



Bachelor of Science Industrial & Systems Engineering 2004-2005

Student's Name _____ SSN _____

First Year	Qtr.	Grd	(52 credit hours)	F	W	S	R	
CEG 220	4.0	___	___	Introduction to "C" Programming For Engineers-----	a	x	a	•
CHM 121	5.0	___	___	Submicroscopic Chemistry-----	x	a	•	a
EGR 101	5.0	___	___	Introductory Mathematics for Engineering Applications -----	x	a	a	•
EGR 190	4.0	___	___	Fundamentals of Engineering and Computer Science (for freshmen only, others must take ISE 210)	x	a	a	•
ENG 101	4.0	___	___	Academic Writing and Reading -----	x	a	a	a
ENG 102	4.0	___	___	Writing in Academic Discourse-----	a	x	a	a
ISE 195	4.0	___	___	Fundamentals of Industrial & Systems Engineering -----	•	•	x	•
MTH 229	5.0	___	___	Calculus I -----	a	x	a	a
PHY 200	1.0	___	___	General Physics I Laboratory-----	•	•	x	a
PHY 240	4.0	___	___	General Physics I-----	•	•	x	a
___	4.0	___	___	General Education select one from Area II History -----	a	x	a	a
___	4.0	___	___	General Education select one from Area II Non-Western World -----	a	a	x	a
PSY 105	4.0	___	___	General Education Area III: Psychology: The Science of Behavior -	a	a	x	a
Credit Hours Per Quarter in the Model Program -----				18	17	17		

Second Year	Qtr.	Grd	(55 credit hours)	F	W	S	R	
EGR 335	3.0	___	___	Technical Communication for Engineers and Computer Scientist-----	a	a	x	a
___	4.0	___	___	General Education select one from Area III -----	a	a	x	a
ISE 301	4.0	___	___	Statistical Methods for Testing, Development and Manuf. I-----	x	a	a	•
ISE 302	4.0	___	___	Statistical Methods for Testing, Development and Manuf. II -----	•	x	a	•
ISE 406	4.0	___	___	Human Factors in Engineering & Design-----	x	•	•	•
ME 212	4.0	___	___	Statics-----	a	x	a	a
ME 213	4.0	___	___	Dynamics -----	a	a	x	a
MTH 230	5.0	___	___	Calculus II-----	x	a	a	a
MTH 231	5.0	___	___	Calculus III-----	a	x	a	a
*MTH 253	3.0	___	___	Elementary Matrix Algebra -----	a	a	x	a
___	4.0	___	___	General Education select one from Area IV -----	a	a	x	a
PHY 202	1.0	___	___	General Physics II Laboratory-----	x	a	•	a
PHY 242	4.0	___	___	General Physics II -----	x	a	•	a
PHY 204	1.0	___	___	General Physics III Laboratory-----	•	x	a	•
PHY 244	5.0	___	___	General Physics III -----	•	x	a	•
Credit Hours Per Quarter in the Model Program -----				18	19	18		

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.

2004-2005 ISE Program Guide: continued

Third Year	Qtr.	Grd	(50 credit hours)	F	W	S	R	
EE 301	4.0	___	___	Circuit Analysis I -----(EGR 101, 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
___	4.0	___	___	General Education select additional course from Areas II, III and IV (See GE section of UG Catalog)	a	x	a	a
___	4.0	___	___	General Education select additional course from Areas II, III and IV (See GE section of UG Catalog)	a	a	x	a
ISE 407	4.0	___	___	Industrial Ergonomics-----	x	•	a	•
ISE 465	4.0	___	___	Interactive Sys. Modeling Anal. & Design ----- (CEG 220 or 1 of CEG 221, CS 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)	•	x	•	•
ISE 482	4.0	___	___	Operations and Facilities Design ----- (ISE 471)	•	•	x	•
ISE 484	4.0	___	___	Probabilistic Operations Research Models ----- (ISE 306, ISE 470)	•	x	•	•
ME 315	4.0	___	___	Thermodynamics I----- (PHY 244, MTH 232c)	x	a	a	a
MTH 232	5.0	___	___	Calculus IV ----- (MTH 231)	x	a	a	a

Credit Hours Per Quarter in the Model Program ----- 17 17 16

Fourth Year	Qtr.	Grd	(41 credit hours)	F	W	S	R	
BME 428	4.0	___	___	Biomechanics and Biothermodynamics ----- (ME 212, ME 315)	•	•	x	•
EGR 482	3.0	___	___	Engineering Fundamentals -----)	•	x	•	•
ELECTIVE	4.0	___	___	-----	x	a	a	a
ELECTIVE	4.0	___	___	-----	a	x	a	a
ISE 451	4.0	___	___	Industrial & Systems Engineering in Computer Systems Design ----- (ISE 450, CEG 220, ISE 301)	•	•	x	•
ISE 472	3.0	___	___	Design I----- (ISE 471)	x	•	•	•
ISE 473	3.0	___	___	Design II----- (ISE 472)	•	x	•	•
ISE 474	3.0	___	___	Design III----- (ISE 473)	•	•	x	•
ISE 481	4.0	___	___	Engineering Economy ----- (MTH 229 or EGR 101)	•	x	•	•
ISE 483	4.0	___	___	Integrated Systems for Manufacturing ----- (MTH 231, ISE 301, ISE 470, ISE 471)	•	•	x	•
*MTH 233	5.0	___	___	Differential Equations----- (MTH 231)	x	a	a	a

Credit Hours Per Quarter in the Model Program ----- 12 14 15

TOTAL PROGRAM CREDIT HOURS ----- 198*

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 and ISE 499-10.

Human Integrated Systems: PSY 110 and ISE 431.

Operations Management: MS 307 and MS 320. (Students who meet requirements in COBA receive a minor in Operations Management from the College of Business and Administration).

Ergonomic Systems: BME 420 and ISE 480.

Computer Science: CS 240 and CS 241. (Students who meet additional requirements in the Department of Computer Science and Engineering receive a minor in Computer Science for Engineers and Scientists)

Computer Systems: CEG 305 and CEG 330.

Materials Science and Engineering: Select two: ME 220, 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).

* MTH 233 and MTH 253 will be replaced by a 4-5 credit hour integrated course yielding a required minimum total of 194-195 program credit hours.