

Bachelor of Science in Electrical & Computer Engineering Technology Program Guide 2017-2018

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Stuc	Student's Name UID#							
First	Year		Sem	Grade	(31 annual credit hours) Pre-requisites	Fa	Sp	Su
ENG	1100	3.0		0.445	Academic Writing and ReadingACT 23 or SAT Verbal 530 or WPL 40	*	а	a
EE	1000	1.0			Intro to Electrical Engineering.	*	•	•
MTH	2300	4.0			Calculus IMTH 1350 or MPL 50	*	а	а
		3.0			Social Sciences (E-5)	*	a	a
EE.	2020	3.0			Introduction to MechatronicsMPL 40 or MTH 1280 with a minimum grade of C	*	а	•
EE	2020L	1.0			Introduction to Mechatronics LaboratoryEE 2020c	*	а	•
EE	2000	3.0			Digital Design with HDLMPL 40 or MTH 1280 with a minimum grade of C	а	*	•
EE	2000L	1.0			Digital Design with HDL Laboratory(MPL 40 or MTH 1280 with a minimum grade of C), EE 2000c	a	*	•
CEG	2170	4.0			Introduction to C Programming	a	*	•
PHY	2400	4.0			General Physics I(C or higher in EGR 1010 or MTH 2300), PHY 2400Lc, and PHY 2400Rc	a	*	а
PHY	2400L	1.0			General Physics I Laboratory	a	*	a
MTH	2310	4.0			Calculus II	а	*	a
					Credit Hours per Semester in the Model Program		17	0
Seco	nd Year	•	Sem	Grade	(34 annual credit hours) Pre-requisites	Fa	Sp	Su
PHY	2410	4.0			General Physics IIMTH 2310c, PHY 2400, PHY 2410Lc, and PHY 2410Rc	*	а	а
PHY	2410L	1.0			General Physics II LaboratoryPHY 2410c	*	а	а
EE	2010	3.0			Circuit Analysis I(C or better in ENG 1100 and MTH 2310) and PHY 2410/Lc	*	а	•
EE	2010L	1.0			Circuit Analysis I LaboratoryEE 2010c	*	а	•
EE	4120	3.0			Industrial ControlsEE 2000/L	*	а	•
EE	4120L	1.0			Industrial Controls LabEE 4120c	*	а	•
CEG	2171	4.0			C++ Programming for Scientists & Engineers	а	*	•
CEG	2171L	0.0			C++ Programming for Scientists & Engineers Lab	а	*	•
EE	3510	3.0			Continuous and Discrete Linear Systems	а	*	•
EE	3310	3.0			Electronic Devices and CircuitsMTH 2300, (C or higher in EE 2010/L)	а	\star	•
EE	3310L	1.0			Electronic Devices and Circuits Laboratory	а	\star	•
EGR	3350	3.0			Technical Communication for Engineers and ScientistsENG 1100 & full major standing (Note 11)	а	\star	а
		3.0			Arts/Humanities (E-4)Note 7	а	\star	а
					Credit Hours per Semester in the Model Program	. 17	17	0
Third	d Year		Sem	Grade	(29 annual credit hours) Pre-requisites	Fa	Sp	Su
EE	3520	3.0		0.445	Digital and Feedback Control Systems	*	a	•
EE	3520L	1.0			Digital and Feedback Control Systems Lab	*	а	
CS	2200	4.0			Discrete Structures and Their AlgorithmsMPL 40 or MTH 1280 C or higher in CS 1200, CS 2200Rc		а	
CS	2200R	0.0			Discrete Structures and Their Algorithms Recitation	÷	2	•
CEG		3.0			Computer Organization	*	•	•
CEG	3310L	1.0			Computer Organization Lab	*	•	•
CEG		4.0			Operating System Concepts and Usage	*	а	•
CEG		0.0			Operating System Concepts and Usage Lab	*	a	•
EE		3.0			Digital Integrated Circuit Design(C or higher in EE 2000/L), (C or higher in EE 3210) or CEG 3320	a	a ≠	
EE		1.0			Digital Integrated Circuit Design(C of higher in EL 2000/L), (C of higher in EL 3210) of CLG 3320 Digital Integrated Circuit Design Laboratory	a	*	•
	.0200				Digital integrated chean beergn Euberatory	u		

