

Effective Fall 2011

INDUSTRIAL ENGINEERING PROGRAM
Baccalaureate Curriculum Guide

First Semester Courses				Hrs	Gr	Second Semester Courses				Hrs	Gr		
FRESHMAN													
IMSE	201	Introduction to Industrial Engineering			3		IMSE	250	Intro. to Manufacturing Processes			2	
MATH	220	Anal. Geom. & Calc I			4		IMSE	251	Intro. to Manufacturing Processes Lab			1	
CHM	210	Chemistry I			4		MATH	221	Anal. Geom. & Calc. II			4	
ENGL	100	Expository Writing I ¹			3		ECON	120	Principles of Microeconomics			3	
		Humanities or Social Science			3		ME	212	Engineering Graphics			2	
IMSE	015	Engineering Assembly			0		COMM	105	Public Speaking 1A			2	
									Humanities or Social Science			3	
							IMSE	015	Engineering Assembly			0	
Total				17		Total				17			
SOPHOMORE													
MATH	222	Anal. Geom. & Calc. III			4		MATH	551	Applied Matrix Theory			3	
STAT	510	Introduction to Probability & Statistics I			3		STAT	511	Introduction to Probability & Statistics II			3	
PHYS	213	Engineering Physics I			5		PHYS	214	Engineering Physics II			5	
ACCTG	231	Accounting for Business Operations			3		IMSE	530	Engineering Economic Analysis			2	
IMSE	015	Engineering Assembly			0		IMSE	532	Industrial Project Evaluation			1	
									Humanities or Social Science			3	
							IMSE	015	Engineering Assembly			0	
Total				15		Total				17			
JUNIOR													
IMSE	560	Operations Research I			3		IMSE	660	Operations Research II			3	
IMSE	541	Statistical Quality Control			3		IMSE	555	Industrial Facility Layout and Design			3	
IMSE	623	Industrial Ergonomics			3		MANGT	420	Management Concepts			3	
		Computer Programming Elective			3				Engineering Elective			3	
		Engineering Elective			3		ENGL	415	Written Communication for Engineers			3	
IMSE	015	Engineering Assembly			0		IMSE	050	Industrial Plant Studies			0	
							IMSE	015	Engineering Assembly			0	
Total				15		Total				15			
SENIOR													
IMSE	633	Production Planning & Inventory Control			3		IMSE	580	Manufacturing System Design & Analysis			4	
IMSE	643	Industrial Simulation			3		IMSE	685	Manufacturing Information Systems			3	
		IMSE Elective			3				IMSE Elective			3	
		Professional Elective			3				Professional Elective			3	
		Engineering Elective			3				Professional Elective			3	
IMSE	015	Engineering Assembly			0		IMSE	015	Engineering Assembly			0	
Total				15		Total				16			

Number of Hours Required for Graduation is 127

IMSE CURRICULUM NOTES:

Computer Programming Elective: The computer programming elective consists of 3 hours taken from CIS 200, CIS 209 or ME 400.

Engineering Electives: The 9 hours of basic engineering credit may not include more than 6 hours from a single department and the 9 hours must be selected from the following courses. Note, a student planning to take the FE exam is advised to take their 9 hours from classes with an *.

BAE 345; CE 333, 530* (at most one of 333 and 530) and 533; CHE 350, 354*, 355*, 356*, 520 and 521; ECE 410, 511, 519* and 571; ME 512*, 513, 571 and 573.

Professional Electives: The 9 hours of professional electives are designed so that the student may specialize in an area of interest. Any of the following classes may count toward the professional elective requirement. Any IMSE class; any engineering, Physics, Chemistry, Biochemistry, Biology, Geology, Kinseology above 300; any CIS class above 200; Math 240 and any Mathematics class above 500 except MATH 570 and 591; any Statistics class above 500 except STAT 702, 703, 706 and 710; BIO 198, 201; CHEM 230; FINAN 450, 510, 520, 643; ACCTG 241, 331, 342, 433; ECON 510, 520, 530, 540.

IMSE Electives: The IMSE electives must be selected from the IMSE department. Each class must also be at least 3 credit hours.

Substitutions: IMSE 501 can substitute for MANGT 420; IMSE 591 and IMSE 592 can substitute for IMSE 580. Concurrent or prerequisite requirement for IMSE 591 is 24 credit hours of IMSE courses of 500 level or above.

K-State 8: The courses required a BSIE degree satisfy five of the K-State 8 areas. The student must fulfill the aesthetic experience (AE), global perspective (GP), and historical perspective (HP) tags. Most students will fill these tags with their humanities, social science or professional electives.

IMSE Assembly Requirement: Each semester a student must enroll in IMSE 015 unless he/she is a concurrent B.S./M.S.I.E. student in which case he/she must enroll in either IMSE 015 or IMSE 892.

¹ Prerequisite for ENGL 415 is a "B" or better in ENGL 100. ENGL 200 must be taken if ENGL 100's grade ≤ "C".