

TEACHING ASSISTANT POSITION DESCRIPTIONS

Department of Geological Sciences

Application procedure: Applicants for teaching assistantships through the Department of Geological Sciences should send a letter of application, including a statement of which course(s) is/are being applied for; official transcripts; official GRE scores; official TOEFL and SPEAK scores; and three letters of recommendation to:

Dr. Michael A. Velbel, Chair
Department of Geological Sciences
Michigan State University
206 Natural Science Building
East Lansing, MI 48824-1115

Application deadlines: January 15 (for fall); September 15 (for spring)

Please direct questions to: Loretta Knutson at knutsonL@msu.edu.

ISP 203L—Geology of the Human Environment

QUALIFICATIONS REQUIRED:

Education: B.S. or B.A. in Geological Sciences, Environmental Geosciences, or Earth Science.

Experience: None.

Background courses: Physical Geology, and have satisfactorily completed or are concurrently enrolled in at least one of the following classes: Physical and Biological History of the Earth (GLG 304), Sedimentology and Stratigraphy (GLG 431), or Hydrogeology (GLG 411).

Association with employing unit: Must be a graduate student in a graduate degree program administered by the Department of Geological Sciences.

GLG 201—The Dynamic Earth

QUALIFICATIONS REQUIRED:

Education: 1) B.S. or B.A. degree in Geological Sciences or Environmental Geosciences; or 2) B.S. degree in other physical or biological science.

Experience: 1) For applicants with B.S. degree in Geological Sciences or Environmental Geosciences: No experience required. 2) For applicants lacking a B.S. degree in Geological Sciences or Environmental Geosciences: One year Graduate Teaching Assistant experience in courses staffed by the Department of Geological Sciences.

Background courses [for category 1) in Experience above]: Physical Geology, Physical and Biological History of the Earth, Mineralogy and Geochemistry, Structural Geology, and Petrology and/or Sedimentology and Stratigraphy.

Association with employing unit: Must be a graduate student in a graduate degree program administered by the Department of Geological Sciences.

GLG 304—Physical and Biological History of the Earth

QUALIFICATIONS REQUIRED:

Education: 1) B.S. or B.A. degree in Geological Sciences or Environmental Geosciences; or
2) B.S. degree in other physical or biological science.

Experience: 1) For applicants with B.S. degree in Geological Sciences or Environmental Geosciences: No experience required. 2) For applicants lacking a B.S. degree in Geological Sciences or Environmental Geosciences: One year Graduate Teaching Assistant experience in courses staffed by the Department of Geological Sciences.

Background courses: Physical and Biological History of the Earth, Sedimentology and Stratigraphy, and at least one course in Paleontology (Vertebrate, Invertebrate, or Paleobotany).

Association with employing unit: Must be a graduate student in a graduate degree program administered by the Department of Geological Sciences.

GLG 321—Mineralogy and Geochemistry

QUALIFICATIONS REQUIRED:

Education: B.S. or B.A. degree in Geological Sciences or Environmental Geosciences.

Experience: One semester Graduate Teaching Assistant experience in courses staffed by the Department of Geological Sciences required. Previous experience teaching Mineralogy and Geochemistry preferred.

Background courses: Must have completed one undergraduate Mineralogy and Geochemistry course, one undergraduate Petrology course, and all prerequisite courses required for MSU's Mineralogy and Geochemistry course. Preference will be given to graduate students whose research focuses on mineralogy/petrology/high-temperature geochemistry.

Association with employing unit: Must be a graduate student in a graduate degree program administered by the Department of Geological Sciences.

GLG 351—Structural Geology

QUALIFICATIONS REQUIRED:

Education: B.S. or B.A. degree in Geological Sciences or Environmental Geosciences.

Experience: One semester Graduate Teaching Assistant experience in courses staffed by the Department of Geological Sciences required. Previous experience teaching structural geology preferred.

Background courses: Must have completed one undergraduate Structural Geology course and all prerequisite courses required for MSU's Structural Geology course.

