Current facts about the Earth Science and Geology degree programs at UNI.

**History:** Geology has been part of the UNI from the initial form of the university as the Iowa State Normal School. In 1895-96, students at ISNS were required to complete one course each in astronomy, geography and geology as part of the Regular State Diploma programs in English, Latin and advanced Latin. Students studying science were also required to complete a course in mineralogy. Beginning in 1920, earth science was offered as a major, and included courses in astronomy, climatology, conservation of natural resources, geology and meteorology. After UNI assumed its present university structure, the geology BA degree was added to the curriculum in 1970. The geology BS was added in 1986.

Since 1970 a total of 337 earth science degrees have been awarded, and 155 geology degrees have been awarded. Over the past decade the size of the student population in the department has grown significantly, more than doubling in the last 20 years. At this time there is an all-time high in the number of geology majors, with 29 current majors, comprising more than 1/3 of the entire department. This marks a nearly 100% increase over the past 5 years.
Teaching: Faculty currently provide instruction in four different courses in the Physical Science area of the Liberal Arts Core, the general education component. These include Astronomy, Elements of Weather, Introduction to Geology, and Inquiry into Earth Science. The enrollment in these courses comprise approximately ½ of the total enrollment in this category of the LAC. In addition, the course Fossils and Evolution remains a popular option for non-majors as well.

In addition to providing courses for majors, and non-majors with the LAC courses, the department also supports the Science Education majors (both undergraduates and graduate students) through course offerings and advising, and biology majors often opt to take the Introduction to Geology – Earth History sequence as a cognate.

Recently the Iowa Core Curriculum was revised to require Earth and Space Science Content in K-12 education, and therefore Earth Science content for pre-service teaching majors from elementary education to high school. This requirement shows the interest and importance in understanding processes on the earth and beyond at all levels of state education. Earth Science faculty have provided such content to both future and current teachers throughout the department’s history.

Current Faculty: 9 - same numbers since 1995
Current Number of Majors: 81
29 All Geology majors
52 All Earth Science majors

For comparison, the Fall 2011 enrollment data for the University of Iowa lists 39 geoscience majors (geology and earth science) at the undergraduate level, while ISU has 52 geology and 11 earth science majors, for a total of 63 geoscience undergraduates. UNI has the largest geoscience program in the state.

Number of graduates/year: 17/year (10 year average)
3.4 Geology majors per year
13.6 Earth Science per year

Current positions held by some Geology Majors:
- US Geological Survey – Hydrologist
- Chesapeake Environmental Mgt Inc, Hydrologist
- South Dakota Geological Survey, State Geologist
- Associate Professor of Geochemistry & IDLS coordinator, James Madison University
- National Geospatial Intelligence Agency, cartographer
- QST Environmental, Project Geologist
- Associate Professor of Geology, Western Illinois University
- Hydrogeologist, CH2M HILL
- URS Operating Services, Geologist and Environmental Scientist
- Braun Intertec, Senior Geologist
ExxonMobil Exploration, Senior Geologist
Veri-Tas DGC Inc, Geophysicist
The Water Shed Institute, Geologist
Marathon Oil Co, Geologist
Megellan Pipeline, Geologist
Black and Beach, Engineer
United States Senate's Energy & Natural Resources Committee, Professional Staff
Assistant Professor, Civil and Environmental Engineering, University of Wisconsin
Department of Transportation, State of Minnesota, Hydrogeologist
Diamond Grader, Gemological Institute of America
Environmental Scientist, Maxim Technologies
Shell Exploration and Production, Geologist
Environmental Business Manager, Iowa Waste Reduction Center, UNI
Environmental Staff, Geo Design Inc.
Encana Oil & Gas, Geologist
Devon Corporation, Geophysicist

Over the past 7 years Earth Science Faculty have:

- Supervised 60 students in undergraduate research projects
- Supervised 62 students in internship programs across Iowa and in other states
- Published 225 refereed papers, conference proceedings, books, book chapters or other professional articles.
- Generated $2.75 Million in external grants

Cost: The Earth Science Department cost per student credit hour ranks as the 11th lowest at UNI (for 33 departments). Amongst the science departments it has the second lowest cost/student credit hours after Mathematics.

Outreach: Earth Science faculty have consistently provided extensive educational and outreach opportunities to not only the students of UNI, but the local community through various ventures. These include:

- 10 years of “Geology of Iowa for Teachers”, an extensive week-long course for in-service teachers to enhance their knowledge and develop curriculum.
- 10 years of STORM Courses for teachers from around the country to enhance their curriculum through courses on weather analysis and forecasting and air quality
- Weekly planetarium and observatory shows throughout the school year, open to the public and free of charge, every Thursday night during the semester. In fall 2011, over 350 people visited the observatory over 12 weeks.
• Co-sponsor of the “Quarry Open Houses” with BMC Ltd, as part of Earth Week Activities every fall, where local school children and adults can learn about geology and take part in creative educational activities.

• Earth Science Update conference for current in-service teachers, held annually, to provide teachers with the latest news about geology, meteorology, astronomy and earth science trends.

Recognition: Earth Science Faculty have also been recipients of awards including:

• Donald N. McKay Faculty Research Award
  ○ John Groves

• Regents Award for Faculty Excellence
  ○ Siobahn Morgan

• College of Natural Sciences Dean’s Award for Excellence in Research
  ○ Alan Czarnetzki
  ○ John Groves
  ○ Mohammad Iqbal

• College of Natural Sciences Dean’s Award for Excellence in the Liberal Arts Core
  ○ Tom Hockey

• College of Natural Sciences Dean’s Award for Excellence in Departmental Programs
  ○ James Walters
  ○ Siobahn Morgan
  ○ John Groves (twice)

• Dean’s Award for Superior Achievement as a Faculty Member
  ○ James Walters
  ○ Ken De Nault

• University Book and Supply Teaching Award
  ○ Alan Czarnetzki
  ○ Siobahn Morgan
  ○ John Groves
  ○ Chad Heinzel

• Veridian Credit Union Community Engagement Award
  ○ Alan Czarnetzki

• Governor’s Rebuild Iowa Award for Service
  ○ Ken De Nault

• Cedar Falls Community Service Award
  ○ Ken De Nault (twice)

• UNI Commitment to C.A.R.E. Sustainability Award
  ○ James Walters