



**WRIGHT STATE
UNIVERSITY**

Bachelor of Science in Electrical Engineering

Program Guide
2010-2011

Student's Name _____ UID# _____

Freshman Year	Qtr	Grade	(51 credit hours)	Pre/Co-requisites	Fa	Wi	Sp
ENG 101	4.0	WI	Academic Writing and Reading..... ("C" or better required)		X	a	a
ENG 102	4.0	WI	Writing in Academic Discourse..... ("C" or better required; see Note 2; ENG 101)		a	X	a
EE 160	4.0	WI	Digital Design with HDL..... (MPL 4 or MTH 127)		•	X	a
GEN ED	4.0		Choose from Area II (HST)..... (See Gen Ed section of Undergrad Catalog)		a	a	X
GEN ED	4.0		Choose from Area II (Non-West)..... (See Gen Ed section of Undergrad Catalog)		a	a	X
_____	3.0		Technical Elective..... (see note 7)		X	a	a
CHM 121	3.0		Submicroscopic Chemistry..... (see Note 3; CHM 101 and MTH 127)		X	a	•
CHM 125	2.0		Submicroscopic Chemistry Lab..... (CHM 121c)		X	a	•
MTH 229	5.0		Calculus I..... ("C" or better required in MTH 229 and MTH 230 or EGR 190; MTH 130 and 131)		a	X	a
EGR 101	5.0		Mathematics for Engineering Applications..... (MPL 5 + HS Trig or MTH 131)		X	a	a
CEG 220	4.0	D	Introduction to "C" For Engineers..... ("C" or better required; see Note 4; MTH 229 or EGR 101)		a	X	a
PHY 240	4.0		Physics I..... (see Note 3; EGR 101 or MTH 229, PHY 200c)		a	•	X
PHY 200	1.0		Physics I Laboratory..... (PHY 240c)		a	•	X
CEG 221	4.0		Advanced "C" For Engineers..... (see Note 5; CEG 220)		•	•	X
Credit Hours Per Quarter in the Model Program					17	17	17

Sophomore Year	Qtr	Grade	(54 credit hours)	Pre/Co-requisites	Fa	Wi	Sp
MTH 230	5.0		Calculus II..... ("C" or better required in MTH 229 and MTH 230 or EGR 190)		X	a	a
MTH 231	5.0		Calculus III..... (MTH 230)		a	a	X
PHY 242	4.0		Physics II..... (MTH 230, PHY 240, PHY 202c)		X	a	•
PHY 202	1.0		Physics II Laboratory..... (PHY 242c)		X	a	•
PHY 244	5.0		Physics III..... (MTH 230, PHY 240, PHY 204c)		•	X	a
PHY 204	1.0	WI	Physics III Laboratory..... (PHY 244c)		•	X	a
GEN ED	4.0		Choose from Area III..... (See Gen Ed section of the Undergraduate Catalog)		X	a	a
GEN ED	4.0		Choose from Area III..... (See Gen Ed section of the Undergraduate Catalog)		a	X	a
EE 260	4.0	D	Digital Computer Hardware/Switching Circuits..... (CEG 220)		X	a	a
EE 301	4.0	D	Circuit Analysis I..... (EGR 101 or MTH 230, PHY 242, EE 302c)		a	X	a
EE 302	1.0	D	Circuit Analysis I Laboratory..... (EE 301c)		a	X	a
EE 303	3.0	D	Circuit Analysis II..... (EE 301, EE 302, EE 304c)		•	a	X
EE 304	1.0	D	Circuit Analysis II Laboratory..... (EE 303c)		a	a	X
EE 321	4.0		Linear Systems I..... (EE 301, EE 302)		a	a	X
ME 212	4.0	D	Statics..... (PHY 240, MTH 231)		a	X	a
ME 213	4.0		Dynamics..... (ME 212/CEG 220)		a	a	X
Credit Hours Per Quarter in the Model Program					18	19	17

Junior Year	Qtr	Grade	(50 credit hours)	Pre/Co-requisites	Fa	Wi	Sp
MTH 232	5.0		Calculus IV..... (MTH 231)		a	X	a
MTH 235	5.0		Differential Equations with Matrix Algebra..... (MTH 231)		X	a	a
EE 322	4.0	D	Linear Systems II..... (EE 321)		•	X	a
EE 331	3.0	D	Electronic Devices..... (EE 301, EE 302, EE 332c)		X	a	a
EE 332	1.0		Electronic Devices Laboratory..... (EE 301, EE 302, EE 331c)		X	a	a
EE 345	4.0		Electromagnetics..... (MTH 232, EE 301, EE 302)		•	a	X
EE 413	3.0	D	Control Systems I..... (ME 213, EE 321, EE 414c)		X	•	a
EE 414	1.0		Control Systems I Laboratory..... (EE 413c)		X	•	a
EE 421	4.0	D	Communication Theory..... (EE 321)		a	•	X
EE 431	3.0	D	Electronic Circuits..... (EE 321, EE 331, EE 332, EE 303c, EE 304c, EE 432c)		•	X	a
EE 432	1.0	D	Electronic Circuits Laboratory..... (EE 331, EE 332, EE 431c)		•	X	a
EE 325	4.0		Numerical Methods..... (CEG 220, MTH 253 or MTH 235, EE 301, ME 213)		a	•	X
GEN ED	4.0		Choose from Area IV..... (See Gen Ed section of the Undergraduate Catalog)		a	X	a
EE ___	4.0		Engineering Elective..... (see Note 8)		X	•	a
EE ___	4.0		Engineering Elective.....		a	a	X
Credit Hours Per Quarter in the Model Program					17	17	16

