**Science Exploration**

To think like a scientist, students must know how science knowledge is created and interpreted. In a Science Exploration course, content should serve as a vehicle to illustrate how experiment, observation and critical evaluation drive scientific understanding and progress. Science literacy and quantitative reasoning skills will be developed as tools to interpret and apply to natural processes. The Science Exploration course should give the student an appreciation of the applications and limitations of a science that investigates natural processes.

**Learning Outcomes**

Students' knowledge and skills will be developed in relation to the following course outcomes.

Students will

1. articulate the boundaries of science and how science differs from other disciplines both in content and methodology including how scientists create knowledge of natural processes through scientific methods;
2. identify ethical issues involved in the practice and application of science;
3. discuss the relevance of science in their lives and how it may affect them in their public and private roles;
4. understand and be able to use the vocabulary and concepts of the science, building science literacy regarding natural processes in the world;
5. use quantitative reasoning skills in the solution of science problems;
6. discuss the strengths and the limitations of the sciences, and recognize that scientists differ in their interpretations of data;
7. demonstrate skills of effective communication and analysis;

**Course Characteristics:**

Students will be introduced to science literature and some of the means of accessing it. A science exploration course will include the equivalent of three credits of lecture and one credit of laboratory. The lab will provide hands-on activities that complement the lecture part of the course. Prerequisites: Successful completion of EYE course (or transfer equivalent or waiver), College Writing, and Quantitative Reasoning.

Enrollment in the lecture sections is normally limited to 40. Enrollment in lab sections is normally limited to 20 (due to lab sizes).  

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1 An enrollment limit of 40 presents unparalleled staffing problems for USM science departments. To meet the enrollment cap suggested for the SE courses will require about 35% more sections of SE than we currently offer of K courses. This could only be accomplished with a significant increase in natural science faculty lines.