Date Submitted: 02/14/18 4:29 pm

Viewing: GEOLMS : Geology, Master of Science

Last approved: 05/25/17 12:48 pm

Last edit: 10/16/18 1:28 pm

Changes proposed by: rcc003

Catalog Pages Using this Program

Geosciences (GEOS)

Submitter: User ID: calison Phone: 479-575-6731

Program Status Active

Academic Level Graduate

Type of proposal Major/Field of Study

Select a reason for this modification

Making Minor Changes to an Existing Degree (e.g. changing 15 or fewer hours, changing admission/graduation requirements, adding Focused Study)

Are you adding a concentration?

No

Are you adding a track?

No

Are you adding a focused study?

No

Effective Catalog Year Fall 2019

College/School Code

Fulbright College of Arts and Sciences (ARSC)

Department Code

Department of Geosciences(GEOS)

Program Code GEOLMS

In Workflow

1. **ARSC Dean Initial**
2. **GRAD Dean Initial**
3. **Director of Program Assessment and Review**
4. **Registrar Initial**
5. **GEOS Chair**
6. **ARSC Curriculum Committee**
7. **ARSC Dean**
8. **Global Campus**
9. **Provost Review**
10. **University Course and Program Committee**
11. Graduate Committee
12. Faculty Senate
13. Provost Final
14. Provost's Office--Notification of Approval
15. Registrar Final
16. Catalog Editor Final

Approval Path

1. 02/14/18 4:55 pm Jeannine Durdik (jdurdik): Approved for ARSC Dean Initial
2. 02/14/18 5:06 pm Pat Koski (pkoski): Approved for GRAD Dean Initial

Degree	Master of Science
CIP Code	

3. 02/19/18 8:31 am Alice Griffin (agriffin): Approved for Director of Program Assessment and Review
4. 06/26/18 3:02 pm Karen Turner (kjvestal): Approved for Registrar Initial
5. 07/06/18 4:23 pm Chirstopher Liner (liner): Approved for GEOS Chair
6. 10/11/18 2:13 pm Pearl Dowe (pkford): Approved for ARSC Curriculum Committee
7. 10/11/18 2:20 pm Jeannine Durdik (jdurdik): Approved for ARSC Dean
8. 10/12/18 12:08 pm Miran Kang (kang): Approved for Global Campus
9. 10/16/18 10:05 am Terry Martin (tmartin): Approved for Provost Review

History

1. Mar 3, 2015 by Charlie Alison (calison)
2. Aug 18, 2015 by Lisa Kulczak (lkulcza)

3. May 17, 2016 by Charlie Alison (calison)
4. Mar 14, 2017 by Gina Daugherty (gdaugher)
5. Mar 21, 2017 by Lisa Kulczak (lkulcza)
6. Mar 21, 2017 by Lisa Kulczak (lkulcza)
7. Apr 5, 2017 by Charlie Alison (calison)
8. May 25, 2017 by Lisa Kulczak (lkulcza)

40.0601 - Geology/Earth Science, General.

Program Title

Geology, Master of Science

Program Delivery Method

On Campus

Is this program interdisciplinary?

No

Does this proposal impact any courses from another College/School?

No

What are the total hours needed to complete the program?

30

Program Requirements and Description

Requirements

Admission to Degree Program: Students admitted to graduate study should have completed an undergraduate geology program similar to that required for the B.S. degree at the University of Arkansas.

Applicants lacking an appropriate background may satisfy deficiencies while enrolled in Graduate School. Prospective students should submit application forms, three letters of recommendation, and a statement of their graduate and professional goals before **January** ~~February~~ 15 for the fall semester and October 15 for the spring semester to assure their consideration. These dates are also deadlines for receipt of application for financial assistance.

Requirements for the Master of Science Degree: The program in Geology requires 30 graduate course credit hours, six of which will be derived from a thesis reporting the results of an original ~~laboratory or field~~ research problem. All course work, a thesis topic, and the final thesis must be approved by the student's thesis committee. This committee is selected by the student and the student's thesis director and will consist of a minimum of three members. At least two of the committee members will be chosen from geology faculty whose areas of expertise coincide with the research interests of the student.

