



**WRIGHT STATE
UNIVERSITY**

**Bachelor of Science
Industrial and Systems
Engineering**

2007-2008

Student's Name _____ UID # _____

First Year	Qtr	Grade	(50 credit hours)	Pre/Co-requisites	Fa	Wi	Sp	Su
CEG 220	4.0	_____	_____	Introduction to "C" Programming For Engineers (EGR 101 or MTH 229)	a	X	a	a
CHM 121	3.0	_____	_____	General Chemistry I..... (High School Chemistry or CHM 101, MTH 127)	X	a	•	a
CHM 125	2.0	_____	_____	General Chemistry I Lab (High School Chemistry or CHM 101, MTH 127)	X	a	•	a
EGR 101	5.0	_____	_____	Introductory Mathematics for Engineering Applications..... (MPL 5 + HS Trig or MTH 131)	X	a	a	a
EGR 190	4.0	_____	_____	Fundamentals of Engineering and Computer Science .. (freshmen only, others 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(C or better in ENG 101)	a	X	a	a
ISE 195	2.0	_____	_____	Fundamentals of Industrial and Systems Engineering.....	•	•	X	•
MTH 229	5.0	_____	_____	Calculus I(MTH 131 or MPL 7)	a	X	a	a
PHY 240	4.0	_____	_____	General Physics I.....(EGR 101 or MTH 229, PHY 200c)	a	•	X	•
PHY 200	1.0	_____	_____	General Physics I Laboratory..... (PHY 240c)	a	•	X	•
PSY 105	4.0	_____	_____	General Education Area III: Psychology: The Science of Behavior.....(See GE sec of UG Cat)	a	a	X	a
_____	4.0	_____	_____	General Education select one from Area II History.....(See GE sec of UG Cat)	a	X	a	a
_____	4.0	_____	_____	General Education select one from Area II Non-Western World.....(See GE sec of UG Cat)	a	a	X	a
Credit Hours Per Quarter in the Model Program.....					18	17	15	0

Second Year	Qtr	Grade	(50 credit hours)	Pre/Co-requisites	Fa	Wi	Sp	Su
ISE 301	4.0	_____	_____	Statistical Methods for Testing, Development and Manuf. I (MTH 230 or EGR 101)	X	a	a	•
ISE 302	4.0	_____	_____	Statistical Methods for Testing, Development and Manuf. II (ISE 301)	•	X	•	•
ISE 406	4.0	_____	_____	Human Factors in Engineering and Design..... (PSY 105)	X	•	•	•
ME 212	4.0	_____	_____	Statics (EGR 101 or MTH 231, PHY 240)	a	X	a	a
ME 213	4.0	_____	_____	Dynamics (CEG 220, ME 212)	a	a	X	a
MTH 230	5.0	_____	_____	Calculus II(MTH 229)	X	a	a	a
MTH 231	5.0	_____	_____	Calculus III(MTH 230)	a	X	a	a
MTH 235	5.0	_____	_____	Differential Equations with Matrix Algebra.....(MTH 231)	a	a	X	•
PHY 242	4.0	_____	_____	General Physics II.....(MTH 230, PHY 240, PHY 202c)	X	a	•	•
PHY 202	1.0	_____	_____	General Physics II Laboratory..... (PHY 242c)	X	a	•	•
PHY 244	5.0	_____	_____	General Physics III (MTH 230, PHY 240, PHY 204c)	•	a	X	•
PHY 204	1.0	_____	_____	General Physics III Laboratory..... (PHY 244c)	•	a	X	•
_____	4.0	_____	_____	General Education select one from Area III.....(See GE sec of UG Cat)	a	X	a	a
Credit Hours Per Quarter in the Model Program.....					18	17	15	0

Third Year	Qtr	Grade	(50 credit hours)	Pre/Co-requisites	Fa	Wi	Sp	Su
EE 301	4.0	_____	_____	Circuit Analysis I(EGR 101, PHY 242, EE 302c)	a	X	a	•
EE 302	1.0	_____	_____	Circuit Analysis I Laboratory (EE 301c)	a	X	a	•
EE 321	4.0	_____	_____	Linear Systems I.....(EE 301, EE 302)	a	a	X	a
ISE 407	4.0	_____	_____	Industrial Ergonomics.....(ISE 301)	X	•	a	•
ISE 470	4.0	_____	_____	Deterministic Operations Research Models(MTH 230, MTH 235)	X	•	•	•
ISE 471	4.0	_____	_____	System Performance Modeling.....(ISE 302)	•	X	•	•
ISE 478	4.0	_____	_____	Computational Models for ISE (CEG 220, ISE 301, ISE 470)	•	•	X	•
ISE 484	4.0	_____	_____	Probabilistic Operations Research Models.....(ISE 301)	•	X	•	•
ME 315	4.0	_____	_____	Thermodynamics I(PHY 244, MTH 232c)	X	a	a	a
MTH 232	5.0	_____	_____	Calculus IV..... (MTH 231)	a	a	X	a
_____	4.0	_____	_____	General Education select one from Area IV..... (Se See GE sec of UG Cat)	X	a	a	a
_____	4.0	_____	_____	General Education select additional course from Areas II, III and IV ..(See GE sec of UG Cat)	a	X	a	a
_____	4.0	_____	_____	General Education select additional course from Areas II, III and IV ..(See GE sec of UG Cat)	a	a	X	a
Credit Hours Per Quarter in the Model Program.....					16	17	17	0

Fourth Year			Qtr	Grade	(45 credit hours)	Pre/Co-requisites	Fa	Wi	Sp	Su
BME	428	3.0	_____	_____	Biomechanics and Biothermodynamics.....	(ME 212, ME 315)	X	•	•	•
EGR	335	3.0	_____	_____	Technical Communication for Engineers and Computer Scientists.....	(ENG 101, ENG 102)	a	X	a	a
ISE	451	4.0	_____	_____	Industrial and Systems Engineering in Computer Systems Design	(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	477	4.0	_____	_____	Systems and Process Analysis	(ISE 301, ISE 471)	X	•	•	•
ISE	481	4.0	_____	_____	Engineering Economy	(MTH 229 or EGR 101)	•	X	•	•
ISE	482	4.0	_____	_____	Operations and Facilities Design	(ISE 470)	•	•	X	•
ISE	483	4.0	_____	_____	Integrated Systems for Manufacturing.....	(MTH 231, ISE 301, ISE 470, ISE 471)	•	•	X	•
TECH ELEC	4.0		_____	_____	(Must meet with advisor for approval).....		X	a	a	a
TECH ELEC	4.0		_____	_____	(Must meet with advisor for approval).....		a	X	a	a
Credit Hours Per Quarter in the Model Program.....							16	14	15	0

TOTAL PROGRAM CREDIT HOURS

195

_____ **Meets or exceeds ABET minimum requirement of 37.5% engineering credit hours (73.13 credit hours).**

Advisor Initials

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 when followed by "c" indicating a co-requisite course.

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: Select two: ISE 431, ISE 465 and PSY 110.
- Operations Management: MS 307 and MS 320. (Students who meet additional requirements in COBA receive a minor in Operations Management from the College of Business and Administration).
- Ergonomic Systems: ISE 480 and ISE 485.
- Computer Science: Select two: ISE 465, 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)
- 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).