Analysis Questions and Analysis Answers

For Academic Programs

Informed by your assessment activities related to student learning, what changes have you made in your degree program in the last three to five years? Describe the changes (e.g., curriculum revision, new courses, faculty development), the general results that prompted the changes (e.g., student performance on an assessment measure), and any impact on student learning that you might attribute to these changes.

Geological Sciences has made two significant changes to its graduate curriculum: 1) The addition of a required course for all students (MS and Ph.D.) regardless of research area that focuses on effective communication of scientific ideas. 2) A new requirement that all Ph.D. students must submit one paper to a peer-reviewed journal prior to candidacy, and at least 3 papers must be submitted prior to the student’s final dissertation defense. At the MS level, students are required to make at least one professional conference presentation before graduating.

These changes grew from faculty interpretation of formal assessment data as well as general observations of student performance over recent years related to public speaking, scientific writing, and conference presentations. The impact of these changes is yet to be determined as both changes will not take full effect until Fall 2014.

Mission / Purpose

The Department of Geological Sciences (DGS) is committed to providing strong educational and research programs that benefit students, the science, society, and the state of Alabama. Our mission is to:

1. Maintain quality educational programs that provide basic geologic instruction to nonmajors.
2. Maintain quality undergraduate programs that prepare students for graduate education or careers in the geological sciences.
3. Maintain a quality graduate program that provides M.S. and Ph.D. students with the skills necessary to carry out independent research and obtain employment in a specialized area of the geological sciences.
4. Develop and maintain research programs that contribute new knowledge to the geological sciences.
5. Provide service to the scientific community and the public.
6. Assist in the sound and sustainable economic development of the region, state, and nation.

Student Learning Outcomes, with Any Associations and Related Measures, Targets, Findings, and Action Plans

SLO 1: Independent Scientific Research

Students will demonstrate the knowledge and skills to conduct independent scientific research

Connected Document
MS Geology Curriculum Maps

Relevant Associations:

Standard Associations

SACS 3.3.1
3.3.1.1 Educational programs, to include student learning outcomes
3.3.1.4 Research within its educational mission

General Education/Core Curriculum Associations

9 Natural Science - SLO is related to a hands-on laboratory or field experience that emphasizes the scientific method and analysis of data
11 Writing - SLO is related to building on students’ competency in academic writing skills and aims to extend those skills

Strategic Plan Associations

University of Alabama
1.1 Promote and enhance areas of academic, scholarship, and research excellence.
4.3 Produce scholars who will become academic and civic leaders in their disciplines.
4.4 Produce graduates who will serve as effective leaders in Alabama’s government, businesses, educational systems, health care, the arts, and other professions, and who will be leaders in their communities.

Related Measures

M 1: Writing of a Thesis Proposal
40% of M.S. students will successfully write a thesis proposal with the approval of all committee members by the end of their second semester in residence.

Source of Evidence: Writing exam to assure certain proficiency level

Target:
No Target Established
**Related Action Plans (by Established cycle, then alpha):**
For full information, see the Details of Action Plans section of this report.

**Enforcement of timeline**
*Established in Cycle: 2011-2012*
The DGS is putting a greater emphasis on completing program requirements in a timely fashion. In addition to faculty making grea...

**M 2: Presentation of Thesis Proposal**
40% of M.S. students will successfully present their thesis proposal with the approval of all committee members by the end of their second semester in residence.

Source of Evidence: Presentation, either individual or group

**Target:**
No Target Established

**Related Action Plans (by Established cycle, then alpha):**
For full information, see the Details of Action Plans section of this report.

**Enforcement of timeline**
*Established in Cycle: 2011-2012*
Efforts are being made to change departmental record keeping. Currently the date that a proposal is submitted is not distinguish...

**SLO 2: Presentation Skills**
Students will be able to present their results to groups of their peers and the public.

**Connected Document**
MS Geology Curriculum Maps

**Relevant Associations:**

**Standard Associations**

SACS 3.3.1
3.3.1.1 Educational programs, to include student learning outcomes
3.3.1.4 Research within its educational mission

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9 Natural Science - SLO is related to a hands-on laboratory or field experience that emphasizes the scientific method and analysis of data

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**Related Measures**

**M 3: Students will have presented their research results**
By the end of their program, 90% of students will have presented their research results at a national or international conference.

Source of Evidence: Presentation, either individual or group

**Target:**
No Target Established

**Related Action Plans (by Established cycle, then alpha):**
For full information, see the Details of Action Plans section of this report.

**External presentations**
*Established in Cycle: 2011-2012*
At the new student orientation in August increased emphasis will be made on the importance of presenting at conferences. It will...

**M 4: Departmental Presentations (GEO-534/5)**
By the end of their degree program all students will have completed two departmental presentations (GEO-534), or one departmental and one conference presentation.