Association with employing unit: Must be a graduate student in a graduate degree program administered by the Department of Geological Sciences.

GLG 361—Petrology

QUALIFICATIONS REQUIRED:

Education: B.S. or B.A. degree in Geological Sciences or Environmental Geosciences.

Experience: One semester Graduate Teaching Assistant experience in courses staffed by the Department of Geological Sciences required. Previous experience teaching petrology preferred.

Background courses: Must have completed one undergraduate Petrology course and all prerequisite courses required for MSU's Petrology course, and Sedimentology and Stratigraphy. Preference will be given to graduate students whose research focuses on mineralogy/petrology/high-temperature geochemistry.

Association with employing unit: Must be a graduate student in a graduate degree program administered by the Department of Geological Sciences.

GLG 401—Plate Tectonics

QUALIFICATIONS REQUIRED:

Education: B.S. or B.A. degree in Geological Sciences, Environmental Geosciences or Earth Science.

Experience: None.

Background courses: Physical Geology, Physical and Biological History of the Earth, and have had one of the following: 1) MSU's GLG 401, or 2) MSU's GLG 351 and GLG 470. Interest in K-12 education is preferred.

Association with employing unit: Must be a graduate student in a graduate degree program administered by the Department of Geological Sciences.

GLG 411—Hydrogeology

QUALIFICATIONS REQUIRED:

Education: B.S. or B.A. degree in Geological Sciences or Environmental Geosciences.

Experience: None.

Background courses: At least one course in Hydrogeology, and at least one course in Sedimentology and/or Stratigraphy.

Association with employing unit: Must be a graduate student in a graduate degree program administered by the Department of Geological Sciences.

GLG 412—Glacial and Quaternary Geology

QUALIFICATIONS REQUIRED:

Education: B.S. or B.A. degree in Geological Sciences or Environmental Geosciences.

Experience: None.

Background courses: At least one course in Glacial Geology, and at least one course in Sedimentology and/or Stratigraphy.

Association with employing unit: Must be a graduate student in a graduate degree program administered by the Department of Geological Sciences.

GLG 421—Environmental Geochemistry

QUALIFICATIONS REQUIRED:

Education: 1) B.S. or B.A. degree in Geological Sciences or Environmental Geosciences; or
2) B.S. degree in chemical science.

Experience: None.

Background courses: 1) Geological Sciences courses required for B.S. or B.A. degree. 2)
GLG 421 or one semester of chemistry at 200- or 300-level, or course(s) in
environmental geochemistry, low-temperature geochemistry, biogeochemistry, or
aqueous geochemistry, or an equivalent. 3) Physical Geology.

Association with employing unit: Must be a graduate student in a graduate degree
program administered by the Department of Geological Sciences.

GLG 431—Sedimentology and Stratigraphy

QUALIFICATIONS REQUIRED:

Education: B.S. or B.A. degree in Geological Sciences or Environmental Geosciences.

Experience: None.

Background courses: Introductory Physical Geology, Physical and Biological History of the
Earth, Mineralogy, Structural Geology, and Petrology and/or Sedimentology and
Stratigraphy. Preference will be given to graduate students in the Department of
Geological Sciences whose research area focuses on sedimentology and stratigraphy.
Secondary preference will be given to graduate students in the Department of
Geological Sciences or graduate students with specific training in geologic principles.

Association with employing unit: Must be a graduate student in a graduate degree
program administered by the Department of Geological Sciences.

GLG 434—Evolutionary Paleobiology

QUALIFICATIONS REQUIRED:

Education: B.S. or B.A. in Geological Sciences, Environmental Geosciences, or in a field of
biological science.

Experience: None.

Background courses: Evolutionary Paleobiology or Invertebrate Paleontology,
Sedimentology and Stratigraphy, and two or more courses in biological science.

Association with employing unit: Must be a graduate student in a graduate degree
program administered by the Department of Geological Sciences.