Senior Year	Qtr	Grade	(43 credit hours)	Pre/Co-requisites	Fa	Wi	Sp
STT 363	3.0		Statistical Methods.....(MTH 232; see Note 6)		X	a	a
EGR 335	3.0		Technical Communications..... (ENG 101, ENG 102, Sophomore Status)		a	X	a
CEG 411	4.0	D	Microprocessor-Based System Design..... (EE 301, EE 302, EE 260)		•	X	•
EE	3.0		Engineering Elective..... (See Note 8)		X	a	a
EE	4.0		Engineering Elective..... (See Note 8)		X	a	a
EE	4.0		Engineering Elective..... (See Note 8)		a	X	a
EE	4.0		Engineering Elective..... (See Note 8)		a	a	X
EE	3.0		Engineering Elective..... (See Note 8)		a	X	a
GEN ED	4.0		Choose from Area II, III or IV..... (See Gen Ed section of the UG Catalog; Note 9)		a	a	X
GEN ED	4.0		Choose from Area II, III or IV..... (See Gen Ed section of the UG Catalog; Note 9)		a	a	X
---	4.0		Technical Elective..... (see Note 7)		X	a	a
---	3.0		Technical Elective..... (see Note 7)		a	a	X
Credit Hours Per Quarter in the Model Program					14	14	15

TOTAL PROGRAM CREDIT HOURS

198.0

Design Sequence I: Electronic Circuits				Pre/Co-requisites	Fa	Wi	Sp
EE 444	4.0	D	Linear Integrated Circuits..... (EE 431, EE 432)		a	•	•
EE 451	4.0	D	Digital Systems Design..... (EE 260)		a	a	a
EE 454	4.0	D	VLSI Design..... (EE 431, EE 432, EE 451)		a	a	•
EE 481	3.0	D WI	Senior Design Project I..... (EE 454)		a	a	•
EE 482	3.0	D WI	Senior Design Project II..... (EE 481)		•	a	a

Design Sequence II: Control Systems				Pre/Co-requisites	Fa	Wi	Sp
EE 415	3.0	D	Control Systems II..... (EE 413, EE 414)		•	X	•
EE 416	1.0	D	Control Systems II Lab..... (EE 415c)		•	X	•
EE 417**	3.0	D	Digital Control Systems..... (EE 322, EE 415)		•	•	X
EE 420	1.0	D	Digital Control Systems Lab..... (CEG 411, EE 415, EE 416, EE 417c)		•	•	X
EE 481	3.0	D WI	Senior Design Project I..... (EE 415 and 416)		a	X	•
EE 482	3.0	D WI	Senior Design Project II..... (EE 481)		•	a	X

Design Sequence III: Communication/Signal Processing				Pre/Co-requisites	Fa	Wi	Sp
Choose two of the following three marked with an asterisk (*).							
EE 436*	4.0	D	Digital Signal Processing..... (CEG 220 and EE 322)		a	•	•
EE 437*	4.0	D	Modern Signal Processing..... (EE 322)		•	•	a
EE 473*	3.0	D	Wireless Communication I..... (EE 321, STT 363 or ISE 301 or EE 326)		•	a	•
EE 474*	1.0	D	Wireless Communication I Lab..... (EE 473 concurrently)		•	a	•
EE 481	3.0	D	Senior Design Project I..... (EE 436 or EE 437 or EE 473)		a	a	•
EE 482	3.0	D WI	Senior Design Project II..... (EE 481)		•	a	a

Design Sequence IV: Electromagnetics				Pre/Co-requisites	Fa	Wi	Sp
EE 442	4.0	D	Transmission Lines, Waveguides and Radiating Systems..... (EE 345)		a	•	•
EE 446	4.0	D	Microwave Circuit Design..... (EE 442)		•	a	•
EE 481	3.0	D WI	Senior Design Project I..... (EE 442)		a	a	•
EE 482	3.0	D WI	Senior Design Project II..... (EE 481)		•	a	a

** May substitute EE 419, Introduction to Intelligent Control Systems

NOTES :

- Use this guide, advisor consultations, the EE Department Handbook and the Undergraduate Catalog to carefully plan a program of study.
- In the right hand columns
 - (x) recommended quarter
 - (a) denotes courses likely to be available;
 - (•) denotes courses normally not available. Check the "Class Schedule" for current information.

Please direct all inquiries for summer course availability to the Electrical Engineering office.
Course numbers in parentheses denote a prerequisite course.
Course numbers followed by "c" indicate a co-requisite course.
- A grade of "C" or better is required in CHM 121 or PHY 240.
- Students wishing to develop additional skills in programming may want to consider a CS minor. Please see your advisor.
- Thermodynamics (ME 315) may be substituted for CEG 221.
- Students may choose to substitute EE 326 or ISE 301. Credit will not be given for both ISE 301 and STT 363. If ISE 301 or EE 326 is selected, the extra credit hour may be applied toward technical or engineering elective credits.
- Technical elective courses (7 credit hours required) are to be chosen from those numbered 200 or higher in the Colleges of Engineering and Computer Science, Science and Mathematics or Business and Administration and approved by the student's advisor. CS 205, CS 206 and redundant courses such as MTH 228, MS 204, EE 401/402 and co-listed courses may not be used to satisfy elective requirements.
- Engineering elective courses (26 credit hours required) are to be selected from those numbered 300 or above in the College of Engineering and Computer Science, and approved by the advisor. Transfer credits for engineering electives may be selected from upper level courses in an ABET accredited bachelors engineering program, and approved by your Wright State engineering advisor. At least 20 of the 26 credits are to be from EE course numbers. At least one design sequence is to be completed.
- Select two additional courses from Areas II, III, or IV, one course from two of these three areas. Except for Area II, the course selected must come from a different subcategory than the course(s) chosen to meet the area requirement.
- See your advisor to determine the number of General Education Writing Intensive courses required to be completed.