Source of Evidence: Presentation, either individual or group

**Target:**
No Target Established

**SLO 3: Written and Oral Presentation of Final Results**
Students will be able present and defend their final research results in both a written and oral form to groups of their peers, departmental faculty, and experts within their discipline.

**Connected Document**
MS Geology Curriculum Maps

**Relevant Associations:**

**Standard Associations**

SACS 3.3.1
3.3.1.1 Educational programs, to include student learning outcomes
3.3.1.4 Research within its educational mission
General Education/Core Curriculum Associations

9  Natural Science - SLO is related to a hands-on laboratory or field experience that emphasizes the scientific method and analysis of data
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Related Measures

M 5: Defense of Final Results
50% of students will defend their results successfully to an interdisciplinary departmental audience by the end of their fourth semester in residence.
Source of Evidence: Senior thesis or culminating major project
Target: No Target Established

M 6: Journal Article Submission
Within 6 months of their final defense, 20% of M.S. students will have submitted a paper to a refereed journal.
Source of Evidence: Senior thesis or culminating major project
Target: No Target Established

Related Action Plans (by Established cycle, then alpha):
For full information, see the Details of Action Plans section of this report.

Published papers
Established in Cycle: 2011-2012
During the August orientation students will be made aware of the importance to their future goals and the reputation of their re...

SLO 4: Participation In Research Specific Extracurricular Activities
Students will take part in extracurricular activities that will prepare them for a Ph.D. program or employment in a specialized area of geological sciences.

Connected Document
MS Geology Curriculum Maps

Relevant Associations:

Standard Associations
SACS 3.3.1
3.3.1.1 Educational programs, to include student learning outcomes
3.3.1.4 Research within its educational mission

General Education/Core Curriculum Associations
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Related Measures

M 7: Internship Participation
During the course of their program, 20% of M.S. students will participate in a co-op, internship program, or participate in a research experience at a lab facility outside of The University of Alabama.
Source of Evidence: Field work, internship, or teaching evaluation
Target: No Target Established

M 8: External Funding Applications
During the course of their program, 30% of M.S. students will apply for external funding to support their research.
Source of Evidence: Academic direct measure of learning - other
Target: No Target Established

Details of Action Plans for This Cycle (by Established cycle, then alpha)

Enforcement of timeline
Efforts are being made to change departmental record keeping. Currently the date that a proposal is submitted is not distinguished from the date that it is presented. The DGS is putting a greater emphasis on completing program
requirements in a timely fashion. In addition to faculty making greater efforts to academically encourage students to meet these goals, the DGS is enforcing the requirement that this goal must be met in order for a student to be eligible for DGS scholarships and continued assistantship funding.

**Established in Cycle:** 2011-2012  
**Implementation Status:** In-Progress  
**Priority:** High

**Relationships (Measure | Outcome/Objective):**  
Measure: Presentation of Thesis Proposal | Outcome/Objective: Independent Scientific Research

**Enforcement of timeline**  
The DGS is putting a greater emphasis on completing program requirements in a timely fashion. In addition to faculty making greater efforts to academically encourage students to meet these goals, the DGS is enforcing the requirement that this goal must be met in order for a student to be eligible for DGS scholarships and continued assistantship funding.

**Established in Cycle:** 2011-2012  
**Implementation Status:** In-Progress  
**Priority:** High

**Relationships (Measure | Outcome/Objective):**  
Measure: Writing of a Thesis Proposal | Outcome/Objective: Independent Scientific Research

**External presentations**  
At the new student orientation in August increased emphasis will be made on the importance of presenting at conferences. It will be emphasized to the students that funding is available to support this.

**Established in Cycle:** 2011-2012  
**Implementation Status:** In-Progress  
**Priority:** High

**Relationships (Measure | Outcome/Objective):**  
Measure: Students will have presented their research results | Outcome/Objective: Presentation Skills

**Published papers**  
During the August orientation students will be made aware of the importance to their future goals and the reputation of their research group of publishing their research results.

**Established in Cycle:** 2011-2012  
**Implementation Status:** In-Progress  
**Priority:** High

**Relationships (Measure | Outcome/Objective):**  
Measure: Journal Article Submission | Outcome/Objective: Written and Oral Presentation of Final Results
University of Alabama

Detailed Assessment Report
2012-2013 Geology M.S.
As of: 7/31/2014 08:53 AM CENTRAL

Mission / Purpose
The Department of Geological Sciences (DGS) is committed to providing strong educational and research programs that benefit students, the science, society, and the state of Alabama. Our mission is to:

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3. Maintain a quality graduate program that provides M.S. and Ph.D. students with the skills necessary to carry out independent research and obtain employment in a specialized area of the geological sciences.
4. Develop and maintain research programs that contribute new knowledge to the geological sciences.
5. Provide service to the scientific community and the public.
6. Assist in the sound and sustainable economic development of the region, state, and nation.