Each student will complete **30 credit** ~~a core curriculum consisting of a minimum of 12~~ hours **that include 6 thesis credit hours and an additional 24 credit hours consisting of**

~~selected from the following courses:~~

GEOS 5612 Research Methods in Geosciences

GEOS 5011 Colloquium

~~Each student must complete a minimum of 18 credit hours in geology courses, including one credit hour of GEOS 5011 Colloquium, in addition to the six credit hours for the thesis.~~ **plus 12 credit hours of 5000-level** ~~Students who have completed some or all of these core~~ courses **(not** ~~as part of their undergraduate program must substitute additional elective courses, as approved by their thesis committee,~~ to **include unnamed special topics and independent study) taught by** ~~fulfill~~ the **Geology Faculty with an additional 9 credit hours determined in consultation with the thesis Advisor and advisory committee.** ~~minimum required 24 credit hours of course work.~~ **A listing of geology Faculty can be found in the Geosciences Graduate Student Handbook.**

~~Select four of the following:~~ ~~12~~

~~GEOS 5253~~	~~Geomorphology (formerly GEOS 4053)~~
~~GEOS 5273~~	~~Principles of Geochemistry (formerly GEOS 4063)~~
~~or GEOS 5853~~	~~Environmental Isotope Geochemistry~~
~~GEOS 5433~~	~~Geophysics (formerly GEOS 4433)~~
~~GEOS 5123~~	~~Stratigraphic Principles and Practice~~
~~GEOS 5223~~	~~Sedimentary Petrology~~

Courses transferred or previously taken as an undergraduate may not be used for graduate credit toward the 24 credit hour requirement. Students should be aware that courses taken to fulfill deficiencies as graduate students will incur graduate tuition.

To complete the requirements for the degree, the candidate must complete all course work with a grade-point average of 3.00, submit an acceptable thesis, and pass a comprehensive examination based primarily on a defense of the student's thesis.

Students should also be aware of Graduate School requirements with regard to master's degrees.

Are Similar Programs available in the area?

No

Estimated Student Demand for Program: NA

Scheduled Program Review Date: **2020-2021** ~~NA~~

Program Goals and Objectives

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Students admitted to graduate study should have completed an undergraduate geology program similar to that required for the B.S. degree at the University of Arkansas. The program in Geology requires 30 graduate course credit hours, six of which will be derived from a thesis reporting the results of an original laboratory or field research problem. All course work, a thesis topic, and the final thesis must be approved by the student's thesis committee. This committee is selected by the student and the student's thesis director and will consist of a minimum of three members. At least two of the committee members will be chosen from geology faculty whose areas of expertise coincide with the research interests of the student.

Each student will complete a core curriculum consisting of a minimum of 12 hours selected from the following courses:

Geomorphology
Geophysics
Geochemistry
Sedimentary Petrology
Advanced Stratigraphy and Sedimentation ~~NA~~

Learning Outcomes

Learning Outcomes

Learning Outcomes
• Have an appreciation for the environmental aspects of earth systems and potential impacts and hazards associated with human occupation. • Be able to conceptualize the stratigraphic character of rocks in outcrop and from subsurface data, and sedimentological processes • Recognize and understand the structural features of the earth in outcrop and in the subsurface and relate these to geophysical data representing the subsurface. • Understand the geomorphic characteristics of the earth's surface and the mechanisms forming the earth's surface features. • Understand the concepts of geologic time, the succession of life on earth through geologic time, and the tectonic forces acting on earth through geologic time. • Have sufficient mathematical, chemistry and physics knowledge to be able to apply these fields to geologic settings and problems, as well as resource identification, development and management. • Have the ability to communicate results of their efforts in written reports including the MS thesis, and orally to diverse audiences. ~~NA~~

Description and justification of the request

Description of specific change	Justification for this change
We are dropping a tight list of MS Geology core required classes and moving toward a more unstructured requirement approach.	This modernizes our MS Geology requirements. Our research shows this is in line with over half of our peer group of geology departments. Over the last couple of decades the scope of geology has broadened and the core class approach is seen as too restrictive and is now less useful. The new plan aligns graduate students better with tenure-line faculty and fairly represents the broadening of the geology discipline. Also, is better alignment with MS Geography requirements in our department.

Upload attachments

Reviewer Comments

Alice Griffin (agriffin) (02/19/18 8:30 am): Inserted scheduled program review date.

Alice Griffin (agriffin) (10/16/18 1:24 pm): Inserted program goals and learning outcomes from program's annual assessment report. Department is encouraged to review and update as appropriate.

Alice Griffin (agriffin) (10/16/18 1:28 pm): Replaced red box of course not found with approved course GEOS 5612. Course completed approval process since program change was originally submitted.

Key: 311