The department’s curriculum is designed to enhance student’s competency in the following areas:

- Knowledge - Knowledge of fundamental and emerging concepts in geology;
- Retention and Integration – Ability to retain and integrate concepts from various classes;
- Critical Thinking - Ability to evaluate the quality of various data sources and to use this data when comparing competing theories or ideas;
- Data Collection Skills – Ability to collect defensible data relevant to the geosciences;
- Quantitative Skills – Ability to analyze and interpret a variety of data sets;
- Communication Skills – Ability to make and effectively present professional level oral and written presentations;
- Technical Skills – Experience with a range of analytical equipment;
- Computing Proficiency – Experience and use of computer and relevant software;
- Literature Familiarity and Use – Ability to find, critical evaluate, and properly cite papers, books, maps, reports, web-sites, and other sources of information;
- Independent and Collaborative Work and Thought – Ability to work alone or in groups on a variety of projects;
- Awareness of Ethics in Science – Understanding and practice of ethics as it relates to scientific endeavors and professions; and
- Importance of Geology – A thorough understanding of the importance of the profession of geology to human health and well-being.