

Paleontology M.S.



Contact Information

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Faculty

Professors Price (Chair), Martin; Assistant
Professor Pagnac; Haslem Post-doctoral Fellow
Wood; Professor Emeritus Fox.

Supporting Faculty

Assistant Professors Terry, Sawyer.

Paleontology

The master's program in paleontology emphasizes the opportunity for combining field work in western South Dakota with study of the extensive collections of the Museum of Geology. Fossiliferous deposits range from the Jurassic through the Holocene. A student may enter this program with an undergraduate degree in geology, anthropology, one of the biological sciences, or other science disciplines, but for the latter majors, deficiencies must be completed as listed below.

Candidates for the M. S. degree must fulfill all degree requirements of the graduate office. The

thesis option is the only option for the M.S. in paleontology.

1. All incoming students are expected to present one semester of college-level Physics and two semesters each of college-level Calculus and Chemistry as part of their undergraduate record. Deficiencies in these areas must be remedied by taking the necessary course work prior to or in the first year of enrollment in the graduate program.
2. All incoming students are expected to have completed courses in, or to develop proficiency in, the following areas. Additional subjects may be required by the student's graduate committee depending on the student's area of interest. The student and the graduate committee will arrange how these requirements can best be met.

- Statistics
- Mineralogy
- Historical Geology
- Invertebrate Paleontology
- Petrology
- Structural Geology
- Stratigraphy and Sedimentation
- Field Geology

No graduate credit will be granted for making up undergraduate-level deficiencies.

The GRE exam is required of all applicants except School of Mines graduates. The TOEFL exam is required for students whose native language is not English.

Thirty-two (32) semester credits are required for the M.S. degree. The following courses must be taken as part of the graduate program of study:

GEOL 631 Rocky Mountain Stratigraphy I

OR

632 Rocky Mountain Stratigraphy II

GEOL 633 Sedimentation

PALE 671 Advanced Field

Paleontology

PALE 673 Comparative Osteology

PALE 676 Vertebrate Paleontology

PALE 678 Vertebrate Biostratigraphy

PALE 798 Master's Thesis

(a minimum of six (6) credits)

PALE 770 Seminar in Vertebrate Paleontology

The following courses are recommended:

- GEOL 572 Museum Conservation and Curation
- GEOL 573 Museum Preparation Techniques and Exhibit Design
- GEOL 517 Geospatial Databases
- GEOL 643 Intro to Microbeam Instruments
- PALE 672 Micropaleontology
- PALE 684 Pale environments
- GEOL 604 Advanced Field Geology or other appropriate courses in geology.

The candidate will pass a reading examination in one of the following languages: French, German, Spanish, or Russian. The examination will consist of translating a paleontology abstract or similar-length passage of technical writing into acceptable English. The student will have one hour to complete the translation and is permitted the use of a bound (not electronic) standard foreign language dictionary.

All thesis samples, specimens, and their documentation collected while at School of Mines must be curated into the systematic collections of the Museum of Geology for future students, scientists, and technologies.

