Program Outcomes and Assessment

Undergraduate Students

Graduates of the Department of Geological and Atmospheric Sciences will have the skills and knowledge to:

- Read and critically evaluate relevant professional literature;
- Think critically;
- Present information clearly in written and oral form;
- Work in a team environment;
- Appreciate and promote cultural diversity;
- Possess familiarity with the broad scope of the field of the discipline;
- Use appropriate tools from chemistry, physics, biology, mathematics, and computing to solve discipline-specific problems;
- Understand scientific principles and their application to scientific inquiry and to societal concerns;
- Use with competence appropriate techniques and field methods;
- Attain employment in geology, meteorology or related fields, or continue their graduate studies.

Assessment Measures

- Demonstrated competency and broad knowledge of the discipline through successful completion of a 6-week field camp (for geology graduates) or senior research thesis (for meteorology graduates);
- Student self-assessment [Download PDF] through an exit questionnaire to query their abilities and employability and their overall satisfaction with the program;
- Exit interview with graduating seniors;
- Alumni Survey of relevance of degree program to success in employment or graduate school;
- Compilation of data concerning graduation rates, employment rates in discipline-specific fields, weather-forecasting contest rankings *, and admission rates to graduate schools. **for meteorology majors.*

Graduate Students

Graduates of the M.S. and Ph.D. programs in the Department of Geological and Atmospheric Science will have the skills and knowledge to:

- Understand central issues and current research important to their field;
- Be familiar with the breadth and depth of their field;
- Communicate their knowledge of the field to both lay and expert audiences;
- Be aware of social and ethical issues that pertain to their field;

- Design and present a meaningful research project, and PhD students in particular will be able to conduct a piece of significant research. Postdoctoral trainees should conduct research at the “cutting edge” of their discipline;
- Work in groups;
- Learn independently;
- Publish in refereed journals;
- Present public lectures;
- Write successful grant proposals;
- Teach;
- Problem-solve;
- Make contributions to a larger community.

Assessment Measures

- Demonstrated competency and depth of knowledge through successful completion of M.S. thesis or Ph.D. dissertation, and defense of work;
- Exit interview with graduates;
- Alumni survey of relevance of graduate program to success in employment;
- Preliminary examination required for all Ph.D. candidates;
- Compilation of data concerning employment rates in discipline-specific fields;
- Implementation Plan.

The Program Outcomes and Assessment Committee of the Department of Geological and Atmospheric Sciences is composed of the following faculty members:

- Cinzia Cervato (chair)
- David Flory
- William Gallus
- William Gutowski
- Alan Wanamaker

The committee is responsible of the development of assessment instruments and data evaluation. The committee works with the Curriculum Committee and the rest of the faculty to implement curriculum changes.