

General Physics 1410 Course Objectives

Course objectives and goals	Linked to which departmental program goal(s)	Linked to which institutional goal(s)?	Types of evidence used to demonstrate student achievement of objectives & goals
Students will demonstrate the ability to employ the methods of science for inquiry.	- to enhance non-physics science majors' understanding of science through the application of the scientific process into disciplines that overlap their interests, but view the material from a different perspective, thereby providing a richer understanding of the interconnectedness of their discipline to other fields.	1,2,3,4,8	Students will show the ability to formulate rational approaches to problem-solving both in conceptual situations and hands-on experiments. Students will be successful working on discovery-based classroom assignments and discovery-based lab exercises.
Students will demonstrate an acceptable level of skill in using the tools of science.	- to enhance non-physics science majors' understanding of science through the application of the scientific process into disciplines that overlap their interests, but view the material from a different perspective, thereby providing a richer understanding of the interconnectedness of their discipline to other fields.	2,3,8	Students will show the proper use of lab equipment, through supervised lab experience. Students will be able to explain the precision involved in any measurement and the use of uncertainty in calculations of their results. Students will be able to use the mathematical and logical tools of science as it can be seen through their success on in-class homework and assignments.
Students will demonstrate an acceptable level of understanding of the major principles of physics.	- to enhance non-physics science majors' understanding of science through the application of the scientific process into disciplines that overlap their interests, but view the material from a different perspective, thereby providing a richer understanding of the interconnectedness of their discipline to other fields.	1,2,3,8	Students will show this ability through their success on the quiz and exam questions that pertain to the major principles of physics.
Students will demonstrate the ability to formally communicate scientific findings and interpretations, both in writing and speaking, using formats appropriate to the audience and the discipline.	- to enhance non-physics science majors' understanding of science through the application of the scientific process into disciplines that overlap their interests, but view the material from a different perspective, thereby providing a richer understanding of the interconnectedness of their discipline to other fields.	2,3,4,8	Students will demonstrate their ability to present their work formally in writing through the writing and revision of the laboratory reports. Students will demonstrate their ability for formal speaking during oral presentations in the laboratory and active participation during in-class discussions.
Students will demonstrate the ability to critically assess the validity of scientific findings and conclusions.	- to enhance non-physics science majors' understanding of science through the application of the scientific process into disciplines that overlap their interests, but view the material from a different perspective, thereby providing a richer understanding of the interconnectedness of their discipline to other fields.	1,2,3,4,8	Students will demonstrate their ability to critically assess the validity of scientific findings and conclusions through the process of the peer review of the lab reports and participation in peer group problem solving.