Name: _____ **UID:** _____ **Reviewed by:** _____ **Date:** _____

Directions:
Refer to the WSU Catalog and BSEE Program description on the back side of this sheet and create a list of courses by term. Meet with a program advisor to review the graduation plan at the start of the program and periodically throughout to make sure all courses satisfy requirements for Wright State University, the College of Computer Science and Engineering, and the Department of Electrical Engineering. The model below is a 4-year plan for a student who begins without prior college credit.

Year 1. EE pre-major. Beginning math, science, electrical engineering, and WSU Core. Courses are generally available fall and spring.

Course	CR	WSU Core	Sem	Gr	Title (Prerequisites)
ENG 1100	3	E1			Academic Writing and Reading .... (ACT 23 or SAT Verbal 530 or WPL 40)
	3	E5, IW/MC			Any non-EC Social Science in WSU Core .... (see catalog)
MTH 2300	4	E2			Calculus I .... (MTH 1350 or MPL 50 or ALEKS 76)
CHM 1210/L/R	5	E6			General Chemistry I w/ Lab & Recit. .... (HS CHM or CHM 1010), (MTH 1280 or ALEKS 46)
EE 1000	1				Intro to Electrical Engineering ....(enrolled in CECS)
MTH 2310	4	E2			Calculus II .... (MTH 2300)
PHY 2400/L	5	E6			General Physics I and Lab .... (MTH 2300)
EE 2000/L	4				Digital Design with HDL and Lab ....(MPL 30 or MTH 1280 minimum of C)
CS 1180/L	4				Computer Science I and Lab (recommended) ....(MPL 40 or MTH 1280 minimum of C)
	33				Credit hours per semester in the model program: Fa (16), Sp (17)

Year 2. EE pre-major and beginning full-major. Math, science, electrical engineering, and WSU Core. Courses are generally available fall and spring.

Course	CR	WSU Core	Sem	Gr	Title (Prerequisites)
	3	E4, IW/MC			Any Arts/Humanities in WSU Core .... (see catalog)
MTH 2320	4	E2			Calculus III .... (MTH 2310)
PHY 2410/L	5	E6			General Physics II and Lab .... (PHY 2400/L and MTH 2300)
EE 2010/L	4				Analog Circuit Theory and Lab .... (ENG 1100 minimum of C, MTH 2310 and PHY 2410/L coreq)
MTH 2350	4				Differential Equations with Matrix Algebra .... (MTH 2310)
EE 3210	3				Linear Systems I .... (EE 2010/L minimum of C and MTH 2310)
EE 3310/L	4				Elec. Devices & Circuits and Lab .... (EE 2010/L minimum of C and MTH 2300)
EGR 3350	3	E1			Tech Comm for Engineers & Comp Scientists .... (ENG 1100)
	30				Credit hours per semester in the model program: Fa (16), Sp (14)

Year 3. EE full-major. Advanced math, electrical engineering, and WSU Core. Courses are generally available fall and spring.

Course	CR	WSU Core	Sem	Gr	Title (Prerequisites)
EE 3450/L	4				Intro Electromagnetics and Lab .... (EE 2010/L minimum of C, MTH 2320 and PHY 2410/L)
EE 4130/L	4				Cont. Control Systems and Lab .... (EE 3210 minimum of C and MTH 2310)
EE 4000	3				Linear Systems II .... (EE 3210 minimum of C and MTH 2310)
	3				4000-level EE course, excludes EE4910/4920/4810/4820/4830 .... (see catalog)
EE 3260	3				Random Signals and Noise .... (EE 4000 minimum of C and MTH 2350)
EE 4210/L	4				Digital Communication with Lab .... (EE 4000 minimum of C)
EE 4620/L	4				Dig. Integrated Circuit Design with PLDs and FPGAs and Lab .... (EE 2000/L minimum of C)
	4				4000-level EE course with Lab, excludes EE4910/4920/4810/4820/4830 .... (see catalog)
	29				Credit hours per semester in the model program: Fa (14), Sp (15)

Year 4. EE full-major. Electrical engineering senior design and WSU Core. Courses are generally available fall and spring.

Course	CR	WSU Core	Sem	Gr	Title (Prerequisites)
	3	E3, IW/MC			Any Global Traditions (Interdisciplinary Global Studies) in WSU Core .... (see catalog)
	3	E3			CLS 1500 or HST 1100 or HST 1200 .... (see catalog)
EE 4910	3				Electrical Engr. Senior Design Project I .... (Department approval)
	3				Department approved Tech Elective .... (see catalog)
	3				General Elective .... (see catalog)
	3	E5, IW/MC			Any IW/MC economics (EC) course from Social Science in WSU Core .... (see catalog)
EE 4920	3				Electrical Engr. Senior Design Project II .... (Department approval)
	3				Department approved Tech Elective .... (see catalog)
	4				General Elective .... (see catalog)
	28				Credit hours per semester in the model program: Fa (15), Sp (13)

The **Bachelor of Science in Electrical Engineering (BSEE)** program requires 120 hours of course work from Wright State University (WSU) Core, Pre-major, Full-major, Technical Electives, Senior Design, and General Elective courses.

A. 43-44 hours of WSU Core (see Table 1).

WSU Core consists of at least 38 hours (Hrs) from six areas called Elements and includes two integrated writing (IW) and two multicultural competency (MC) courses.

Reference: https://www.wright.edu/academic-affairs/programs/general-education/program-requirements,

Table 1. WSU Core courses in BSEE program.

