Program: Science Education
Major: Science Education - Physics
Degree: Bachelor of Science in Education (B.S.Ed.)

Department: Engineering and Physics
College: Mathematics and Science
Major Code: 6044

University Core (Total Listed 42-44)

Specific courses within the University Core are listed on pages 95-96.
• Courses from the major may apply to the areas marked in the University Core.

• Written and Oral Communication........................................ 9

Quantitative Reasoning/Scientific Method ......................... 10-11
• Math........................................................................ 3
• Life Science ............................................................... 4
• Physical Science ......................................................... 3-4

Critical Inquiry and Aesthetic Analysis .............................. 6
Aesthetic Analysis ............................................................... 3
Critical Inquiry ........................................................................ 3

Support Courses .............................................................. 9-15

Support Courses
MCOM 1113 Fundamentals of Speech
ENG 1113 English Composition
ENG 1213 English Composition and Research
*MATH 1533 Precalculus-Algebra OR
  MATH 1513 College Algebra OR Placement Score AND
*MATH 1593 Plane Trigonometry OR Placement Score

*A grade of ‘C’ or better is required for either MATH 1513 or MATH 1533 and MATH 1593 to take MATH 2313.

Major Requirements

Science Education - Physics ............................................. 62

Science Education Core .................................................. 34
Biology ................................................................................. 9
Required courses:
BIO 1204 Biology for Majors: Principles
BIO 1225 Biology for Majors: Diversity

Chemistry ............................................................................ 10
Required courses:
CHEM 1103 General Chemistry I AND
CHEM 1112 General Chemistry I Recitation/Lab
CHEM 1223 General Chemistry II AND
CHEM 1232 General Chemistry II Recitation/Lab

Physics ................................................................................ 8
Required courses:
PHY 2014 Physics for Science and Engineering I and Lab
PHY 2114 Physics for Science and Engineering II and Lab

Earth Science ........................................................................ 4
Required course:
PHY 3014 Earth Science

Computer Science .............................................................. 3
Required course:
CMSC 1513 Beginning Programming

University Core (Total Listed 42-44)

American Historical and Political Analysis .......................... 6
American National Government ....................................... 3
American History ............................................................. 3

Cultural and Language Analysis ........................................... 3-4
Second Language .............................................................. 4
OR
Cultural Analysis .............................................................. 3

Social and Behavioral Analysis ............................................. 3

Life Skills .............................................................................. 5
Required Health Course ..................................................... 2
Elective Life Skills ............................................................... 3

Science Education - Physics ............................................. 28

Math Courses .................................................................... 15
MATH 2313 Calculus 1
MATH 2323 Calculus 2
MATH 2333 Calculus 3
MATH 2343 Calculus 4
MATH 3103 Differential Equations

Physics and Engineering Courses ...................................... 13
ENGR 2033 Statics
ENGR 2043 Dynamics
ENGR 3303 Engineering Probability and Statistics
ENGR 2303 Electrical Science
ENGR 2311 Electrical Science Lab

Professional Education ....................................................... 31
PTE 1010 Introduction to Teacher Education
PTE 3023 Foundations of American Education/Clinical Exp
PTE 3153 Adolescent Psychology
SPED 4123 Teaching Individuals with Disabilities
^BIO 4812 Teaching and Learning in Science Classrooms
^BIO 4853 General Methods of Teaching Science and Lab
^PTE 4172 Educational Assessment
^PTE 4533 Contemporary Learning Sciences
^PTE 4811 Contemporary Issues
^PTE 4838 Internship/Student Teaching Secondary
^PTE 4853 Classroom Management & Instruction

^ Admission to Teacher Education required
#To be taken the same semester

Minimum Hours required ............................................. 125*

*Total hours required for this major may exceed the minimum 124 credit hour institutional requirement and will vary according to course selection. It is recommended students complete high school algebra II, trigonometry, and two years of a second language in high school.

- CONTINUED ON NEXT PAGE -
Minimum Graduation Requirements

1. Overall GPA in all college course work .................................. 2.50
2. Average in course work at UCO .............................................. 2.00
3. Courses in English Composition, Fundamentals of Speech, Professional Education, and area of specialization (major)....... “C”
4. Proficiency in foreign language ................................. Novice 4 level

For other regulations pertaining to graduation, see pages 66-67 of the 2019-2020 catalog.