Student Learning Outcomes, with Any Associations and Related Measures, Targets, Findings, and Action Plans

SLO 1: Independent Scientific Research
Students will demonstrate the knowledge and skills to conduct independent scientific research

Connected Document
MS Geology Curriculum Maps

Relevant Associations:

Standard Associations
SACS 3.3.1
3.3.1.1 Educational programs, to include student learning outcomes
3.3.1.4 Research within its educational mission

General Education/Core Curriculum Associations
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Related Measures

M 1: Writing of a Thesis Proposal
40% of M.S. students will successfully write a thesis proposal with the approval of all committee members by the end of their second semester in residence.

Source of Evidence: Writing exam to assure certain proficiency level

Target:
No Target Established

Finding (2012-2013) - Target: Met
Of the 11 M.S. students enrolled in the DGS M.S. program who were in their second or later semester at the end of the 2012/13 academic year 5 (45%) defended their thesis proposal by the end of their second semester. This is a significant improvement over last year.

Related Action Plans (by Established cycle, then alpha):
For full information, see the Details of Action Plans section of this report.

Enforcement of timeline
Established in Cycle: 2011-2012
The DGS is putting a greater emphasis on completing program requirements in a timely fashion. In addition to faculty making great...

M 2: Presentation of Thesis Proposal
40% of M.S. students will successfully present their thesis proposal with the approval of all committee members by the end of their second semester in residence.

Source of Evidence: Presentation, either individual or group

Target:
No Target Established
Finding (2012-2013) - Target: Met
Of the 11 M.S. students enrolled in the DGS M.S. program who were in their second or later semester at the end of the 2012/13 academic year 4 (45%) had defended their thesis proposal by the end of their second semester.

Related Action Plans (by Established cycle, then alpha):
For full information, see the Details of Action Plans section of this report.

Enforcement of timeline
Established in Cycle: 2011-2012
Efforts are being made to change departmental record keeping. Currently the date that a proposal is submitted is not distinguish...

SLO 2: Presentation Skills
Students will be able to present their results to groups of their peers and the public.

Connected Document
MS Geology Curriculum Maps

Relevant Associations:

Standard Associations
SACS 3.3.1
3.3.1.1 Educational programs, to include student learning outcomes
3.3.1.4 Research within its educational mission

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Related Measures

M 3: Students will have presented their research results
By the end of their program, 90% of students will have presented their research results at a national or international conference.

Source of Evidence: Presentation, either individual or group

Target:
No Target Established

Finding (2012-2013) - Target: Not Reported This Cycle
Data are not available for this measure currently.

Related Action Plans (by Established cycle, then alpha):
For full information, see the Details of Action Plans section of this report.

External presentations
Established in Cycle: 2011-2012
At the new student orientation in August increased emphasis will be made on the importance of presenting at conferences. It will...

M 4: Departmental Presentations (GEO-534/5)
By the end of their degree program all students will have completed two departmental presentations (GEO-534)

Source of Evidence: Presentation, either individual or group

Target:
No Target Established

Finding (2012-2013) - Target: Met
All applicable students made department presentations.

SLO 3: Written and Oral Presentation of Final Results
Students will be able present and defend their final research results in both a written and oral form to groups of their peers, departmental faculty, and experts within their discipline.

Connected Document
MS Geology Curriculum Maps

Relevant Associations:

Standard Associations
SACS 3.3.1
3.3.1.1 Educational programs, to include student learning outcomes
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General Education/Core Curriculum Associations
9 Natural Science - SLO is related to a hands-on laboratory or field experience that emphasizes the scientific method and analysis of data
11 Writing - SLO is related to building on students' competency in academic writing skills and aims to extend those skills

Strategic Plan Associations
### Related Measures

**M 5: Defense of Final Results**
50% of students will defend their results successfully to an interdisciplinary departmental audience by the end of their fourth semester in residence.

**Source of Evidence:** Senior thesis or culminating major project

**Target:**
No Target Established

**Finding (2012-2013) - Target: Not Met**
1 of 9 students (11%) in this category defend their results. This is being addressed under new Graduate handbook rules governing student expectations and changes to our seminar schedule.

**M 6: Journal Article Submission**
Within 6 months of their final defense, 20% of M.S. students will have submitted a paper to a refereed journal.

**Source of Evidence:** Senior thesis or culminating major project

**Target:**
No Target Established

**Finding (2012-2013) - Target: Met**
5 of 12 students (42%) in the category submitted papers in the allotted time period.

**Related Action Plans (by Established cycle, then alpha):**
For full information, see the Details of Action Plans section of this report.

**Published papers**
*Established in Cycle: 2011-2012*
During the August orientation students will be made aware of the importance to their future goals and the reputation of their re...

### SLO 4: Participation In Research Specific Extracurricular Activities

Students will take part in extracurricular activities that will prepare them for a Ph.D. program or employment in a specialized area of geological sciences.

