

ESTABLISHMENT OF MASTER OF ARTS PROGRAM IN GEOLOGY (NON-THESIS OPTION)

Recommendation

It is recommended that the Board of Governors establish a new degree program, the Master of Arts in Geology, effective Fall 2019.

Background

The Master of Arts in geology is designed to provide the students with special training in the environmental aspects of this discipline in keeping with the urban setting of Wayne State University. Students receiving the degree of Master of Arts in geology will be especially prepared to work in a capacity that deals with or provides solutions to environmental problems in which an intimate relationship between the environment and earth science is an important factor.

Currently, the M.S. degree in Geology requires students to complete 24 credits hours of course work in Geology and related science and engineering courses and 8 credit hours of thesis work. The students work under the mentorship of a faculty member in the Geology Department for their 8 credit hours of thesis. The research component for the thesis work is usually supported from external grants, thus limiting the growth of the graduate program in the Geology department. Supporting Masters students with Graduate Research Assistantships is not sustainable if the program is to grow. In addition, the Geology department currently has only one Graduate Teaching Assistantship (GTA) since Fall 2018. Lack of a non-thesis option has prevented some of the aspiring students from entering the geology graduate program (e.g. non-traditional students having a regular day-time job who are unable go through thesis option). Graduate classes offered in the evening are also very limited. These factors have contributed to the very small size of the graduate program in Geology and have been an obstacle, thus preventing the growth of the program.

Program Description

The Department of Geology proposes to add a Master of Arts (MA) Program in Geology, with two additional tracks to the existing Masters offerings; the M.S. - Plan A (thesis option). The changes include addition of M.A. - Plan B (29 credits of course work and 3 credits of a research paper) and M.A. – Plan C (32 credits of course work). Introduction of these two additional tracks in our master's program will likely result in significant increase in enrollment in our graduate program. This requirement of maximum 8 credits from outside the department is applicable to Plan-A, B and C.

Admission Requirements

Admission to this program is contingent upon admission to the Graduate School. Candidates are required to have an undergraduate major in geology, or a strong background in geology supported by courses in related sciences, and a grade point average of at least 3.0 in the major. Special cases with lower GPAs may also be considered on a case-by-case by the department. Prerequisite study should include many of the following courses: mineralogy, petrology, sedimentation and stratigraphy, geomorphology, environmental geochemistry, and structural geology, plus a course in any two of the following fields: paleontology, geological site assessment, or geophysics. Two or more credits in field geology or the equivalent is also required. Two semesters of calculus, a year of chemistry and a year of physics are also necessary. Deficiencies in prerequisites may be made up concurrently with graduate work. The verbal and quantitative parts of the Graduate

Record Examination are generally required for admission to the graduate program, and the applicant must file three personal letters of recommendation before acceptance. Students transferring from other fields should make an appointment with the Graduate Officer or the Department Chairperson who will review the applicant's background and make recommendations regarding the graduate program.

Curriculum Requirements

Candidates must complete 29 credits in course work and 3 credits in a research paper (Plan B) or 32 credit course work (Plan C). The graduate program may be modified by the Geology Department to conform to the needs of individual candidates. Candidacy for the Master's degree is established by submitting an acceptable Plan of Work to the Graduate Officer of the College of Liberal Arts and Sciences. This plan must be submitted and approved by the College by the time twelve graduate credits have been earned. For Plan B, once candidacy is established, the student will choose a mentor in the Geology department for taking GEL 7999 *Research Paper* course in Geology.

Graduation Requirements

All course work must be completed in accordance with the regulations of the graduate school and College of Liberal Arts and Sciences. We require 29 credits of course work and 3 credits of a research paper M.A. for Plan B and 32 credits of course work for Plan C. We include requirements that only up to a maximum out of 8 credits can be taken outside the Geology Department and a maximum of 4 Geology credits is allowed as a Directed Study (GEL-7990).

Program Administration

The chair will oversee the program and graduate Director will advise the students.

Budget and Resource Requirements

There is no cost to the Department, College, or University of this change.

Accreditation

No accreditation review is required for the establishment for this new program.

Approvals

This proposal was approved by the faculty of the Geology Department, the College of Liberal Arts and Sciences Faculty Council and Faculty Assembly, the Graduate Council, Dean of the Graduate School, and the Provost.