

Physical and Life Sciences

The significance of understanding the natural and physical world cannot be overestimated. College students must be able to understand the complexity and diversity of scientific knowledge and be able to connect those ideas both within and outside scientific disciplines. Therefore, courses meeting General Education Physical and Life Sciences requirements must, at a minimum, achieve the following goals:

- Demonstrate knowledge of basic fundamental laws, concepts, and theories in the physical and life sciences and be able to apply them to everyday life
- Emphasize the use of scientific models to elucidate the logical implications of theory and then express those consequences in ways that permit testing of theoretical ideas
- Demonstrate knowledge of the process of science by being able to utilize data in the form of tables, graphs, and charts through interpretation, and then communicating those findings in written form
- Demonstrate a knowledge of important historical discoveries and theories that shaped the sciences and be able to indicate how they advanced our knowledge and ability to interpret, view, and judge the world today

To meet these goals, courses in the physical and life sciences will require students to complete, at a minimum, the following:

- Homework assignments that require reading and writing in order to demonstrate understanding of relevant knowledge
- Participate in laboratory experiences (3 to 5), significant in-class demonstrations (used at least during one-quarter of the classes), and/or field trips(one or more)
- Take examinations that measure retention of course materials and require at least some use of tables, graphs, and charts, as well as communication of ideas through written responses
- Participate in a significant number of lectures, classroom discussions and other in-class activities in order to improve problem-solving and scientific reasoning skills