

The Paleobiology concentration requires BIOL 101 [11]*, 101L [11L]; replaces GEOL 404 [53] with GEOL 419 [132] (BIOL 478 [110]), and replaces GEOL 601 & 602 [128 & 129] with GEOL 413 [137] and another approved field course or experience in biology or paleontology. Paleobiology students are encouraged but not required to take a course in systematics at Duke University, and a course in vertebrate paleontology at North Carolina State University (inter-university enrollment is possible through a UNC-Duke-NC State cooperative agreement).

Contact person: [Dr. Drew S. Coleman](#), undergraduate advisor in Geology

Departmental requirements:

- One of the following** (students may receive credit for only one of 101 [11], 105 [13], 109 [18] and 111 [41]):
 - GEOL 101 [11], 101L [11L] Physical Geology (4 hours, fall and spring)
 - GEOL 103 [12] The Marine Environment (3 hours, fall and spring)
 - GEOL 105 [13], 101L [13L] The Violent Earth (4 hours, spring)
 - GEOL 109 [18], 109L [18L] Earth, Climate and Life (3 + 1 hours, fall and spring)
 - GEOL 111 [41] Physical Geology for Science Majors (4 hours, fall or spring).

- All of the following:**
 - GEOL 159 [16], 159L [16L] Prehistoric Life with lab (3 + 1 hours, spring)
 - GEOL 301 [52] Earth Materials (4 hours, fall; prereq. GEOL 101 [11] or 111 [41] or permission; prereq. or coreq. CHEM 101 [11]).
 - GEOL 401 [58] Structural Geology (4 hours, fall; prereq. one of GEOL 101 [11], 103 [12], 105 [13], 109 [18], or 111 [41]).
 - GEOL 402 [57] Sedimentology and Stratigraphy (4 hours, spring; prereq. GEOL 101 [11] or 111 [41] or equiv. and 301 [52])
 - GEOL 413 [137] Field Paleontology (4 hours, fall, even-numbered years)
 - GEOL 419 [132] (= BIOL 478 [110]) Invertebrate Paleontology (4 hours, fall, odd-numbered years)
 - BIOL 101 [11], 101L [11L] Principles of Biology with lab (3 + 1 hours, fall, spring, and summer)
 - CHEM 101 [11], 101L [11L] General Descriptive Chemistry I with lab (4 hours, fall, spring, and summer)
 - CHEM 102 [21], 102L [21L] General Descriptive Chemistry II with lab (4 hours, fall, spring, and summer)
 - MATH 231 [31] Calculus of Functions of One Variable I (3 hours, fall and spring; prereq. grade of C- or better in MATH 130 [30] or placement)
 - MATH 232 [32] Calculus of Functions of One Variable II (3 hours, fall and spring; prereq. grade of C- or better in MATH 231 [31] or placement)

- One of the following:**
 - GEOL 390 [199] Field-oriented research in paleontology (4 hours, spring or fall)
 - GEOL 434 [123] Marine Carbonate Environments (4 hours, spring)
 - GEOL 691-692 [98-99] Honors Course in field-oriented paleontological research (3+ 3 hours, fall and spring)
 - Other approved field-oriented experience in biology or paleobiology.

- One of the following:**
 - GEOL 520 [152] (note that this course may double count as a Geology course **above 400** [97])
 - BIOS [101] Fundamentals of Biostatistics (3 hours, fall) *NOTE: not included in 2006 curriculum*
 - any COMP \geq 110 **except** COMP 380 [96] Computers and Society.
 - any MATH above 232 [32]
 - any STOR 155 [STAT 31] or above

One of the following:

- PHYS 104 [24], 104L [24L] General Physics with lab (4 + 1 hours, fall and spring)
- PHYS 116 [26] Mechanics (4 hours, fall and spring)

Three Geology courses above 400 [97]. Recommended but not required: GEOL 390 [199] Special Problems in Paleontology if taken for 2-3 credit hours, GEOL 431 [133] Micropaleontology (4 hours, on demand), GEOL 501 [118] Geological Research Techniques (2 hours, fall), GEOL 555 [197] Paleobotany (4 hours, spring in alternate years), GEOL 691 + 692 [98 + 99] Honors Courses in Paleontology.

- 1.
- 2.
- 3.

At least three geology or allied science courses from the following list:

- any GEOL **except** GEOL 101 [11], 103 [12], 105 [13], 159 [16], 109 [18], 111 [41] (404 [53] recommended but not required).
- ANTH 143 [43] Human Evolution and Adaptation (3 hours, fall and spring)
- ANTH 315 [115] Human Genetics and Evolution (3 hours, fall or spring)
- ANTH 317 [117] Evolutionary Perspectives on Human Adaptation and Behavior (3 hours, fall or spring)
- ANTH 412 [112] Paleoanthropology (3 hours, fall and spring)
- ANTH 414 [114] Human Osteology (4 hours, fall or spring)
- any ASTR **except** First Year Seminar
- any BIOC **except** First Year Seminar, BIOC 107 [007], 108 [008] and [40]. *Not in 2006 curriculum.*
- any BIOL **above** BIOL 113 [10].
- BIOS [101] The Fundamentals of Biostatistics (3 hours, fall) *NOT included in 2006 curriculum*
- any CHEM **above** CHEM 102 [21].
- any COMP \geq 110 **except** COMP 380 [96].
- any ENVR **except** First Year Seminar and ENVR 600 [101] Environmental Health
- any MASC **above** MASC 101 [12]
- any MATH **above** MATH 232 [32]
- any PHYS **except** First Year Seminar, PHYS 100 [10], 101 [20], 132 [37], 313 [113] and [84] *NOT included in 2006 curriculum.*
- any STOR 155 [STAT 31] or **above**.
- Vertebrate paleontology course from the Geology Department at North Carolina State University
- Systematics course from the Biology Department at Duke University