

**Minimal Course Content Criteria for Meeting Physical and Life Sciences Distribution Gen Ed Requirement
(Approved 11-14-14)**

Physical and life sciences are the intellectual traditions that seek to elucidate the rules that govern the natural world through empirical evidence and testing of ideas. Introductory science courses typically cover a significant body survey of current scientific knowledge, or the fundamental principles of a particular field science. Courses that satisfy the UNLV Physical and Life Sciences distribution credits, however, must cover both of these aspects of science. Specifically, a course must satisfy the following **five** criteria:

1. Must be introductory or survey courses accessible to students outside the major with few or no prerequisites.
2. Must include course material on scientific epistemology (i.e., the philosophy of science).
3. Must identify the fundamental assumptions, goals and methods of the physical and/or life sciences.
 - a. Methods should include the identification of science as a complex, collaborative, and iterative process that must include the following elements:
 - i. Theory generation, hypothesis testing, observation, replicability, falsification, peer-review, communication, and application.

Physical and Life science distribution courses must also contribute to the UNLV General Education University Undergraduate Learning Outcomes (UULO). Specifically, Physical and Life Science distribution courses must:

4. Contribute to the ***Intellectual Breadth and Life-Long Learning*** UULO by:
 - b. Promoting the understanding and integration of basic principles of the natural sciences with the social sciences, humanities, fine arts, and health sciences, and help develop skills and a desire for lifelong learning.
 - c. Demonstrating how the research methods and theoretical models of the physical and life sciences are applied to define, solve, and evaluate human problems.
5. Contribute to the ***Inquiry and Critical Thinking*** UULO by (minimum of three of the following):
 - a. Identifying problems, articulate questions or hypotheses, and determine the need for information.
 - b. Using quantitative and qualitative methods, including the ability to recognize assumptions, draw inferences, make deductions, and interpret information to analyze problems in context and draw conclusions.
 - c. Recognizing complexity of problems and identify different perspectives from which problems and questions can be viewed.
 - d. Evaluating and report on conclusions, including discussing the basis for and strength of findings, and identify areas where further inquiry is needed.
 - e. Identifying, analyzing, and evaluating reasoning and constructing and defending reasonable arguments and explanations.