME 21	ME Lab I	F	Mech 12 (PC)
3	Mech 12	Strength of Materials	S	Mech 3, Math 23 (PC)
3	Eco 029	Money & Banking	F,S	Eco 1
3	Acct 151	Intro. Financial	F,S	Sophomore standing, Engr 097
16	Semester total			
66	Cumulative			

**Junior Year, Fall Semester**

Credits	Course	Description	Semester	Prerequisites
3	ME 10	Graphics for Engin.	F	
3	Mech 102	Dynamics	F	Mech 2, Math 23
3	Eco 146	App. Microeconomics	F,S	Eco 1, Math 231
3	Acct 152	Intro. Managerial	F,S	Acct 151
3	Math 205	Linear Systems	F,S	Math 23 (PC)
3	HSS Elective #2			(Dual degree, see below)
1	IBE 250	IBE Junior Lab	F	IBE 150
19	Semester total			
85	Cumulative			

**Junior Year, Spring Semester**

Credits	Course	Description	Semester	Prerequisites
3	ME 231	Fluid Mechanics	S	Math 205
1	ME 121	ME Lab II	S	ME 21, ME 104, ME 231 (Co)
3	ME 240	Manufacturing	S	ME 10, Mat 33, Mech 12
3	Fin 125	Intro. to Finance	F,S	Eco 029, Acct 151, Math 231
3	Free Elective #1			
3	IBE 380	IBE Capstone Design	S	IBE 050
16	Semester total			
101	Cumulative			

**Senior Year, Fall Semester**

Credits	Course	Description	Semester	Prerequisites
2	ME 207	ME Lab III	F,S	ME 121
4	Comm 160* or	Public Speaking for	F,S	
3	BIS 111	Business Info. Sys.	F,S	Engr 097
3	Free Elective #2			
3	ECE 83	Princ. Electrical Engin.	F,S	Math 22, Phys 21 (PC)
3	IBE 385	IBE Capstone Design	S	IBE 380
18	Semester total			
119	Cumulative			

\* Comm 160 recommended

**Senior Year, Spring Semester**

Credits	Course	Description	Semester	Prerequisites
3	ME 242 or 252	ME Sys or Mech	F,S or S	Mech 102, Math 205, ME 231 (PC), or Mech 12, Mech 102, ME 10
3	ME 321	Intro Heat Transfer	F,S ??	ME 104, ME 231
3	Mgmt 243	Mgmt of	F,S	Eco 1, Junior Standing
3	Mkt 111	Princ. Of Marketing	F,S	Eco 1, Sophomore Standing
3	Law 201	Legal Env. of	F,S	Eco 1, Junior standing
3	Free Elective #3			
18	Semester total			
137	Cumulative			

(PC) = Previously or Concurrently **(Co) = Co-requisite; must be taken at the same time**

In addition to the curriculum above, IBE ME majors must fulfill standard IBE requirements including

Language proficiency

Summer internship

Maintain a GPA of at least 3.25

## Mechanical Engineering Dual Degree Option

### Courses required for the BSME degree not taken by IBE ME Majors

Credits	Course	Description	Semester	Prerequisites
3	Mat 33	Engin. Materials &	F,S	
1	ECE 162	Electrical Lab	S	ECE 83
3	ME 242 or 252	BSME must take both	F,S	Mech 102, Math 205, ME 231 (PC), or Mech 12, Mech 102, ME 10
2	ME Senior Lab II	ME 208 or 210 or 389		
3	ME Elective A	Mech 302 or ME 305,304,322,331, or		
3	ME Elective B	ME or Mech 300 level excluding ME 310		
9	ME Elective C	Approved tech.		
21	Total Credits			

### To complete the BSME Dual degree program, students must

1. Take the above **Courses required for the BSME degree not taken by IBE ME Majors**
2. Complete at least 159 total credits (ME degree requires 129 + 30 credits from the 30 credit rule)
3. Take at least 2 additional credits of Eco in their HSS electives (to fulfill the 8 credits in 1 dept. rule)