

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 1111 Introduction to Engineering I	1	
ENGL 1013 Composition I (ACTS Equivalency = ENGL 1013) (Satisfies General Education Outcome 1.1)	3	
MATH 2554 Calculus I (ACTS Equivalency = MATH 2405) (Satisfies General Education Outcome 2.1) ¹	4	
CHEM 1103 University Chemistry I (ACTS Equivalency = CHEM 1414 Lecture)	3	
Select one of the following (Satisfies General Education Outcome 4.2):	3	
HIST 2003 History of the American People to 1877 (ACTS Equivalency = HIST 2113)		
HIST 2013 History of the American People, 1877 to Present (ACTS Equivalency = HIST 2123)		
PLSC 2003 American National Government (ACTS Equivalency = PLSC 2003)		
GNEG 1121 Introduction to Engineering II		1
ENGL 1033 Technical Composition II (ACTS Equivalency = ENGL 1023) (Satisfies General Education Outcome 1.2)		3
MATH 2564 Calculus II (ACTS Equivalency = MATH 2505)		4
PHYS 2054 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 2103 Electric Circuits I	3	
ELEG 2101L Electric Circuits I Laboratory	1	
MATH 2584 Elementary Differential Equations	4	
PHYS 2074 University Physics II (ACTS Equivalency = PHYS 2044 Lecture)	4	

Humanities Elective (Satisfies General Education Outcome 3.2 & 5.1) ³	3	
ELEG 2113 Electric Circuits II		3
ELEG 2111L Electric Circuits II Laboratory		1
CSCE 2004 Programming Foundations I		4
MATH 2574 Calculus III (ACTS Equivalency = MATH 2603)		4
ELEG 2904 Digital Design		4
Year Total:	15	16

Third Year	Units	
	Fall	Spring
ELEG 3124 System & Signal Analysis	4	
ELEG 3213 Electronics I	3	
ELEG 3211L Electronics I Laboratory	1	
ELEG 3924 Microprocessor Systems Design	4	
ELEG 3704 Applied Electromagnetics	4	
ELEG 3143 Probability & Stochastic Processes		3
ELEG 3223 Electronics II		3
ELEG 3221L Electronics II Laboratory		1
ELEG 3304 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 4063 Electrical Engineering Design I	3	
Select one of the following:	3	
ECON 2013 Principles of Macroeconomics (ACTS Equivalency = ECON 2103)		
ECON 2023 Principles of Microeconomics (ACTS Equivalency = ECON 2203)		
ECON 2143 Basic Economics: Theory and Practice		
Electrical Engineering Technical Elective ⁶		3
ELEG 4071 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

¹ Students have demonstrated successful completion of the learning indicators identified for learning outcome 2.1, by meeting the prerequisites for MATH 2554.

² CHEM 1123/CHEM 1121L or BIOL 1543/BIOL 1541L or BIOL 2213/BIOL 2211L, or PHYS 2094 or GEOS 1113/GEOS 1111L

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- ³ The Humanities Elective courses that satisfy General Education Outcomes 3.2 and 5.1 include: CLST 1003, CLST 1003H, CLST 1013, HUMN 1124H, PHIL 2003, PHIL 2003C, PHIL 2003H, PHIL 2103, or PHIL 2103C.
- ⁴ The Social Sciences Elective courses that satisfy General Education Outcomes 3.3 and 4.1 include: ANTH 1023, COMM 1023, HDFS 1403, HDFS 2413, HIST 1113, HIST 1113H, HIST 1123, HIST 1123H, HIST 2093, HUMN 1114H, HUMN 2114H, INST 2013, INST 2813, INST 2813H, PLSC 2013, PLSC 2813, PLSC 2813H, RESM 2853, SOCI 2013, SOCI 2013H, or SOCI 2033.
- ⁵ Engineering Science/Technical Elective: **Any Engineering/Science/Math Technical Elective** or one of these 2000 level courses: MEEG 2013, MEEG 2303, MEEG 2403, CHEG 2313, or INEG 2413
- ⁶ ELEG TECHNICAL ELECTIVES are defined as ELEG 4000 or ELEG 5000 level courses. CSCE 4114, CSCE 4613, or CSCE 4233 are approved ELEG Technical Electives for students pursuing a dual ELEG/CSCE undergraduate degree. Not more than 6 hours may be ELEG 488V or ELEG 400VH courses.
- ⁷ The Social Sciences Elective courses which satisfy General Education Outcome 3.3 include: AGECE 1103, AGECE 2103, ANTH 1023, COMM 1023, ECON 2013, ECON 2023, ECON 2143, EDST 2003, HDFS 1403, HDFS 2413, HDFS 2603, HIST 1113, HIST 1113H, HIST 1123, HIST 1123H, HIST 2003, HIST 2013, HIST 2093, HUMN 1114H, HUMN 2114H, INST 2013, INST 2813, INST 2813H, PLSC 2003, PLSC 2013, PLSC 2203, PLSC 2813, PLSC 2813H, PSYC 2003, RESM 2853, SOCI 2013, SOCI 2013H, SOCI 2033. Note, courses cannot be counted twice in degree requirements.
- ⁸ The Fine Arts Elective courses which satisfy General Education Outcome 3.1 include: ARCH 1003, ARHS 1003, COMM 1003, DANC 1003, LARC 1003, MLIT 1003, MLIT 1003H, MLIT 1013, MLIT 1013H, MLIT 1333, THTR 1003, THTR 1013, or THTR 1013H.
- ⁹ MATH SCIENCE/TECHNICAL ELECTIVES: **Any Engineering/Science/Math Technical Elective**, suggested classes BIOL 1543/BIOL 1541L, CHEM 1123/CHEM 1121L, CHEM 3504, CHEM 3603, MATH 3083, MATH 4443, PHYS 3113, PHYS 3544, PHYS 3613, MEEG 2703 or STAT 3003.
- ¹⁰ TECHNICAL ELECTIVES are 3000 or above level courses in Math, Engineering, or the sciences after the approval by ELEG advisor. CSCE 2014, Programming 2, CSCE 2214, Computer Organization, and SEVI 5213 Business Foundations for Entrepreneurs are allowable non-ELEG technical electives. **Courses not eligible** for technical elective credit include ELEG 3903, ELEG 3933 and any history courses in math and the sciences (e.g., MATH 3133) .

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.