

Electrical Engineering B.S.E.E.

Electrical Engineering B.S.E.E. Eight-Semester Degree Program

The following section contains the list of courses required for the Bachelor of Science in Electrical Engineering and a suggested eight-semester sequence. See the Eight-Semester Degree Policy (<http://catalog.uark.edu/undergraduatecatalog/academicregulations/eightsemesterdegreecompletionpolicy/>) for more details. Not all courses are offered every semester, so students who deviate from the suggested sequence must pay careful attention to course scheduling and course prerequisites.

First Year	Units	
	Fall	Spring
GNEG 11101 Introduction to Engineering I	1	
ENGL 10103 Composition I (ACTS Equivalency = ENGL 1013) (Satisfies General Education Outcome 1.1)	3	
MATH 24004 Calculus I (ACTS Equivalency = MATH 2405) (Satisfies General Education Outcome 2.1) ¹	4	
CHEM 14103 University Chemistry I (ACTS Equivalency = CHEM 1414 Lecture)	3	
Select one of the following (Satisfies General Education Outcome 4.2):	3	
HIST 20003 History of the American People to 1877 (ACTS Equivalency = HIST 2113)		
HIST 20103 History of the American People, 1877 to Present (ACTS Equivalency = HIST 2123)		
PLSC 20003 American National Government (ACTS Equivalency = PLSC 2003)		
GNEG 11201 Introduction to Engineering II		1
ENGL 10303 Technical Composition II (ACTS Equivalency = ENGL 1023) (Satisfies General Education Outcome 1.2)		3
MATH 25004 Calculus II		4
PHYS 20304 University Physics I (ACTS Equivalency = PHYS 2034) (Satisfies General Education Outcome 3.4)		4
Sophomore Science Elective ²		4
Year Total:	14	16

Second Year	Units	
	Fall	Spring
ELEG 21003 Electric Circuits I	3	
ELEG 21001 Electric Circuits I Laboratory	1	
MATH 25804 Elementary Differential Equations	4	
PHYS 20404 University Physics II (ACTS Equivalency = PHYS 2044 Lecture)	4	
Humanities Elective (Satisfies General Education Outcome 3.2 & 5.1) ³	3	

ELEG 21103 Electric Circuits II		3
ELEG 21101 Electric Circuits II Laboratory		1
CSCE 20004 Programming Foundations I		4
MATH 26004 Calculus III		4
ELEG 29004 Digital Design		4
Year Total:	15	16

Third Year	Units	
	Fall	Spring
ELEG 31204 System & Signal Analysis	4	
ELEG 32103 Electronics I	3	
ELEG 32101 Electronics I Laboratory	1	
ELEG 39204 Microprocessor Systems Design	4	
ELEG 37004 Applied Electromagnetics	4	
ELEG 31403 Probability & Stochastic Processes		3
ELEG 32203 Electronics II		3
ELEG 32201 Electronics II Laboratory		1
ELEG 33004 Energy Systems		4
Social Sciences Elective (Satisfies General Education Outcome 3.3 & 4.1) ⁴		3
Math/Science/Technical Elective ⁹		3
Year Total:	16	17

Fourth Year	Units	
	Fall	Spring
Engineering Science/Technical Elective ⁵	3	
Two Electrical Engineering Technical Elective ⁶	6	
ELEG 40603 Electrical Engineering Design I	3	
Select one of the following:	3	
ECON 21003 Principles of Macroeconomics (ACTS Equivalency = ECON 2103)		
ECON 22003 Principles of Microeconomics (ACTS Equivalency = ECON 2203)		
ECON 21403 Basic Economics: Theory and Practice		
Electrical Engineering Technical Elective ⁶		3
ELEG 40701 Electrical Engineering Design II (Satisfies General Education Outcome 6.1)		1
Two Technical Elective ¹⁰		6
Social Sciences Elective ⁷		3
Fine Arts Elective (Satisfies General Education Outcome 3.1) ⁸		3
Year Total:	15	16

Total Units in Sequence: 125

- Students have demonstrated successful completion of the learning indicators identified for learning outcome 2.1, by meeting the prerequisites for MATH 24004.
- CHEM 14203/CHEM 14201 or BIOL 10103/BIOL 10101 or BIOL 24103/BIOL 24001, or PHYS 20504 or GEOL 11103/GEOL 11101
- The Humanities Elective courses that satisfy General Education Outcomes 3.2 and 5.1 include: CLST 10003, CLST 100H3, CLST 10103, HUMN 112H4, PHIL 20003, PHIL 200H3, PHIL 21003.