Four	rth Year	Sem	Grade	(26 annual credit hours)	Pre-requisites	Fa	Sp	Su
EE	4910	3.0 iw		Senior Design Project I	ment Permission	*	•	•

Data Structures & Algorithms..(C or higher in CS 1181, CEG 3310), CEG 2350, MTH 2570 or CS 2200 a

3100

CS

1.0 3.0

3.0 3.0

		4.0	Technical ElectiveNot	9 🖈	•	•
		3.0	Technical ElectiveNot	9 🖈	•	•
		3.0	Global Traditions (E-3)Noti	e 7 🖈	a	а
EE	4920	3.0 iw	Senior Design Project IIEE 49	10 •	*	•
		4.0	Technical Elective	9 •	*	•
		3.0	Technical Elective	9 a	*	•
		3.0	Social Sciences (E-5)	e7 a	*	а
			Credit Hours per Semester in the Model Program	13	3 13	0

TOTAL PROGRAM CREDIT HOURS

120.0

Suggested Technical Electives

EE	3210	3.0		Linear Systems I(C or higher in EE 2010/L), (C or higher in CEG 2170), MTH 2310	*	а	•
EE	4000	3.0	 	Linear Systems II(C or higher in EE 3210), MTH 2310	*	а	•
EE	4210/L	3.0	 	Digital CommunicationEE 4000	а	\star	•
EE	4130	3.0	 	Continuous Control Systems (C or higher in EE 3210 or ME 3210), MTH 2310	\star	а	•
EE	4540/L	4.0	 	VLSI DesignEE 2000/L	*	а	•
EE	4100	3.0	 	Micro/Nano fab EngineeringEE 3310/L, PHY 2410/L	*	•	•
CEG	4330	3.0	 	Microprocessor- Embedded Sys	*	а	•

NOTES:

- Advising is mandatory in order to assure timely completion of the program. Please see a department advisor as soon as possible to ensure enrollment in the proper courses.
- Students must meet full major requirements (24+ credit hours completed, 2.25 cumulative grade point average, C or higher in ENG 1100, PHY 2400/2400L, CEG 2170, and (EGR 1010 or MTH 2300) before being allowed to complete junior or senior level coursework.
- 3. In the right hand columns, (*) denotes the model schedule for a full-time student, (a) denotes "tentatively available", and (•) denotes "not available"
- 4. The course(s) on the right side of the guide denote a prerequisite or a co-requisite course. A course number followed by "c", such as (PHY ####c), denotes a co-requisite (can or must be taken at the same time).
- 5. See the Undergraduate Catalog for the Wright State Core requirements.
- 6. In addition to ENG 1100 and EGR 3350 or ENG 2140, students are required to complete two Integrated Writing "iw" courses from the Wright State Core. This may include the "iw" course EGR 1010.
- 7. Students must also complete two Multicultural Competence courses "MC" courses from the Wright State Core. Refer to the university catalog for additional information.
- 8. At least one focus area must be completed in its entirety. Additional courses outside the focus area may be taken as technical electives.
- 9. Technical electives are 2000+ level courses from colleges of Engineering, Science and Math, or Business. Science courses should be natural or physical science courses. Students may take one of the following 1000-level courses: EGR1010, MTH1350, EGR1980, CS1160, CS1180, or ME1020. Redundant coursework (i.e. ISE 2211, MS 2040, STT 3630, STT 2640) will not be accepted. In addition, technical electives may include 1 semester hour of internship credit (EE4810, EE4820, or EE4830). The department also has a suggest list of technical elective course above.
- 10. **Senior Design I (EE 4910) requires Department Permission.** Students can only be admitted to S.D. if they have completed at least 30 hours of EE course work or they are within two semesters of completing the BSEE program on an advisor approved program of study.
- 11. Student may take EGR 3350 or ENG 2100 or ENG 2140 to meet the program's technical writing requirement.