

Physics - Science with Physics Concentration

Associate in Science

Minimum of 61 Credits

People in the physics concentration focus on the characteristics of matter and energy and their relationship to each other. Through courses in various types of physics, students investigate dynamics, magnetism, atomic and nuclear physics, heat, sound and other physical phenomena. In addition, students develop efficient investigative skills and learn to accurately analyze and report their findings. Students who earn associate degrees in science from Oklahoma City Community College are well prepared to continue their studies at a four-year college or university. After graduating, they find job opportunities in education, astronomy, geology and meteorology, as well as in government, private industry and with the aerospace industry.

Course #	Course Name	Credits	Type	Prerequisites
<i>Suggested Freshman 1st Semester</i>				
SCL 1001	SUCCESS IN COLLEGE AND LIFE	1	Life Skills	None
MATH 2104	CALCULUS AND ANALYTIC GEOMETRY I	4	Gen Ed	(R) (W), MATH 1533 and MATH 1613 or adequate Math Placement Test Score
CHEM 1115	GENERAL CHEMISTRY I	5	Gen Ed	(R) (W), MATH 1513 or MATH 1533 or both MATH 0123 and High School Chemistry or CHEM 0123 or CHEM 1123
ENGL 1113	ENGLISH COMPOSITION I	3	Gen Ed	(R) (W), Adequate reading and writing assessment scores or LS 0033 College Writing II, either taken within the last year, with strong encouragement for immediate continuation.
HUM	HUMANITIES ELECTIVE	3	Gen Ed	
<i>Suggested Freshman 2nd Semester</i>				
PHYS 2014	(B) ENGINEERING PHYSICS I	4	Major	(R) (W), MATH 2104 (or at least 4 hours of calculus) within the last year or Evaluation by Instructor Prerequisite or Corequisite: MATH 2214
MATH 2214	CALCULUS AND ANALYTIC GEOMETRY II	4	Gen Ed	(R) (W), MATH 2104 or equivalent within the last year
CHEM 1215	GENERAL CHEMISTRY II	5	Support	(R) (W), CHEM 1115 and either MATH 1513 or MATH 1533. A grade of "C" or better in CHEM 1115 is strongly recommended.
ENGL 1213	ENGLISH COMPOSITION II	3	Gen Ed	(R) (W), ENGL 1113 English Composition I taken within the last year, with strong encouragement for immediate continuation.
<i>Suggested Sophomore 1st Semester</i>				
PHYS 2114	(B) ENGINEERING PHYSICS II	4	Major	(R) (W), PHYS 2014 and MATH 2214 (or at least 8 hours of calculus) within the last year or Evaluation by Instructor Prerequisite or Corequisite: MATH 2314
MATH 2314	CALCULUS AND ANALYTIC GEOMETRY III	4	Major	(R) (W), MATH 2214 or equivalent within the last year
POLSC 1113	AMERICAN FEDERAL GOVERNMENT	3	Gen Ed	(R) (W)
BIO SC	ANY OF THE FOLLOWING BIOLOGICAL SCIENCE COURSES: BIO 1113, BIO 1114, BIO 2114, BIO 2125, BIO 2215, BIO 2343, OR BIO 2404	3-4	Gen Ed	
<i>Suggested Sophomore 2nd Semester</i>				
HIST 1483	U.S. HISTORY TO THE CIVIL WAR --OR--		Gen Ed	(R) (W)
HIST 1493	U.S. HISTORY SINCE THE CIVIL WAR	3	Gen Ed	(R) (W)
CS 1143	BEGINNING PROGRAMMING --OR--		Support	(R) (W) (M) or Evaluation by Instructor
FA ENGR	FACULTY APPROVED ENGINEERING ELECTIVE	3	Support	
SOC SC	SOCIAL SCIENCE ELECTIVE	3	Gen Ed	

Major Courses: (12 credit hours) Physics: (B)PHYS 2014; (B)PHYS 2114; Mathematics: MATH 2314

General Education Courses: (40-41 credit hours) English: ENGL 1113; ENGL 1213; History: HIST 1483 or HIST 1493; Political Science: POLSC 1113; Chemistry: CHEM 1115; Biological Science: Three to four credit hours of general education; Humanities: Six credit hours; Social Science: Three credit hours; Mathematics: MATH 2104; MATH 2214; General Education Elective: 2-3

Life Skills Courses: (1 credit hour) Life Skills: SCL 1001

Support Courses: (8 credit hours) Chemistry: CHEM 1215; Computer Programming or Engineering: CS 1143 or Faculty Advisor Approved Elective

Notes: This program is designed for students planning to continue their education at a four-year college or university. See University Parallel/Transfer Programs for information and requirements in the general information section of the catalog. For General Education Requirements, see the general information section of the catalog. (B) A grade of "B" or higher must be achieved.