

GEOSCIENCE EDUCATION

MASTER OF SCIENCE IN EDUCATION: GEOSCIENCE EDUCATION*

Do your students get excited about rocks, meteorites, dinosaurs, stars, volcanoes, oceans, tornados, or black holes? Do you want to energize your science teaching? Do you want to teach a geoscience course in your school? Would you like to be eligible to teach dual-credit courses for your high school? Then the UT Martin Online Master of Science in Education: Geoscience Education program is for you! The foundation of the Geoscience (Education) masters program consists of 18 hours of geoscience content courses with integrated field experiences staffed by science faculty experienced in teacher education. The sound science foundation is coupled with supporting education pedagogy courses tied to science standards education taught by experienced education faculty.

ONLINE GEOSCIENCE COURSES

700 Earth Systems Science – Problem-based exploration of Earth's interacting global processes and environments including the lithosphere, atmosphere, biosphere, hydrosphere, and astrosphere.

710 Physical Geology – Earth's internal structure, plate tectonics, the rock cycle, weathering and earth materials; natural resources, geochemical cycles; and the basis for geologic time and the history and nature of science.

720 Oceanology for Teachers – Modern and ancient oceans including ocean floor topography; marine sediments, waves, tides, and currents; marine ecosystems, and evolution of ocean systems through geologic time,

730 Understanding Evolution – Cosmic, geologic, and organic evolution with emphasis on the development of evolutionary thought and current methods scientists use to investigate evolution.

740 Field Experience in Geoscience – Field experiences may include summer workshops or institutes, extended weekend field courses, travel courses, field camps, or extended field trips. See reverse for more information.

- Mapping – Earth Landforms and Planets
- Fossils & Telescopes
- Oceans & Stars
- Cosmology, Earth History and Life Through Time
- Climatology & Global Change
- GeoTrek Series
 - Belize, Ca.
 - American West
 - Geology of Tennessee

750 Global Climate Change – Geographic patterns and physical processes of global climate change throughout Earth's history and assessments of future climate change scenarios.

760 Astrophysics for Educators – The formation, evolution, and structure of the universe, galaxies, and stars.

ONLINE EDUCATION COURSES

EDEV 710 Educational Statistics – An elementary course in methods applied to educational problems; resolution of assigned or chosen problems in educational statistics.

EDFN 710 Research in Education – Introduction to graduate study. Consideration of the various techniques appropriate to the production and consumption of educational research.

EDFN 720 Educational Studies: Multicultural Issues in Education and Counseling – Emphasis is on multicultural education and cultural foundations in education and counseling; developing knowledge, effectiveness in teaching and counseling services in Pre K-12 schools.

EDST 710 Models of Instruction, Curriculum Development, and Advanced Teaching Strategies – Advanced principles of curriculum and instruction as applied to education; study of a variety of curriculum designs used regularly or experimentally; development and organization of the curriculum; analysis of current practices, problems and trends in education; an exploration of significant alternative approaches to teaching in education.

EDST 750 Advanced Computer Applications and Technologies in Education – Gives background in microcomputer technology necessary to enable the teacher to be computer functional in the classroom use of software, word processing, use of data bases and spreadsheets, low and high resolution graphics, as well as administrative software applications.

TCED 791 Master Research Project, K-12 – The culminating professional research project for the Master of Science in Education with a major in Teaching Programs. Seminar topics to include but not limited to educational reform, curriculum design, student achievement, parent involvement, cultural diversity, educational technology, assessments, and educators as collaborative leaders and mentors in a K-12 setting.

**The actual degree awarded is a Master of Science in Education with a major in Teaching /Interdisciplinary: Geosciences Education option. This degree does not lead to any type of teaching license.*

APPLY ONLINE: www.utm.edu/utonline/msed_geosci.php



FIELD EXPERIENCE

Field experiences consist of a minimum of three (3) graduate hours of face-to-face, hands-on, in-the-field application of course concepts. Participants work with faculty to select from a menu of field programs offered by UT Online or other approved programs. Average duration of a single field experience is one week emphasizing professor/teacher environmental interaction. Field experiences may be a combination of state, national, and international destinations.

GEOSCIENCE FACULTY

- Dr. Michael A. Gibson**, Professor of Geology (UT Martin) – Paleontology, Earth History, Oceanology
- Dr. Lionel Crews**, Assistant Professor of Physics (UT Martin) – Astronomy, Planetary Science, Cosmology
- Dr. Ann Holmes**, Assistant Professor of Geology (UT Chattanooga) – Geology, Earth History
- Dr. Mark Simpson**, Associate Professor of Geography (UT Martin) – Earth Systems, Meteorology, Climatology

EDUCATION FACULTY

- Dr. Glenda Rakes**, Professor: Models of Instruction, Curriculum Development and Advanced Teaching Strategies; Advanced Computer Applications in Education; Research in Education
- Dr. Jim Petty**, Associate Professor: Educational Statistics; Master's Research Project
- Dr. Becky Cox**, Assistant Professor: Models of Instruction, Curriculum Development and Advanced Teaching Strategies
- Dr. Michael Spaulding**, Assistant Professor: Advanced Computer Applications in Education
- Dr. Linda Blanding**, Assistant Professor: Multicultural Issues in Education and Counseling



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UT ONLINE

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