PALEOBIOLOGY MINOR (GEOL)

Program Director: John Merck, Ph.D.

The minor in Paleobiology will provide students with a broad understanding of the application of the methods of biology and geology to the study of the history of life, and develop students’ appreciation of how issues in the study of paleobiology connect with larger trends in those sciences. It is intended for all students with an interest in the study of the history of life, be it professional or avocational.

REQUIREMENTS

Depending on optional course(s) taken, a total of 21 – 24 credits are required (see prerequisites (p. 1)). All courses presented for the minor must be passed with a grade of C- or better.

Course Title Credits

Fundamental Courses

BSCI160 & BSCI161 Principles of Ecology and Evolution and Principles of Ecology and Evolution Lab 4

One of the following: 4

GEOL100 Physical Geology
& GEOL110 Physical Geology Laboratory

GEOL120 Environmental Geology
& GEOL110 Physical Geology Laboratory

Introductory Life History or Organismal Biology

One of the following: 3-4

GEOL102 Historical Geology
GEOL104 Dinosaurs: A Natural History
GEOL204 Dinosaurs, Early Humans, Ancestors, and Evolution; The Fossil Record of Vanished Worlds of the Prehistoric Past

BSCI207 Principles of Biology III - Organismal Biology

BSCI222 Principles of Genetics

Upper-Level Paleobiology

One of the following: 4

BSCI333/GEOL331 Principles of Paleontology

BSCI392/ BSCI393 Biology of Extinct Animals and Biology of Extinct Animals Laboratory

Electives

Two courses (one from Biology and one from Geology) selected from the following: 6-8

BSCI333/GEOL331 Principles of Paleontology (if not taken to satisfy the requirement above)

BSCI334 Mammalogy

BSCI361 Principles of Ecology

BSCI363 The Biology of Conservation and Extinction

BSCI392 Biology of Extinct Animals

& BSCI393 and Biology of Extinct Animals Laboratory (if not taken to satisfy the requirement above)

BSCI370 Principles of Evolution

BSCI399 Biology Department Research 1

GEOL342 Sedimentation and Stratigraphy

GEOL431 Vertebrate Paleobiology

GEOL436 Principles of Biogeochemistry

GEOL437 Global Climate Change: Past and Present

GEOL499 Special Problems in Geology

Or another appropriate biology or geology course approved in advance by the Entomology or Geology advisor

Total Credits 21-24

1 The Paleobiology Minor requires 3 cumulative credits of BSCI399 to count as elective. Research topic must be approved by GEOL or ENTM advisor.

Prerequisites

Required Courses

The following required courses have prerequisites (as indicated in the course description):

- BSCI207 Principles of Biology III - Organismal Biology
- BSCI222 Principles of Genetics
- GEOL102 Historical Geology
- BSCI333 Principles of Paleontology or GEOL331 (cross-listed)
- BSCI392 Biology of Extinct Animals and BSCI393 (lab)

Of these, only BSCI207 and BSCI222 have supporting prerequisites not already required for the minor.

Optional Courses

The following optional courses have prerequisites (as indicated in the course description):

- BSCI333 Principles of Paleontology or GEOL331 (cross-listed)
- BSCI334 Mammalogy
- BSCI361 Principles of Ecology
- BSCI363 The Biology of Conservation and Extinction
- BSCI392 Biology of Extinct Animals and BSCI393 (lab)
- BSCI370 Principles of Evolution
- GEOL342 Sedimentation and Stratigraphy
- GEOL431 Vertebrate Paleobiology
- GEOL436 Principles of Biogeochemistry
- GEOL437 Global Climate Change: Past and Present

Of these, only BSCI334, BSCI361, GEOL342, GEOL436, and GEOL437 have supporting prerequisites not already required for the minor.