

# Honors Paleontology Requirements (90)

## Foundation Courses

- BIOL 107 - Introduction to Cell Biology
- BIOL 108 - Introduction to Biological Diversity
- CHEM 101 - Introductory University Chemistry I
- EAS 100 - Planet Earth
- EAS 105 - The Dynamic Earth Through Time
- STAT 151 - Introduction to Applied Statistics I

### 3 units from:

- MATH 117 - Honors Calculus I
  - MATH 125 - Linear Algebra I
  - MATH 134 - Calculus for the Life Sciences I
  - MATH 144 - Calculus for the Mathematical and Physical Sciences I
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## Senior Courses

- BIOL 207 - Molecular Genetics and Heredity
- BIOL 208 - Principles of Ecology
- BIOL 221 - Mechanisms of Evolution
- BIOL 335 - Principles of Systematics
- EAS 222 - Stratigraphy and Sedimentation
- EAS 230 - Introduction to Invertebrate Paleontology
- EAS 233 - Geologic Structures
- EAS 234 - Geology Field School

### 3 units from:

- ZOOL 242 - Animal Physiology II: Intercellular Communication
  - ZOOL 250 - Survey of the Invertebrates
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### 3 units from:

- EAS 465 - Sedimentology
  - ZOOL 325 - Comparative Anatomy of the Vertebrates
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### 6 units from:

- BIOL 499 - Research Project (6) (takes up both lines) 

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- EAS 426 - Undergraduate Thesis (6) (takes up both lines) 

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### 9 units from the Paleontology Course List at the 100, 200, 300 and/or 400 level (next page):

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### 12 units from the Paleontology Course List at the 300 and/or 400 level (next page):

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### 6 units from the Paleontology Course List at the 400 level (next page):

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### 6 units from:

EAS and/or PALEO at the 400-level

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- COMM
- COMM
- IND
- BO\_\_
- BO\_\_
- BSBS
- BSFS
- BSSS
- LAB

# Course Lists for Bachelor of Science Paleontology Subject Area

## Vertebrate Paleontology:

- MA SC 412 - Biology of Fishes
- PALEO 400 - Paleontology Field School
- PALEO 418 - Paleobiology of the Vertebrates I
- PALEO 419 - Paleobiology of the Vertebrates II
- ZOOL 224 - Vertebrate Diversity
- ZOOL 325 - Comparative Anatomy of the Vertebrates
- ZOOL 405 - Biology of Fishes
- ZOOL 406 - Biology of Amphibians and Reptiles
- ZOOL 407 - Biology of Birds
- ZOOL 408 - Biology of Mammals

## Invertebrate Paleontology:

- BOT 205 - Fundamentals of Plant Biology
- BOT 308 - Plant Anatomy
- BOT 321 - Plant Diversity and Evolution
- EAS 110 - Earth Science Field School
- EAS 336 - Sedimentary Systems
- EAS 364 - Basin Resources and Subsurface Methods
- EAS 460 - Geobiology
- EAS 462 - Stratigraphy and Sedimentary Basins
- EAS 465 - Sedimentology
- ENT 220 - Insect Biology
- ENT 327 - Terrestrial Arthropod Diversity
- MA SC 410 - Marine Invertebrate Zoology
- ZOOL 250 - Survey of the Invertebrates

## General Paleontology:

- BIOL 315 - Biology: An Historical Perspective
- BIOL 361 - Marine Science
- BIOL 364 - Freshwater Ecology
- BIOL 398 - Research Project
- BIOL 399 - Research Project
- BIOL 421 - Molecular Evolution and Systematics
- BIOL 498 - Research Project
- EAS 208 - Introduction to Global Change
- EAS 225 - Earth Surface Processes and Landforms
- EAS 270 - The Atmosphere
- EAS 320 - Geochemistry I
- EAS 373 - The Climate System
- EAS 421 - Structural Geology and Tectonics
- EAS 457 - Global Change
- PALEO 412 - Selected Topics in Paleontology
- PALEO 414 - Paleontology

### **Notes:**

1. Some courses appear on more than one list. Students may not use the same course to satisfy more than one list requirement.
2. To fulfill the knowledge requirements for registration as a professional geoscientist (P. Geo.) through APEGA (Association of Professional Engineers and Geoscientists of Alberta), meet with an EAS program advisor to discuss appropriate course selections. Current syllabus and registration information is available from the Department of Earth & Atmospheric Sciences or APEGA. Full information is available at [www.apega.ca](http://www.apega.ca).
3. Some courses are offered in alternate years only, so plan your schedule appropriately.