

# Physics B.S. with Electronics Concentration

## Physics B.S. with Electronics Concentration Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see the Eight-Semester Degree Policy (<http://catalog.uark.edu/undergraduatecatalog/academicregulations/eightsemesterdegreecompletionpolicy/>) in the Academic Regulations chapter for university requirements of the program as well as Fulbright College requirements.

University/state minimum core requirements may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute with general electives. Students should consult with their academic advisors.

First Year	Units	
	Fall	Spring
ENGL 1013 Composition I (ACTS Equivalency = ENGL 1013)	3	
MATH 2554 Calculus I (ACTS Equivalency = MATH 2405)	4	
PHYS 2054 University Physics I (ACTS Equivalency = PHYS 2034)	4	
Fine Arts university/state minimum core	3	
General Electives	1	
ENGL 1023 Composition II (ACTS Equivalency = ENGL 1023)		3
MATH 2564 Calculus II (ACTS Equivalency = MATH 2505)		4
PHYS 2074 University Physics II (ACTS Equivalency = PHYS 2044 Lecture)		4
Humanities university/state minimum core		3
General Electives		1
Year Total:	15	15

Second Year	Units	
	Fall	Spring
MATH 2574 Calculus III (ACTS Equivalency = MATH 2603)	4	
PHYS 2094 University Physics III	4	
Select one of the following four-hour science lecture/lab combinations:	4	
CHEM 1103 University Chemistry I (ACTS Equivalency = CHEM 1414 Lecture) & CHEM 1101L University Chemistry I Laboratory (ACTS Equivalency = CHEM 1414 Lab)		

CHEM 1123 University Chemistry II (ACTS Equivalency = CHEM 1424 Lecture) & CHEM 1121L University Chemistry II Laboratory (ACTS Equivalency = CHEM 1424 Lab)

CSCE 2004 Programming Foundations I

CSCE 2014 Programming Foundations II

BIOL 1543 Principles of Biology (ACTS Equivalency = BIOL 1014 Lecture) & BIOL 1541L Principles of Biology Laboratory (ACTS Equivalency = BIOL 1014 Lab) or BIOL 1584 Biology for Majors (ACTS Equivalency = BIOL 1014 Lecture)

GEOS 1113 Physical Geology (ACTS Equivalency = GEOL 1114 Lecture) & GEOS 1111L Physical Geology Laboratory (ACTS Equivalency = GEOL 1114 Lab)

GEOS 1133 Earth Science (ACTS Equivalency = GEOL 1124 Lecture) & GEOS 1131L Earth Science Laboratory (ACTS Equivalency = GEOL 1124 Lab)

or an approved four credit hours of other laboratory-based courses from these departments.

U.S. History university/state minimum core 3

MATH 2584 Elementary Differential Equations 4

PHYS 3213 Electronics in Experimental Physics 3

PHYS 3613 Modern Physics 3

Select one of the following four-hour science lecture/lab combinations: 4

    CHEM 1103 University Chemistry I (ACTS Equivalency = CHEM 1414 Lecture) & CHEM 1101L University Chemistry I Laboratory (ACTS Equivalency = CHEM 1414 Lab)

    CHEM 1123 University Chemistry II (ACTS Equivalency = CHEM 1424 Lecture) & CHEM 1121L University Chemistry II Laboratory (ACTS Equivalency = CHEM 1424 Lab)

    CSCE 2004 Programming Foundations I

    CSCE 2014 Programming Foundations II

    BIOL 1543 Principles of Biology (ACTS Equivalency = BIOL 1014 Lecture) & BIOL 1541L Principles of Biology Laboratory (ACTS Equivalency = BIOL 1014 Lab) or BIOL 1584 Biology for Majors (ACTS Equivalency = BIOL 1014 Lecture)

    GEOS 1113 Physical Geology (ACTS Equivalency = GEOL 1114 Lecture) & GEOS 1111L Physical Geology Laboratory (ACTS Equivalency = GEOL 1114 Lab)

    GEOS 1133 Earth Science (ACTS Equivalency = GEOL 1124 Lecture) & GEOS 1131L Earth Science Laboratory (ACTS Equivalency = GEOL 1124 Lab)

or an approved four credit hours of other laboratory-based courses from these departments.

General Electives		1
Year Total:	15	15

Third Year	Units	
	Fall	Spring
MATH 3083 Linear Algebra	3	
Any PHYS or ASTR course numbered 3000 or higher	3	
Social Sciences university/state minimum core	3	
General Electives	6	
PHYS 3453 Electromagnetic Theory I		3
PHYS 4333 Thermal Physics		3
Social Sciences university/state minimum core		3
General Electives		6
Year Total:	15	15

Fourth Year	Units	
	Fall	Spring
PHYS 4073 Introduction to Quantum Mechanics <sup>1,2</sup>	3	
Any PHYS or ASTR course numbered 3000 or higher	4	
Social Sciences university/state minimum core	3	
University Residency Requirement Electives	1	
General Electives	4	
PHYS 4991 Physics Senior Seminar <sup>1,2</sup>		1
Any PHYS or ASTR course numbered 3000 or higher		3
General Electives		11
Year Total:	15	15

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Total Units in Sequence: 120

<sup>1</sup> Meets 40-hour advanced credit hour requirement. See College Academic Regulations.

<sup>2</sup> Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations.

<sup>3</sup> Any PHYS or ASTR classes numbered 3000 or above.