

**Integrated Business and Engineering Honors Program
Curriculum for a Major in Industrial and Systems Engineering
Draft Revised Aug 2016**

All IBE Students Should Follow the Common Freshman Year Curriculum

Sophomore Year, Fall Semester

Credits	Course	Description	Semester	Prerequisites
3	ISE 111*	Engineering Prob. & Stat.	F,S	Math 22
4	Math 23	Calculus III	F,S	Math 22
3	Acct 151	Intro Financial Accounting	F, S	Excel Comp, Sophomore Standing
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 preferrable)
2	CSE 002	Fund. Of Comp. Programming	F,S	Engin 010
1	IBE 150	IBE Sophomore Lab	F	IBE 050 or permission
18	Semest. total			
52	Cumul.credits			

* ISE 111 substitutes for Math 231 in the IBE curriculum as long as ISE 121 is also taken.
Math 231 may be substituted for ISE 111 in the IBE ISE and ISE curriculum

Sophomore Year, Spring Semester

Credits	Course	Description	Semester	Prerequisites
3	ISE 121	Applied Engineering Statistics	S	ISE 111 or Math 231
3	ISE 131	Work Systems	S	Math 22
3	Mat 33 OR CSE 17	Engin. Materials & Processes	F,S	CSE 17 requires CSE 002
3	Acct 152	Intro. Managerial Accounting	F,S	Acct 151
3	HSS Elective #1	Human./Social Sci Elec		
3	Eco 029	Money and Banking	F,S	Eco 1
18	Semester total			
70	Cumul. credits			

Junior Year, Fall Semester

Credits	Course	Description	Semester	Prerequisites
3	ISE 224**	Information Systems	F,S	Engr 010
3	ISE 230	Stoch. OR	F, Sum	ISE 111
4	ISE 215 and 216 OR ISE 172		F	ISE 215 reqs Mat 33, ISE 172 reqs CSE 17
3	Engineering Elective	Elem. Engin. Mechanics	F	Phys 11,Math 22 (PC)
1	IBE 250	IBE Junior Lab	F	IBE 150
4	Comm 160* or 130	Public Speaking for IBE	F,S	
18	Semester total			
88	Cumulative credits			

* Comm 160 recommended,

** ISE 224 substitutes for BIS 111 in the business core

Junior Year, Spring Semester

Credits	Course	Description	Semester	Prerequisites
3	Fin 125	Intro. to Finance	F,S	Eco 029, Acct 151, ISE 111 or Math 231
3	Eco 146	App. Microeconomics	F,S	Eco 1, Math 231 or ISE 121
3	ISE 240	Deter. Operations Res.	F,S	ISE 111 or Math 231 (Math 205)
3	Mkt 111	Princ. Of Marketing	F, S	Soph Standing
3	HSS Elect. #2	Hum., Soc. Sci. elective	F,S	
3	IBE 380	IBE Capstone Design	S	IBE 050, Junior standing
18	Semester total			
106	Cumulative credits			

Senior Year, Fall Semester

Credits	Course	Description	Semester	Prerequisites
3	Law 201	Legal Env. Of Business	F,S	Eco 1, Junior standing
3	ISE 251	Prod., Inven. Control	F	ISE 121, ISE 230, ISE 240
3	ISE Technical Elective			
3	ISE Technical Elective			
3	IBE 385	IBE Capstone Design	F	IBE 380
15	Semester total			
121	Cumulative credits			

Senior Year, Spring Semester

Credits	Course	Description	Semester	Prerequisites
3	Mgmt 143	Mgmt of People & Ops.	F,S	Junior Standing
3	ISE 305	Simulation	S	ISE 121, ISE 230
3	Engineering Elective			
3	ISE Technical Elective			
4	Free Elective #2			
16	Semester total			
137	Cumulative credits			

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

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

- Language proficiency
- Summer internship
- Maintain a GPA of at least 3.25

ISE Dual Degree Option

Courses required for the BSISE degree not taken by IBE ISE Majors:

Credits	Course	Description	Semester	Prerequisites
1	ISE 112	Computer Graphics Lab	F	Engin 010
1	ISE 132	Work Systems Lab	S	ISE 131 (Co)
3	ISE 226	Engineering Economics	S	ISE 111
3	ISE 254	ISE Senior Project	F,S	Senior Standing
3	Engineering Elective			
3	Math 205	Linear Systems	F,S	Math 23 (PC)
3	ISE Technical Elective			
7	Free Elective Credits to reach	to reach 160 total credits	needed for	both degrees
24	Total Credits	(PC) = Previous or Concurrent (Co) = Co-requisite; must be taken together		

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Dual degree students must assure Engineering college HSS requirements are satisfied.

An easy way to do this is to make one of the HSS electives and Eco SS class.