



Bachelor of Science Industrial & Systems Engineering 2003-2004

Student's Name _____ SSN _____

First Year	Qtr.	Grd	(50 credit hours)	F	W	S	R	
CEG 220	4.0	___	___	Introduction to C Programming ----- (MTH 229)	a	a	x	•
CHM 121	5.0	___	___	Submicroscopic Chemistry----- (CHM 101, MTH 127)	a	x	•	a
EGR 190	4.0	___	___	Fundamentals of Engineering I -----	x	a	a	•
ENG 101	4.0	___	___	Freshman Composition -----	x	a	a	a
ENG 102	4.0	___	___	Freshman Composition -----(ENG 101)	a	x	a	a
HST ___	4.0	___	___	History -----	a	a	x	a
ISE 195	2.0	___	___	Introduction to Industrial & Systems Engineering -----	•	•	x	•
MTH 229	5.0	___	___	Calculus I ----- (either MTH 130 and MTH 131 or MTH 134)	x	a	a	a
MTH 230	5.0	___	___	Calculus II----- (MTH 229)	a	x	a	a
MTH 231	5.0	___	___	Calculus III----- (MTH 230)	a	a	x	a
___	4.0	___	___	Human Behavior -----	x	a	a	a
___	4.0	___	___	General Education-----	a	x	a	a

Credit Hours Per Quarter in the Model Program ----- 17 18 15

Second Year	Qtr.	Grd	(52 credit hours)	F	W	S	R	
EGR 335	3.0	___	___	Technical Communication for Engineering ----- (ENG 101, ENG 102)	a	a	x	a
ISE 301	4.0	___	___	Statistical Methods for Testing, Development and Manuf. I----- (MTH 230)	x	a	a	•
ISE 302	4.0	___	___	Statistical Methods for Testing, Development and Manuf. II ----- (ISE 301)	•	x	a	•
ISE 306	4.0	___	___	Industrial & Systems in Engineering & Design----- (ISE 301)	x	•	•	•
ME 212	4.0	___	___	Statics----- (MTH 231, PHY 240)	a	x	a	a
ME 213	4.0	___	___	Dynamics ----- (PHY 240, ME 212)	a	a	x	a
MTH 232	5.0	___	___	Calculus IV ----- (MTH 231)	x	a	a	a
MTH 233	5.0	___	___	Differential Equations----- (MTH 231)	a	x	a	a
MTH 253	3.0	___	___	Elementary Matrix Algebra ----- (MTH 230)	a	a	x	•
PHY 200	1.0	___	___	Physics I Laboratory ----- (PHY 240c)	x	•	a	a
PHY 240	4.0	___	___	Physics I----- (MTH 229, MTH 230c, PHY 200c)	x	•	a	a
PHY 202	1.0	___	___	General Physics II Laboratory----- (PHY 242c)	a	x	•	a
PHY 242	4.0	___	___	General Physics II ----- (MTH 230, PHY 240, PHY 202c)	a	x	•	a
PHY 204	1.0	___	___	General Physics III Laboratory ----- (PHY 244c)	•	a	x	•
PHY 244	5.0	___	___	General Physics III ----- (MTH 230, PHY 240, PHY 204c)	•	a	x	•

Credit Hours Per Quarter in the Model Program ----- 18 18 16

NOTES:

In the right hand columns:

- (x) denotes courses in a model program with a non-conflicting schedule for a full-time student.
- (a) denotes courses likely to be available.
- (•) denotes courses normally not available. Check the Class Schedule for current information.

Course numbers in parentheses denote a prerequisite course except that when followed by "c" indicating a co-requisite course.

2003-2004 ISE Program Guide: continued

Third Year	Qtr.	Grd	(48 credit hours)	F	W	S	R	
BME 419	3.0	___	___	Biofluid Mechanics ----- (ME 212, MTH 233, ME 315)	•	x	•	•
EE 301	4.0	___	___	Circuit Analysis I ----- (MTH 233, PHY 242, EE 302c)	a	x	a	a
EE 302	1.0	___	___	Circuit Analysis I Laboratory ----- (EE 301c)	a	x	a	a
EE 321	4.0	___	___	Linear Systems I ----- (EE 301, EE 302)	a	a	x	a
ELECTIVE	4.0	___	___	-----	a	a	x	a
ISE 307	4.0	___	___	Industrial Ergonomics ----- (ISE 306)	x	•	a	•
ISE 465	4.0	___	___	Interactive Sys. Modeling Anal. & Design ----- (CEG 220 or 1 of CS 240,241,242)	•	•	x	•
ISE 470	4.0	___	___	Deterministic Operations Research Models ----- (MTH 253, MTH 231)	x	•	•	•
ISE 471	4.0	___	___	System Performance Modeling ----- (ISE 302, ISE 306)	•	x	•	•
ISE 481	4.0	___	___	Engineering Economy ----- (MTH 229)	•	x	•	•
ISE 482	4.0	___	___	Facilities Layout & Organization ----- (ISE 499, ISE 471)	•	•	x	•
ME 315	4.0	___	___	Thermodynamics I ----- (PHY 244, MTH 232c)	x	a	a	a
MS 307	4.0	___	___	Introduction to Operations Management ----- (CEG 220)	x	a	a	a
Credit Hours Per Quarter in the Model Program -----				16	16	16		

Fourth Year	Qtr.	Grd	(47 credit hours)	F	W	S	R	
BME 440	4.0	___	___	Biomaterials ----- (ME 213, EE 321)	x	•	•	•
ELECTIVE	3.0	___	___	-----	a	x	a	a
ELECTIVE	4.0	___	___	-----	a	a	x	a
ISE 451	4.0	___	___	Computer Systems Design ----- (CEG 220, ISE 301)	•	•	x	•
ISE 472	3.0	___	___	Design I ----- (ISE 465, ISE 482)	x	•	•	•
ISE 473	3.0	___	___	Design II ----- (ISE 472)	•	x	•	•
ISE 474	3.0	___	___	Design III ----- (ISE 473)	•	•	x	•
ISE 483	4.0	___	___	Integrated Systems for Manufacturing ----- (MTH 231, ISE 301, ISE 470, ISE 471 co-requisite)	•	•	x	•
ME 220	3.0	___	___	Manufacturing Processes -----	x	•	•	•
___	204	4.0	___	General Education -----	a	x	a	a
___	___	4.0	___	Non-Western World -----	a	x	a	a
___	___	4.0	___	Human Expression -----	x	a	a	a
___	___	4.0	___	Human Behavior -----	x	a	a	a
Credit Hours Per Quarter in the Model Program -----				18	14	15		
TOTAL PROGRAM CREDIT HOURS -----				197				

TECHNICAL ELECTIVES:

Technical electives represent a focus area and must be approved by student's advisor. Approved focus areas are listed below:

ISE Honors Undergraduate Thesis: ISE 499-9, ISE 499-10 and one technical course approved by advisor.

Human Integrated Systems: PSY 110, ISE 431, and ISE 480.

Information and Computer Systems: Select three classes from: CS 241, CS 242, MTH 257, CS 400, and CS 405. (Students who complete all courses in this focus area and meet departmental requirements in CSE receive a minor in Computer Science for Engineers and Scientists)

Operations Management: MS 320, and two technical courses approved by advisor. (Students who meet requirements in COBA receive a minor in Operations Management from the College of Business and Administration)

Materials Science and Engineering: ME 370, ME 371, and ME 472 (Students who meet additional requirements in the Department of Mechanical and Materials Engineering receive a minor in Materials Science and Engineering)