

Calvin College Department of Physics and Astronomy
Assessment plan Goals for Graduates
2005 May 12

The Department of Physics and Astronomy will assess its program for physics majors (including double-majors) using the following specific goals and using the methods outlined on subsequent pages.

- Goal 1:** Our students should have the knowledge and skills necessary to conduct an advanced laboratory investigation with minimal supervision (an investigation done in a 300-level laboratory course, or one of at least equivalent difficulty done outside of class), and they should be able to write a suitable report on their laboratory results.
- Goal 2:** Our students should have the knowledge and skills necessary to solve physics problems at a difficulty level appropriate to any 300-level theory course which they have taken; and they should be able not only to solve a problem, but also to present a well-written solution which explains the physical reasoning.
- Goal 3:** Our students should have the knowledge and skills necessary to write a computer program to solve a computational problem at a difficulty level appropriate for a 300-level theory class.
- Goal 4:** Our students should be able to make good oral presentations on topics which they have investigated (*e.g.* summer research, an honors project).
- Goal 5:** Our students should be able to articulate thoughtful Christian perspectives on issues of intellectual and societal importance that are relevant to the scientific profession.
- Goal 6:** Our students should participate in the work, intellectual life, and social life of the department beyond their classwork. For example, most students should do all of the following: assist teaching, do research work with a professor, work on team projects, and participate in some departmental social events.
- Goal 7:** We will help our students to evaluate their gifts and skills, advise them as they choose their vocational paths, and provide information and resources for students pursuing further education or employment in physics or astronomy.
- Goal 8:** Those students who complete proscribed programs for graduate school preparation or for secondary education should have the physics knowledge and skills to enable them to pursue the next step in that vocational path.