

EARTH SCIENCE TRACK - BA

Degree: This track offers a B.A. degree.

Perspective:

This track offers a broad perspective on the different disciplines that comprise Earth Science.

Intended Audience:

This track is ideal for K-12 teachers that are enrolled in the dual co-major with Early Childhood, Elementary (http://www.njcu.edu/sites/default/files/ba_early_childhood_p3k6_9-1-16_2.pdf), Middle School (http://www.njcu.edu/sites/default/files/ba_elementary_ed_k-6_middle_9-1-16_0.pdf) or Secondary Education (<http://www.njcu.edu/elementarysecondary-education/secondary-education>) or for students with a general interest in Earth Science without an education major.

General Education Program:

Students complete four Tier 1 seminars (12 credits) and six Tier 2 seminars (18 credits) with at least two seminars in each of the four Modes of Inquiry; they take a total of ten seminars (30 credits) across Tiers 1 and 2.

REQUIREMENTS

Mathematics (3-4 Credits):

___ MATH 140 Statistics (3) Recommended for Early Childhood & Elementary Education **OR**

___ MATH 175 Enhanced Precalculus (4) Recommended for Middle/Secondary Education

Related Natural Sciences (12-13 Credits):

___ BIOL 224 The Human Body (3) or BIOL 225 Human Sexual Biology (3) for Education majors **OR**

___ BIOL 130 Principles Biology I (4) for non-education majors

___ CHEM 100 Prep for Chem (3)

___ PHYS 101 Basic Concepts of Physics (3)

___ PHYS 113 Intro to Astronomy (3)

Earth Science Core Curriculum (23 Credits):

___ EESC 114 Introduction to Meteorology (3) (or EESC 2xx Wonders of Weather)

- EESC 115 Introduction to Oceanography (3) (or EESC 2xx The Blue Planet)
- EESC 135 Our Planet Earth (3) (or EESC 112 Introduction to Geology)
- EESC 201 Environmental Science for All (3) (or EESC 109 Principles of Environmental Science)
- EESC 221 Essential Methods of Geology (3) (or EESC 2xx Hands on Earth)
- EESC 246 Earth Materials (4)
- EESC 334 Stratigraphy (4)

Earth Science Electives (15 credits): Choose **any 200+ level EESC course**, At least 2 or more courses have to be at the 300+ level. Only 1 GIS course will count toward elective credit, if the student is in the GIS Certificate program.

- EESC 209 Urban Environmental Issues & Policy (3)
- EESC 226 Earth 360 Integrated Geography (3)
- EESC 231 Water Chronicles (3)
- EESC 235 Global Climate Change (3)
- EESC 250 Plunder: The Race for Natural Resources (3)
- EESC 252 GIS I: Contemporary Applications of GIS (3)
- EESC 336 Field Methods (4)
- EESC 340 Hydrology I (3)
- EESC 348 Environmental Geology (3)
- EESC 350 GIS II Contemp Analysis w/GIS (3)
- EESC 410 Urban Soil Survey (4)
- EESC 434 Earth Surface Processes (4)
- EESC 446 Introduction to Geochemistry (3)
- EESC 447 Intro to Geophysics (3)
- EESC 455 GIS III: Modeling with GIS (3)

*For education majors the State of New Jersey requires **12 Credit Hours of advanced courses (300 or higher)** for **Earth Science Teacher Certification**