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- 4 The Social Sciences Elective courses that satisfy General Education Outcomes 3.3 and 4.1 include: ANTH 10203, COMM 10203, HDFS 14003, HDFS 24103, HIST 11193, HIST 111H3, HIST 1123, HIST 112H3, HIST 20903, HUMN 111H4, HUMN 211H4, INST 28103, INST 281H3, PLSC 20103, PLSC 28103, PLSC 281H3, RESM 28503, SOCI 10103, SOCI 201H3, or SOCI 20103.
- 5 Engineering Science/Technical Elective: **Any Engineering/Science/Math Technical Elective** or one of these 2000 level courses: MEEG 20103, MEEG 23003, MEEG 24003, CHEG 23103, or INEG 24103
- 6 ELEG TECHNICAL ELECTIVES are defined as ELEG 4000 or ELEG 5000 level courses. CSCE 41104, CSCE 46103, or CSCE 42303 are approved ELEG Technical Electives for students pursuing a dual ELEG/CSCE undergraduate degree. Not more than 6 hours may be ELEG 4880V or ELEG 400HV courses.
- 7 The Social Sciences Elective courses which satisfy General Education Outcome 3.3 include: AGECE 11003, AGECE 21003, ANTH 10203, COMM 10203, ECON 21003, ECON 22003, ECON 21403, EDST 20003, HDFS 14003, HDFS 24103, HDFS 26003, HIST 11193, HIST 111H3, HIST 11293, HIST 112H3, HIST 20003, HIST 20103, HIST 20903, HUMN 111H4, HUMN 211H4, INST 2013, INST 28103, INST 281H3, PLSC 20003, PLSC 20103, PLSC 21003, PLSC 28103, PLSC 281H3, PSYC 20003, RESM 28503, SOCI 10103, SOCI 201H3, SOCI 20103. Note, courses cannot be counted twice in degree requirements.
- 8 The Fine Arts Elective courses which satisfy General Education Outcome 3.1 include: ARCH 10003, ARHS 10003, COMM 10003, DANC 10003, LARC 10003, MUSC 10003, MUSC 100H3, MUSC 10103, MUSC 101H3, MUSC 13303, THTR 10003, THTR 10103, or THTR 101H3.
- 9 MATH SCIENCE/TECHNICAL ELECTIVES: **Any Engineering/Science/Math Technical Elective**, suggested classes BIOL 10103/BIOL 10101, CHEM 14203/CHEM 14201, CHEM 35004, CHEM 36053, MATH 30803, MATH 44403, PHYS 35404, PHYS 35404, PHYS 36103, MEEG 27003 or STAT 30043.
- 10 TECHNICAL ELECTIVES are 3000 or above level courses in Math, Engineering, or the sciences after the approval by ELEG advisor. CSCE 20104, Programming 2, CSCE 22104, Computer Organization, and SEVI 52103 Business Foundations for Entrepreneurs are allowable non-ELEG technical electives. **Courses not eligible** for technical elective credit include ELEG 39003, ELEG 39903 and any history courses in math and the sciences (e.g., MATH 31303) .

Students should become very familiar with the Academic Regulations chapter for university requirements that apply to the electrical engineering program as well as the College of Engineering requirements (in particular the "D rule" and the "Transfer of Credit" for courses taken at another institution). Students are required to complete 40 hours of upper division courses (3000-4000 level). It is recommended that students consult with their adviser when making course selections. In addition to these graduation requirements, candidates for an electrical engineering degree must have earned a grade-point average of no less than 2.00 on all ELEG courses.