**Connected Document**
[MS Geology Curriculum Maps](#)

**Relevant Associations:**

**Standard Associations**

- SACS 3.3.1
  - 3.3.1.1 Educational programs, to include student learning outcomes
  - 3.3.1.4 Research within its educational mission

**General Education/Core Curriculum Associations**

9 Natural Science - SLO is related to a hands-on laboratory or field experience that emphasizes the scientific method and analysis of data

**Strategic Plan Associations**

University of Alabama

1.1 Promote and enhance areas of academic, scholarship, and research excellence.
4.3 Produce scholars who will become academic and civic leaders in their disciplines.
4.4 Produce graduates who will serve as effective leaders in Alabama’s government, businesses, educational systems, health care, the arts, and other professions, and who will be leaders in their communities.

### Related Measures

**M 7: Internship Participation**
During the course of their program, 20% of M.S. students will participate in a co-op, internship program, or participate in a research experience at a lab facility outside of The University of Alabama.

**Source of Evidence:** Field work, internship, or teaching evaluation

**Target:**
No Target Established

**Finding (2012-2013) - Target: Met**
8 of 12 students (66%) in this category served as interns in the time period in question.

**M 8: External Funding Applications**
During the course of their program, 30% of M.S. students will apply for external funding to support their research.

**Source of Evidence:** Academic direct measure of learning - other

**Target:**
No Target Established

**Finding (2012-2013) - Target: Met**
4 out of 12 students (33%) in the category pursued external funding.

**Details of Action Plans for This Cycle (by Established cycle, then alpha)**
Enforcement of timeline
Efforts are being made to change departmental record keeping. Currently the date that a proposal is submitted is not distinguished from the date that it is presented. The DGS is putting a greater emphasis on completing program requirements in a timely fashion. In addition to faculty making greater efforts to academically encourage students to meet these goals, the DGS is enforcing the requirement that this goal must be met in order for a student to be eligible for DGS scholarships and continued assistantship funding.

Established in Cycle: 2011-2012
Implementation Status: In-Progress
Priority: High
Relationships (Measure | Outcome/Objective):
  Measure: Presentation of Thesis Proposal | Outcome/Objective: Independent Scientific Research

Enforcement of timeline
The DGS is putting a greater emphasis on completing program requirements in a timely fashion. In addition to faculty making greater efforts to academically encourage students to meet these goals, the DGS is enforcing the requirement that this goal must be met in order for a student to be eligible for DGS scholarships and continued assistantship funding.

Established in Cycle: 2011-2012
Implementation Status: In-Progress
Priority: High
Relationships (Measure | Outcome/Objective):
  Measure: Writing of a Thesis Proposal | Outcome/Objective: Independent Scientific Research

External presentations
At the new student orientation in August increased emphasis will be made on the importance of presenting at conferences. It will be emphasized to the students that funding is available to support this.

Established in Cycle: 2011-2012
Implementation Status: In-Progress
Priority: High
Relationships (Measure | Outcome/Objective):
  Measure: Students will have presented their research results | Outcome/Objective: Presentation Skills

Published papers
During the August orientation students will be made aware of the importance to their future goals and the reputation of their research group of publishing their research results.

Established in Cycle: 2011-2012
Implementation Status: In-Progress
Priority: High
Relationships (Measure | Outcome/Objective):
  Measure: Journal Article Submission | Outcome/Objective: Written and Oral Presentation of Final Results
Mission / Purpose
As a unit of the College of Arts and Sciences, the Department of Geography is committed to fulfill the basic missions established for the college in terms of quality teaching, research and creative activities, and service to the state and country. The discipline of geography is concerned with the description, analysis and explanation of the variable character of the earth's surface. Geography seeks to explain how the subsystems of the physical environment are organized, and how humans distribute themselves in relation to physical features and human activity. Thus, the science of geography is concerned with the development and testing of theories that explain and predict the location, distribution and interrelationships of the world's human and environmental systems. As part of the College of Arts and Sciences, the Department of Geography makes an important contribution to the Liberal Arts Curriculum by providing students an understanding of the variety and complexity of the world's cultural, economic, and environmental systems and their interactions. As part of the University and State of Alabama, the Department of Geography plays an important role in training professionals, conducting applied research, and pursuing scholarly endeavors pertinent to the specialties of the research faculty.

Goals
G 1: Demonstrate broad background
Students will demonstrate a broad background

Student Learning Outcomes, with Any Associations and Related Measures, Targets, Findings, and Action Plans
SLO 1: Demonstrate broad background
Students will demonstrate a broad background in the discipline of geography, as well as an in depth background in their area of concentration as developed in consultation with their advisor.

Connected Documents
Curriculum Map II-Geography M.S.
Curriculum Maps I-Geography M.S.

Relevant Associations:
Standard Associations
SACS 3.3.1
3.3.1.1 Educational programs, to include student learning outcomes
3.3.1.3 Educational support services

Strategic Plan Associations
University of Alabama
1.1 Promote and enhance areas of academic, scholarship, and research excellence.

