Expected Outcomes: 1. Geology Skills and Knowledge

Students completing the M.S. program in Geology, either via the thesis or non-thesis option, will acquire the skills and knowledge appropriate to a post-graduate degree from a major educational institution.

Assessment methods

Method: 1a. Oral Examination

Degree candidates for the M.S. degree in Geology will be given a comprehensive oral examination at the end of their last semester. The examination includes the following subsections: (1) knowledge and understanding of previous studies; (2) research methodology; (3) discussion, including understanding of the significance of their work; (4) verbal expression; (5) written expression; and (6) knowledge of discipline.

Findings:

All seven students passed the examination with no major problems. Most students did well in the areas of technical knowledge and understanding of previous studies (no. 1); research methodology (no. 2); and knowledge of discipline (no. 6). Some students have substantial problems with verbal (4) and written (5) expression, especially those for whom English is not their primary language. Additionally a few students had difficulty with recognizing the contribution of their research (no. 3) and with critical thinking.

How did you use findings for improvement?

Individual thesis supervisors have addressed the issues of special concern during their progress meetings with graduate students. In addition to the increased emphasis on oral and written communication by individual faculty, international students are to receive additional attention, both inside the Department through Geocommunication (GEOL 7100), which is now taught every year, and through University services.

Additional comments:

None

Method: 1b. Student Perceptions of Knowledge

Graduating students will be asked to respond to the following statement, ‘I feel that I have mastered the skills and knowledge expected of a Master of Science graduate in the geological sciences.’

Findings:

All seven of the graduating students agreed or strongly agreed with the statement above.

How did you use findings for improvement?

This basic question was followed by a discussion with the students so that we could assess their perceptions of the specific strengths and weaknesses of the program or of their mastery of subject areas. We are currently continuing the compilation of a data-base of these responses so that they can be considered in discussions of possible curriculum changes and new faculty hires.
Additional comments:
None

**Expected Outcomes : 2. Communication skills**

Graduates of the M.S. program in Geology will be able to communicate research results in written and oral form in a professional manner.

**Assessment methods**

**Method : 2a. Professional Presentations**

Students in the M.S. degree program in Geology will be encouraged to deliver a presentation at a professional meeting. The expectation is that seventy-five (75) percent of the students who complete the M.S. degree program in Geology will have delivered a presentation (poster or talk) at a sectional or national professional meeting.

**Findings:**

Of the seven graduating Masters students in AY 2011-2012, five (71.4%) delivered one or more presentations (posters) at professional meetings. Three of these students presented 2 or more posters.

**How did you use findings for improvement?**

Our M.S. candidates continue to be very active in this area. However, the students should be encouraged to give oral presentations when appropriate.

**Additional comments:**

None

**Method : 2b. Manuscript Preparation**

Degree candidates for the M.S. degree in Geology will be encouraged to publish the results of their research in accepted professional journals. The goal is that fifty (50) percent of the degree candidates will participate in the preparation of one or more journal articles either during their tenure as students in the Geology M.S. program or within one-two years after graduation.

**Findings:**

Two of the students were able to submit manuscripts for publication during their tenure as graduate students at Auburn University, and three more are currently actively engaged in manuscript preparation. Thus, five out of seven (71.4%) have met this criterion, which exceeded our expectations.

**How did you use findings for improvement?**

We are using the good examples of recent graduates to inspire current students to participate in manuscript preparation. We are also continuing to work with recent alumni to finish and submit manuscripts derived from their theses.

**Additional comments:**

None

**Expected Outcomes : 3. Professional Employment/Ph.D. Program**
Graduates of the M.S. program in Geology will be well prepared for professional employment and/or for admission into a Ph.D. program in the geological sciences.

**Assessment methods**

**Method**: 3a. Placement of Graduates

The Department will monitor the employment status of M.S. graduates after they leave the University.

**Findings**:

Of the seven students who received their M.S. degrees in Geology in AY 2011-2012, five elected to pursue professional employment in geology. Three of these (60%) have found employment in the geological sciences. These positions were in the areas of mining, oil and gas, and environmental science (federal government). The remaining two students, including one international student, are still looking for a position. Two of the graduates elected to enter Ph.D. programs, and both were accepted (Oklahoma State University and LSU).

**How did you use findings for improvement?**

We are continuing to follow the progress of the students who are underemployed so that we may learn the nature of the problem. On the surface, it appears that this year’s M.S. (and B.S.) students are having more difficulty than in the past few years. With regard to Ph.D. applicants, the one student who was not accepted was a poor student throughout her undergraduate years.

**Additional comments**:

None