GENERAL SCIENCE, MINOR - TEACHING

Middle Childhood/Early Adolescence (Code 120-403)

The MCEA science minor prepares students to teach a breadth of science areas in Grades 1-8. A minimum of 24 semester credits is required to fulfill the science minor. To prepare to teach in Grades 1-8, courses in certain science areas are required.

For advising, contact the Education Studies Department.

Required of all MCEA students:
BIOL 105 General Biology 3-4
or BIOL 151 Biology of Humans

AND one of the following: 4-5
CHEM 103 General Chemistry I
or CHEM 105 General Chemistry I Lecture
& CHEM 106 and General Chemistry I Laboratory
GEOL 106 Earth Science
GEOL 110 Physical Geology
PHYS 100 Physical Science

Total: 7-8 credits (1 biological & 1 physical science lab science)

Remaining 16-17 credits must include the science area not taken from the MCEA required science courses (i.e. physical or earth/space) but is not limited to the courses listed above. MCEA science minor students should complete a course in physical, life, and earth/space sciences. Therefore, remaining credits may be taken from any of the science areas listed below. A variety of science areas is recommended to increase breadth of science knowledge.

Select courses from the following:

Biology
BIOL 130 Human Sexual Biology 3
BIOL 151 Biology of Humans 4
BIOL 180 Environmental Biology and Conservation 1
BIOL 181 Environmental Biology and Conservation Lab 1
BIOL 195 Plants and Society 4
BIOL 196 Human Nutrition 3
BIOL 214 Human Anatomy and Physiology I 4
BIOL 311 General Entomology 4

Chemistry
CHEM 100 Chemistry: Issues and Answers 3
CHEM 103 General Chemistry I 4-5
or CHEM 105 General Chemistry I Lecture
& CHEM 106 and General Chemistry I Laboratory
CHEM 104 General Chemistry II 4
or CHEM 109 General Chemistry II with Lab
CHEM 115 Chemical Principles 6
CHEM 121 Elementary Chemical Education 1
CHEM 127 Chemistry and Climate 3
CHEM 150 Survey of Biochemistry 3
CHEM 191 Current Topics in Chemistry 1-3
CHEM 304 Environmental Chemistry 3
CHEM 399 Independent Study - Juniors 1-3

Geology
GEOL 102 Oceanography 3
GEOL 106 Earth Science 4
GEOL 115 Environmental Geology 4
GEOL 122 The Future of Global Energy 3
GEOL 201 Geology of Our National Parks and Monuments 2

GEOL 301 Earth Resources 3
GEOL 303 Rocky Mountain Field Studies 3
GEOL 308 Water Resources 3
GEOL 312 Mineralogy and Petrology I 5

Geography
GEOG 104 The Physical Environment 4
GEOG 178 Conservation of the Environment 1
GEOG 304 Introduction to Geomorphology 4
GEOG 340 Climatology 3
GEOG 361 Environmental Hazards 3

Physics
PHYS 100 Physical Science 4
PHYS 115 Survey of Astronomy 3
PHYS 205 Physics of Renewable Energy 4
PHYS 211 General Physics 5
PHYS 212 General Physics 4
PHYS 226 Astronomy-Solar System 4
PHYS 229 Astronomy-Stars and Galaxies 4
PHYS 308 Science of Musical Sound 3
PHYS 315 The Mysterious Universe 3

Environmental Public Health
ENPH 110 Introduction to Environmental Health 3
ENPH 150 Disease Detectives: Epidemics and Data 3

Environmental Studies
ENV 101 Sustainability Basics and Beyond 4
ENV 140 Water Problems, Water Solutions 3
ENV 291 Special Topics - Environmental Studies 1-3

1 Only one of GEOG 178 or BIOL 180 may be included in the minor.

This minor is restricted to students in the College of Education and Human Sciences: Education Studies: Option A and leads to licensure to teach General Science in Middle Childhood through Early Adolescence classrooms.