Related Measures
M 1: Exam Performance
Each student's breadth and depth are tested in a qualifying exam in their third or fourth semester in residence. A rubric is used to assess understanding of topic, articulation of argument, presentation of evidence, implication of points argued and logical progression of ideas. Out of a maximum rubric score of 120, the student is expected to score 100.
Source of Evidence: Standardized test of subject matter knowledge
Target:
No Target Established
Finding (2011-2012) - Target: Not Reported This Cycle
For the qualifying examination, 50 percent of the students scored 100 or better out of 120 points on a rubric.

M 3: Performance on post-test in GY500
Percent of students who achieve 70% on a post-test in GY 500
Source of Evidence: Faculty pre-test / post-test of knowledge mastery
Target:
No Target Established
Finding (2011-2012) - Target: Not Reported This Cycle
From a list of options, students were asked to select the option that best described their background knowledge of 20 items pertaining to research traditions and methods in geography.

- In a pre-test, 70 percent of students had never heard of the item or did not know what it meant in half or more of the 20 items listed. Only 30 percent of students had a clear idea or some idea of what the item meant and could explain 50 percent or more of the 20 items listed.
- In the post-test administered at the end of the semester, there were no students who never heard of the concept or did not know what the concept meant for half or more of the 20 concept items listed. All students had a clear idea or some idea of what the concept meant and could explain 50 percent or more
of the 20 concepts items.

**SLO 2: Demonstrate ability to carry out research project**
Students will demonstrate their ability to carry out an original research project.

**Connected Documents**
- Curriculum Map II-Geography M.S.
- Curriculum Maps I-Geography M.S.

** Relevant Associations:**

**Standard Associations**
- SACS 3.3.1
  - 3.3.1.4 Research within its educational mission

**Strategic Plan Associations**
- University of Alabama
  - 1.1 Promote and enhance areas of academic, scholarship, and research excellence.
  - 2.8 Promote collaborative research approaches to address large scale problems of regional and national interest.
  - 4.3 Produce scholars who will become academic and civic leaders in their disciplines.

**Related Measures**

**M 2: Student Rate on GY523**
Students able to demonstrate competency in data presentation by conducting original quantitative research with a conference quality poster

Source of Evidence: Student course evaluations on learning gains made

**Target:**
No Target Established

**Finding (2011-2012) - Target: Not Reported This Cycle**

- At the end of the Fall 2011 Semester, 63 percent of the students had acquired exemplary knowledge; 18 percent was satisfactory; and 18 percent was developing knowledge in data presentation and ability to carry out research project.

**M 4: Performance on thesis project**
Students have the option of writing a thesis (requiring a defense) or a non-thesis project. A rubric will be used to evaluate thesis on the basis of problem definition, hypothesis, research methods, data analysis, and presentation of findings.

Source of Evidence: Senior thesis or culminating major project

**Target:**
Out of a maximum of rubric score of 120, the student is expected to score 100.

**Finding (2011-2012) - Target: Not Reported This Cycle**
Four Master students defended and submitted their theses to the Graduate School but did not meet the deadline for Spring 2012 graduation. These students will officially graduate summer 2012. No students graduated Fall 2011.

**M 5: Performance on non-thesis projects**
For non-thesis projects a rubric will be used on the basis of the criteria stated in Measure 2.1 above.

Source of Evidence: Senior thesis or culminating major project

**Target:**
No Target Established

**Finding (2011-2012) - Target: Not Reported This Cycle**
No non-thesis projects submitted.

**M 6: Student research proposal rate**
Percent of students research proposal rated as satisfactory or exemplary on rubric in GY 500.

Source of Evidence: Student course evaluations on learning gains made

**Target:**
No Target Established

**Finding (2011-2012) - Target: Not Reported This Cycle**
A rubric was used to evaluate research proposals on the basis of problem definition, literature review, analysis and mechanics in GY 500. Five out of 12 research proposals submitted were rated as satisfactory or exemplary on rubric.

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**Other Outcomes, with Any Associations and Related Measures, Targets, Findings, and Action Plans**

