

Arkansas State University - Jonesboro
Bachelor of Science
Major: Electrical Engineering
2013-2014

Students requiring developmental course work based on low entrance exam scores (ACT, SAT, ASSET, COMPASS) may not be able to complete this program of study in eight (8) semesters. Developmental courses do not count toward total degree hours. **Students having completed college level courses prior to enrollment will be assisted by their advisor in making appropriate substitutions. In most cases, general education courses may be interchanged between semesters.** A minimum of 45 hours of upper division credit (3000-4000 level) is required for this degree. Mandatory state and institutional assessment exams will be required during your degree program. **Failure to participate in required assessments may delay graduation.**

Year 1				Year 1			
Fall Semester				Spring Semester			
Course No.	Course Name	Hrs	Gen Ed	Course No.	Course Name	Hrs	Gen Ed
COMS 1203	Oral Communications	3	X	CHEM 1011	Lab for General Chemistry	1	X
ENG 1003	Composition I	3	X	CHEM 1013	General Chemistry	3	X
ENGR 1402	Concepts of Engineering	2		ENG 1013	Composition II	3	X
MATH 2204	Calculus I	4	X	ENGR 1412	Software Applications for Engineers	2	
Humanities Elective	See below for listing of courses to fulfill General Education requirements	3	X	MATH 2214	Calculus II	4	X
				PHYS 2034	University Physics	4	X
Total Hours		15		Total Hours		17	
Year 2				Year 2			
Fall Semester				Spring Semester			
Course No.	Course Name	Hrs	Gen Ed	Course No.	Course Name	Hrs	Gen Ed
ENGR 2403	Statics	3		EE 3313	Electric Circuits II	3	
ENGR 2421	Lab for Electric Circuits I	1		ENGR 2411	Lab for Mechanics of Materials	1	
ENGR 2423	Electric Circuits	3		ENGR 2413	Mechanics of Materials	3	
MATH 3254	Calculus III	4	X	MATH 4403	Differential Equations	3	
ENGR 2401	Applied Engineering Stat	1		ENGR 3443	Engineering Thermodynamics I	3	
CS 2114	Structured Programming	4		PHYS 2044	University Physics II	4	
Total Hours		16		Total Hours		17	
Year 3				Year 3			
Fall Semester				Spring Semester			
Course No.	Course Name	Hrs	Gen Ed	Course No.	Course Name	Hrs	Gen Ed
EE 3333	Digital Electronics I	3		EE 4773 OR EE 3303	Intermediate Electrical Engineering Lab OR Lab for Semiconductor/Optoelectronic Materials & Devices I	3	

EE 3353	Continuous & Analog Systems	3		EE 4373 OR EE 3363	Electronics II OR Semiconductor Materials & Devices	3	
EE 3343	Engineering Fields & Waves I	3		ENGR 3423	Dynamics	3	
CHEM 1023	General Chemistry II	3		Fine Arts Elective	See below for listing of courses to fulfill General Education requirements	3	X
EE 3401	Lab for Electronics	1		ENGR 4413	Engineering Problem Solving	3	
EE 3403	Electronics	3		Engineering Elective	Advisor approval required	2	
Total Hours		16		Total Hours		17	
Year 4				Year 4			
Fall Semester				Spring Semester			
Course No.	Course Name	Hrs	Gen Ed	Course No.	Course Name	Hrs	Gen Ed
EE 4383 OR EE 4313	Digital Electronics II OR Control Systems	3		EE 4323 OR EE 4353	Electrical Machinery OR Power Systems	3	
ENGR 3433	Engineering Economics	3		ENGR 4482	Senior Design II	2	
EE 3383	Principles and Practices in Electrical Engineering	3		Approved Technical Elective	Advisor approval required	3	
EE 4333	Communications Theory	3		Social Science Elective	See below for listing of courses to fulfill General Education requirements	3	X
ENGR 4463	Senior Design I	3		ENGR 4453	Num. Methods for Engineers	3	
ENGR 4401	Senior Seminar	1					
Total Hours		16		Total Hours		14	
Total Degree Hours						128	

General Education Curriculum for Engineering Baccalaureate Degrees

	Semester Hours
Communication	9
ENG 1003, Freshman English I ENG 1013, Freshman English II SCOM 1203, Oral Communications	
Mathematics	4
MATH 2204, Calculus I	
Arts and Humanities	6
Fine Arts. Select one of the following: Humanities. Select one of the following:	
MUS 2503, Fine Arts – Musical ENG 2003, Intro. to the Lit. of the Western World I	
THEA 2503, Fine Arts – Theater ENG 2013, Intro. to the Lit. of the Western World II	
ART 2503, Fine Arts – Visual PHIL 1103, Introduction to Philosophy	
Social Sciences	11
Select one of the following:	
HIST 2763, The United States to 1876	
HIST 2773, The United States since 1876	
POSC 2103, Introduction to United States Government	
Substitution of Higher Math (8hrs required): MATH 2214, Calculus II AND MATH 3254, Calculus III	
Science	8
CHEM 1013, General Chemistry I, and CHEM 1011, Laboratory for General Chemistry I	
PHYS 2034, University Physics I	
	38

Other rules:

A course may be counted in satisfaction of only one area requirement. With the exception of English courses (ENG), no more than two selections may have the same prefix.

Additional required support courses:

MATH 4403, Differential Equations	3
PHYS 2044, University Physics II	4
	7

Engineering Core Courses:

ENGR 1402, Concepts of Engineering	2
ENGR 1412, Software Applications for Engineers	2
ENGR 2401, Applied Engineering Statistics	1
ENGR 2403, Statics	3
ENGR 2413 and ENGR 2411, Mechanics of Materials and Lab. for Mechanics of Materials	4
ENGR 2423 and ENGR 2421, Electric Circuits I and Laboratory for Electric Circuits	4
ENGR 3423, Dynamics	3
ENGR 3433, Engineering Economics	3
ENGR 3443, Engineering Thermodynamics I	3
ENGR 4401 Senior Engineering Seminar	1
ENGR 4453, Numerical Methods for Engineers	3
ENGR 4463, Senior Design I	3
ENGR 4482, Senior Design II	2
	34

Electrical Engineering Major Courses:

EE 3401, Laboratory for Electronics I	1
EE 3403, Electronics I	3
EE 3313, Electric Circuits II	3
EE 3333, Digital Electronics I	3
EE 3343, Engineering Fields and Waves I	3
EE 3353, Continuous and Analog Systems	3
EE 4323, Electrical Machinery OR EE 4353, Power Systems	3
EE 4333, Communications Theory	3
EE 4373, Electronics II OR EE 3363, Semiconductor Materials and Devices I	3
EE 4773, Intermediate EE Laboratory I OR	
EE 3303, Laboratory for Semiconductor/Optoelectronic Materials and Devices I	3
EE 4383, Digital Electronics II OR EE 4313, Control Systems	3
ENGR 4413, Engineering Problem Solving	3
CHEM 1023, General Chemistry II	3
CS 2114 Structured Programming	4
EE 3383, Principles and Practices in Electrical Engineering	3
Approved Electives	3
Engineering Elective	2
	49