WSU Core by Element	Hrs	Acceptable for BSEE
E-1 Communications – 1st year	3	ENG 1100
E-1 Communications – 2nd year	3	EGR 3350
E-2 Mathematics	4	MTH 2300
E-3 Global Traditions – History	3	CLS 1500 or HST 1100 or HST 1200
E-3 Global Traditions – Interdisciplinary Global Studies	3	Any E-3 (IW,MC) course
E-4 Arts/Humanities	3	Any E-4 (IW,MC) course
E-5 Social Science (1st category)	6	Any E-5 (IW,MC) course in Economics (EC)
E-5 Social Science (2nd category)		Any E-5 (IW,MC) non-EC course
E-6 Natural Science with lab	5	PHY 2400/L/R
E-6 Natural Science with lab	5	PHY 2410/L/R
Additional WSU Core from E-2	4	MTH 2310
Additional WSU Core from E-6	4-5	CHM 1210/L/R or BIO 1120 or BIO 1150
Total hours from WSU Core	**43-44**	

B. 13 hours of Pre-major courses (see Table 2).

Students are admitted with pre-major status to the College of Computer Science and Engineering upon completion of 24 or more semester hours of college-level work, a 2.25 cumulative GPA at Wright State and in all academic work, a C or higher in ENG 1100, and completion of EE 1000, EE 2000, EE 2000L, EE 2010, EE 2020L, MTH 2300, MTH 2310, MTH 2320 or MTH 2350, CHM 1210/1210L or BIO 1120/1120L or BIO 1150/1150L, PHY 2400/2400/L, PHY 2410/2410L, CS 1160 or CS 1180 or CEG 2170, and 3 hours of integrated writing in WSU Core beyond ENG 1100. Promotion to full-major occurs upon completion of the pre-major courses listed in Table 2.

Table 2. Pre-major courses in BSEE program.

Course	Hrs	Prerequisites
EE 1000 Introduction to Electrical Engineering	1	CECS student
EE 2000 Digital Design with HDL	3	MTH 2300 (minimum of C)
EE 2000L Digital Design with HDL Lab	1	EE 2000 co-requisite
EE 2010 Analog Circuit Theory	3	MTH 2300 (minimum of C)
EE 2010L Analog Circuit Theory Lab	1	EE 2010 co-requisite
Plus one computer programming course from:	4	
CEG 2170 Intro to C Prog. for Scientists and Engineers, or		MTH 2300 satisfies programming course prerequisites
CS 1160 Intro to Computer Programming I, or		
CS 1180 Computer Science I with Lab		
Total hours from pre-major	**13**	

C. 40 hours of Full-major courses (see Table 3).

Students must satisfactorily complete the BSEE pre-major courses listed in Table 2 before registering for full-major EE courses listed in Table 3.

Table 3. Full-major courses in BSEE program.

Course	Hrs	Acceptable for BSEE
MTH 2320 Calculus III	4	MTH 2310 (minimum of D)
MTH 2350 Differential Equations with Matrix Algebra	4	MTH 2310 (minimum of D)
EE 3260 Random Signals and Noise	3	EE 4000 (minimum of C) and MTH 2350 (minimum of D)
EE 3210 Linear Systems I	3	EE 2010 (minimum of C) and either programming course (minimum of C) or MTH 2310 (minimum of D)
EE 3310 Electronic Devices and Circuits	3	EE 2010 and EE 2010L (each minimum of C) and MTH 2300 (minimum of D)
EE 3310L Electronic Devices & Circuits Lab	1	
EE 3450 Intro to Electromagnetics	3	EE 2010 and EE 2010L (each minimum of C) and PHY 2410 and PHY 2410L (each minimum of D) and MTH 2320 (minimum of D)
EE 3450L Electromagnetics Lab	1	
EE 4000 Linear Systems II	3	EE 3210 (minimum of C) and MTH 2310 (minimum of D)
EE 4130 Continuous Control Systems	3	EE 3210 (minimum of C) and MTH 2310 (minimum of D)
EE 4130L Continuous Control Systems Lab	1	
EE 4210 Digital Communications	3	EE 4000 (minimum of C)
EE 4210L Digital Comms. Lab	1	
EE 4620 Digital Integrated Circuit Design with PLDs and FPGAs	3	EE 2000 and EE 2000L (each minimum of C)
EE 4620L Digital Integrated Circuit Design with PLDs and FPGAs Lab	1	
EE 4000-level courses with at least one lab and excluding EE 4910, EE 4920, EE 4810, EE 4820, EE 4830	7	See catalog for individual courses
Total hours from full-major	**44**	

D. 8 hours of Technical Electives.

Students complete 2000+ level courses from College of Engineering and Computer Science, or College of Science and Math, or College of Business. Science courses must be natural or physical science courses. Students may take one of the following 1000-level courses: EGR1010, MTH1350, CS1161, CS1181, or ME1020. Redundant coursework (e.g. ISE 2211, MS 2040, STT 3630, STT 2640) will not be accepted. Technical electives may include 1 semester hour of internship credit (EE4810, EE4820, or EE4830), and may include 3 hours of study abroad (EGR4980) with department approval.

E. 6 hours of EE Senior Design Project.

Students must complete BSEE Full-major courses listed in Table 3 and have an overall WSU GPA of 2.0 in order to receive EE Department approval to register for EE 4910 and EE 4920.

Table 4. Senior Design courses in BSEE program.

Course	Hrs	Prerequisites
EE 4910 EE Senior Design Project I	3	EE Department approval
EE 4920 EE Senior Design Project II	3	EE Department approval
Total hours of senior design	**6**	

F. 6 hours of General Elective courses.

General Elective courses may be selected from all WSU courses at the 1000 level or above. Courses may not be redundant with any course in WSU Core, Pre-major, Full-major courses, or Technical Electives.

Revised: March 14, 2020
EE UGS reviewed: April 24, 2020 and corrected May 21, 2020.