**OthOtm 3: Improve program quality**
The program will improve and sustain a high level of recognized quality.

** Relevant Associations:**

**Standard Associations**
- SACS 3.3.1
  - 3.3.1.1 Educational programs, to include student learning outcomes

**Strategic Plan Associations**
- University of Alabama
  - 1.1 Promote and enhance areas of academic, scholarship, and research excellence.
  - 1.2 Increase the recognition of the University's service priorities that enhance the quality of life for all
Alabamians.
1.3 Improve communication and increase collaboration among academic and administrative units.
1.4 Align resources to most effectively support academic, scholarship, and research excellence priorities.
1.5 Effectively use course offerings and class size to support priorities.
1.6 Streamline administrative functions and improve their effectiveness.
1.7 Sharpen assessment activities of all campus functions and link those to an enhanced planning process.
1.8 Develop the research infrastructure and enhance the library resources necessary to be competitive for grants and contracts.
2.1 Provide competitive salaries and benefits for faculty and staff.
2.2 Ensure performance-based merit salary increases.
2.3 Create new types of faculty and staff positions that reflect the changing role of technical, research, creative, and clinical activities.
2.4 Increase the number of graduate research and teaching assistants and provide them with competitive salaries and benefits.
2.5 Improve communication among all constituent groups in campus decision-making processes.
2.8 Promote collaborative research approaches to address large scale problems of regional and national interest.
3.2 Expand the development of living/learning communities.
3.4 Increase involvement of undergraduate students in research and scholarly activities.
3.5 Continue progress in achieving diversity among faculty, staff, students and administration.
3.8 Equip classrooms, libraries, and laboratories for state-of-the-art learning.
3.10 Continue to modernize information technology resources.
3.11 Increase attention to, and rewards for, excellence in teaching.
3.12 Increase the level of academic scholarship support.
3.14 Provide career preparation and employment services that lead graduates to satisfying and productive careers and professions.
4.1 Provide leadership in addressing economic, social, and cultural issues in Alabama through research and outreach activities.
4.3 Produce scholars who will become academic and civic leaders in their disciplines.

Related Measures

M 7: Review strengths
8-year program review strengths
Source of Evidence: Academic indirect indicator of learning - other

Target:
No Target Established

Finding (2011-2012) - Target: Not Reported This Cycle
- Department considered a collegial group with significant overt internal rifts, which will help in the organization and implementation of a doctoral program
- Department has ample office space, particularly for graduate students.
- Department received significant improvements in instructional technology since the last program review.
- Cartography Lab’s service effort is commendable, particularly the Alabama Maps online site.

M 8: Review opportunities
8-year program review opportunities for improvement
Source of Evidence: Academic indirect indicator of learning - other

Target:
No Target Established

Finding (2011-2012) - Target: Not Reported This Cycle
- Hire of new department chair.
- Addition of new faculty.
- Increase in research productivity and number of proposals submissions.
- Graduate students advising process.
- Limited number of graduate-only course offerings.
- Need for GIScience and remote sensing faculty.
- Future of the non-thesis option.
- Graduate recruitment and admission.
- Engagement with other departments.
- Seminar series involving graduate students.

M 9: List of changes since last review
List of changes made as a result of the review (or since last year)
Source of Evidence: Academic indirect indicator of learning - other

Target:
No Target Required

Finding (2011-2012) - Target: Not Reported This Cycle
- New Chair joins the Department
- New faculty position allotted.
- Strategic plan initiated.
- New Mission Statement developed and approved.
- Department Web Site updated.
- Graduate program recruiting trips initiated.
- Search for new Physical Geographer completed.
- Space renovation projects initiated.
Revised version of the Graduate Handbook

**OthOtcm 4: Optimal Program Enrollments and Degree Completion**
The program will build and sustain an optimal level of annual program enrollments and degree completion.

**Relevant Associations:**

**Standard Associations**

**SACS 3.3.1**

3.3.1.3 Educational support services

**Strategic Plan Associations**

University of Alabama

1.5 Effectively use course offerings and class size to support priorities.

3.2 Expand the development of living/learning communities.

3.5 Continue progress in achieving diversity among faculty, staff, students and administration.

**Related Measures**

**M 10: Number of Students in MS Program**

Number of students enrolled in the graduate program for the last three fall semesters

Source of Evidence: Academic indirect indicator of learning - other

**Target:**

No Target Established

**Finding (2011-2012) - Target: Not Reported This Cycle**

Number of graduate students for:

- Fall 2009, 26
- Fall 2010, 32
- Fall 2011, 29

**M 11: Number of graduate degrees awarded**

Number of graduate degrees awarded for the last three years

Source of Evidence: Academic indirect indicator of learning - other

**Target:**

No Target Established

**Finding (2011-2012) - Target: Not Reported This Cycle**

Number of graduate degrees awarded for:

- 2008-2009, 10
- 2009-2010, 8
- 2010-2011, 7

**M 12: List of changes since last assessment**

List of changes made as a result of the last assessment

Source of Evidence: Academic indirect indicator of learning - other

**Target:**

No Target Established

**OthOtcm 5: Highly Valued by Program Graduates**
The program will be highly valued by its program graduates and other key constituencies it serves.

**Relevant Associations:**

**Standard Associations**

**SACS 3.3.1**

3.3.1.1 Educational programs, to include student learning outcomes

**Strategic Plan Associations**

University of Alabama

3.9 Ensure user-friendly support services for students, faculty, and staff.

3.11 Increase attention to, and rewards for, excellence in teaching.

3.12 Increase the level of academic scholarship support.

3.13 Ensure the campus environment is safe for all members of the campus community.

3.14 Provide career preparation and employment services that lead graduates to satisfying and productive careers and professions.

4.1 Provide leadership in addressing economic, social, and cultural issues in Alabama through research and outreach activities.

