



**WRIGHT STATE  
UNIVERSITY**

**Bachelor of Science  
Industrial and Systems  
Engineering**

2009-2010

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, MPL 4, CHM 125c)	X	a	•	a
CHM 125	2.0	_____	_____	General Chemistry I Lab..... (High School Chemistry or CHM 101, MPL 4, CHM 121c)	X	a	•	a
EGR 101	5.0	_____	_____	Introductory Mathematics for Engineering Applications ..... (MPL 5 + HS Trig or MTH 131)	X	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 higher 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 .....	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
<b>Credit Hours Per Quarter in the Model Program .....</b>					<b>18</b>	<b>17</b>	<b>15</b>	<b>0</b>

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 .....	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 .....	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 .....	•	a	X	•
_____	4.0	_____	_____	General Education select one from Area III..... (See GE sec of UG Cat)	a	X	a	a
<b>Credit Hours Per Quarter in the Model Program .....</b>					<b>18</b>	<b>17</b>	<b>15</b>	<b>0</b>

Third Year	Qtr	Grade	(50 credit hours)	Pre/Co-requisites	Fa	Wi	Sp	Su
EE 301	4.0	_____	_____	Circuit Analysis I..... (EGR 101 or MTH 230, PHY 242, EE 302c)	a	X	a	a
EE 302	1.0	_____	_____	Circuit Analysis I Laboratory .....	a	X	a	a
ISE 407	4.0	_____	_____	Industrial Ergonomics..... (ISE 301)	X	•	•	•
ISE 470	4.0	_____	_____	Deterministic Operations Research Models .....	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 482	4.0	_____	_____	Operations and Facilities Design .....	•	•	X	•
ISE 484	4.0	_____	_____	Probabilistic Operations Research Models..... (ISE 301)	•	X	•	•
ME 315	4.0	_____	_____	Thermodynamics I..... (EGR 101 or MTH 232 and PHY 240)	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..... (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
<b>Credit Hours Per Quarter in the Model Program .....</b>					<b>16</b>	<b>17</b>	<b>17</b>	<b>0</b>

Fourth Year			Qtr	Grade	(44 credit hours)	Pre/Co-requisites	Fa	Wi	Sp	Su
EGR	335	3.0	_____	_____	Technical Communication for Engineers and Computer Scientists.....	(ENG 101, ENG 102)	X	a	a	a
ISE	431	4.0	_____	_____	Visualization and Human Performance .....	(ISE 406)	•	X	•	•
ISE	451	4.0	_____	_____	Human-Computer Interaction and Usability Engineering.....	(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	483	4.0	_____	_____	Integrated Systems for Manufacturing.....	(MTH 231, ISE 301, ISE 470, ISE 471)	•	•	X	•
ISE	490	4.0	_____	_____	Technology Based Ventures.....		•	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	a	X	a
<b>Credit Hours Per Quarter in the Model Program .....</b>							<b>14</b>	<b>15</b>	<b>15</b>	<b>0</b>

**TOTAL PROGRAM CREDIT HOURS**

**194**

\_\_\_\_\_ Meets or exceeds ABET minimum requirement of 37.5% engineering credit hours (72.75 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: ISE 465 or ISE 480 and PSY 110.
- Supply Chain Management: SCM 307 and SCM 320. (Students who meet additional requirements in COBA receive a minor in Supply Chain 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).