4.2 Promote collaboration with business, non-profit, and governmental agencies to advance the economic, social, and cultural condition of Alabama.

4.3 Produce scholars who will become academic and civic leaders in their disciplines.

4.4 Produce graduates who will serve as effective leaders in Alabama's government, businesses, educational systems, health care, the arts, and other professions, and who will be leaders in their communities.

4.5 Develop and reward leadership skills among students, faculty, and staff.

**Related Measures**

**M 12: List of changes since last assessment**

List of changes made as a result of the last assessment

Source of Evidence: Academic indirect indicator of learning - other

**Target:**
• New Chair joins the Department.
• Graduate Committee and Curriculum Committee given greater responsibilities.
• Graduate program recruiting trips initiated.
• Search for new Physical Geographer completed.
• Space renovation projects initiated.
• Revised version of the Graduate Handbook.

M 13: Graduating Graduate students survey results
Results from University-wide Graduating Survey for graduate students
Source of Evidence: Student satisfaction survey at end of the program
Target:
No Target Established
Finding (2011-2012) - Target: Not Reported This Cycle
Survey results not available.

M 14: Exit Survey Results
Results from exit survey for graduates
Source of Evidence: Student satisfaction survey at end of the program
Target:
No Target Established
Finding (2011-2012) - Target: Not Reported This Cycle
Survey results not available.

OthOtcm 6: Department Outcome: Understanding of the world’s systems
The department seeks to teach students to understand the variety and complexity of the world’s natural, cultural, economic, and environmental systems and their interactions.

Relevant Associations:

Standard Associations
SACS 3.3.1
3.3.1.1 Educational programs, to include student learning outcomes

Strategic Plan Associations
University of Alabama
1.1 Promote and enhance areas of academic, scholarship, and research excellence.
2.3 Create new types of faculty and staff positions that reflect the changing role of technical, research, creative, and clinical activities.
2.7 Expand the University’s emphasis on global and cultural studies.
3.2 Expand the development of living/learning communities.
3.3 Encourage and reward creative strategies for engaging students in learning and life-long learning.
3.4 Increase involvement of undergraduate students in research and scholarly activities.
3.5 Continue progress in achieving diversity among faculty, staff, students and administration.
3.8 Equip classrooms, libraries, and laboratories for state-of-the-art learning.
3.10 Continue to modernize information technology resources.
3.11 Increase attention to, and rewards for, excellence in teaching.
3.12 Increase the level of academic scholarship support.

Related Measures

M 15: Total credit hour production
Total semester credit hour production for the last three fall semesters
Source of Evidence: Academic indirect indicator of learning - other
Target:
No Target Established
Finding (2011-2012) - Target: Not Reported This Cycle
Total graduate credit hour production for:
• Fall 2009, 225
• Fall 2010, 281
• Fall 2011, 214

M 16: Number of Courses and Sections
Number of courses and sections offered for the last three fall semesters
Source of Evidence: Academic indirect indicator of learning - other
Target:
No Target Established
Finding (2011-2012) - Target: Not Reported This Cycle
Eleven graduate courses and sections were offered in Fall 2009, 2010 and 2011.

M 17: Number of Degrees Awarded to ACHE
Relation of number of degrees awarded to ACHE viability standards
Source of Evidence: Academic indirect indicator of learning - other
Target:
No Target Established
Finding (2011-2012) - Target: Not Reported This Cycle
The number of graduate degrees awarded for:
• 2009-2010, 8
• 2010-2011, 7
• 2011-2012, 4 (graduated summer 2012)

OthOtcm 7: Department Outcome: Develop and disseminate geographic research
Develop and disseminate geographic research pertaining to the physical and human environments, and the application of geographic information techniques by faculty.

Relevant Associations:

Standard Associations
SACS 3.3.1
3.3.1.4 Research within its educational mission
3.3.1.5 Community/public service within its educational mission

Strategic Plan Associations
University of Alabama
1.1 Promote and enhance areas of academic, scholarship, and research excellence.
1.4 Align resources to most effectively support academic, scholarship, and research excellence priorities.
1.8 Develop the research infrastructure and enhance the library resources necessary to be competitive for grants and contracts.
2.3 Create new types of faculty and staff positions that reflect the changing role of technical, research, creative, and clinical activities.
2.4 Increase the number of graduate research and teaching assistants and provide them with competitive salaries and benefits.
2.7 Expand the University's emphasis on global and cultural studies.
2.8 Promote collaborative research approaches to address large scale problems of regional and national interest.
3.4 Increase involvement of undergraduate students in research and scholarly activities.
3.10 Continue to modernize information technology resources.
4.1 Provide leadership in addressing economic, social, and cultural issues in Alabama through research and outreach activities.

Related Measures

M 18: Number of scholarly publications
At the end of the spring semester the assessment coordinator will count number of scholarly publications by faculty and students.

Source of Evidence: Academic indirect indicator of learning - other

Target:
No Target Established.

Finding (2011-2012) - Target: Not Reported This Cycle
Faculty published 17 refereed articles and 12 articles were accepted for publication. Three book chapters/proceedings papers/encyclopedia entries were published and 7 forthcoming.

M 19: Number of conference presentations
At end of spring semester assessment coordinator will count total conference presentations by faculty and students.

Source of Evidence: Academic indirect indicator of learning - other

Target:
No Target Established

Finding (2011-2012) - Target: Not Reported This Cycle
A total of 41 conference presentations.

M 20: Number of grant proposals and contracts
Number of grant proposals and contracts submitted, in force, and funded identified in Faculty Activity Reports

Source of Evidence: Academic indirect indicator of learning - other

Target:
No Target Established

Finding (2011-2012) - Target: Not Reported This Cycle
A total of 14 proposals (internal and external) were submitted during the academic year 2011-2012. Five faculty members were successful in winning external funding (either new or continuing).

OthOtcm 8: Department Outcome: Provide services
Provide services to profession, community, and institution.

Relevant Associations:

Standard Associations
SACS 3.3.1
3.3.1.5 Community/public service within its educational mission

Strategic Plan Associations
University of Alabama
1.2 Increase the recognition of the University's service priorities that enhance the quality of life for all Alabamians.
4.1 Provide leadership in addressing economic, social, and cultural issues in Alabama through research and outreach activities.
4.2 Promote collaboration with business, non-profit, and governmental agencies to advance the economic, social, and cultural condition of Alabama.
4.4 Produce graduates who will serve as effective leaders in Alabama's government, businesses, educational systems, health care, the arts, and other professions, and who will be leaders in their communities.
4.6 Promote leadership development among Alabama's community leaders, businesses, educational systems, healthcare systems, government agencies, arts organizations, and other vital areas of the state.
4.7 Support our alumni in serving as leaders in their professions and communities.

**Related Measures**

**M 21: Faculty's service**
Faculty's service to profession, community, and college and university identified in Faculty Activity Reports
Source of Evidence: Academic indirect indicator of learning - other

**Target:**
No Target Established

**Finding (2011-2012) - Target: Not Reported This Cycle**
Overall faculty service load is appropriate to a research department of this size.

**M 22: Department's service**
Department's service to community identified in Faculty Activity Reports
Source of Evidence: Academic indirect indicator of learning - other

**Target:**
No Target Established

**Finding (2011-2012) - Target: Not Reported This Cycle**
The focus is on services outside of the department, which is one measure of the Department's reputation.
Curriculum Maps #I  (In which courses or in what activities or assignments are Student Learning Outcomes Addressed)

Use "Introduce" when outcome is first addressed; “Reinforce” when outcome is reinforced; and “Master” when outcome is expected to be mastered. Note that you do not need to obtain a measure from every course in which an outcome is addressed (see Map #2)

<table>
<thead>
<tr>
<th>Course 1</th>
<th>GEO534/5</th>
<th>Reinforced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course 2</td>
<td>Thesis</td>
<td>Mastery</td>
</tr>
<tr>
<td>Course 3</td>
<td>Conference presentation</td>
<td>Mastery</td>
</tr>
<tr>
<td>Required Experience</td>
<td>Paper submission</td>
<td>Mastery</td>
</tr>
<tr>
<td>Required Task</td>
<td>Internship</td>
<td>Mastery</td>
</tr>
<tr>
<td>Required Task</td>
<td>Application for funding</td>
<td>Reinforced</td>
</tr>
</tbody>
</table>

Curriculum Map II  (What assessment measures will be employed in which courses/activities/assignments for each Student learning Outcome)

Indicate which measure is being obtained in which course by typing “Measure n.n” in the appropriate cell. If you’d rather use a description of the measure, that is fine. Also, indicate the year/semester in which the measure will be obtained (e.g., Fall 2011). Student learning outcomes must be assessed at least once within a 2 ½ year period. Note that a measure does not need to be obtained from every course in which an outcome is covered (see Map #1).

<table>
<thead>
<tr>
<th>Course 1</th>
<th>GEO534/5</th>
<th>departmental presentations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course 2</td>
<td>Thesis</td>
<td>write thesis proposal; present thesis proposal; defend results successfully to interdisciplinary departmental audience</td>
</tr>
<tr>
<td>Course 3</td>
<td>Conference presentation</td>
<td>external presentation</td>
</tr>
<tr>
<td>Required Experience</td>
<td>Paper submission</td>
<td>Submit paper to refereed journal</td>
</tr>
<tr>
<td>Required Task</td>
<td>Internship</td>
<td>co-op,</td>
</tr>
<tr>
<td>Internship program, or research experience outside of UA</td>
<td></td>
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<tr>
<td>------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required Task: Application for funding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>apply for external funding to support their research</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Optional Additional Narrative:** Use this space to provide any additional detail concerning the 2011-12 Department Assessment Plan