Expected Outcomes: Acquire appropriate knowledge and skills

A student with an undergraduate degree in physics should be prepared for a variety of careers, not just graduate school in physics. The items checked below serve as an excellent list of what we want our graduates to have acquired.

Related typical general education outcomes:

2  Analytical and Critical Reading
3  Ability to Critique Arguments
4  Ability to Construct Arguments
5  Ability to Use Mathematical Methods
6  Ability to Solve Open-Ended Problems
11 Scientific Literacy

Assessment methods

Method: Respond to relevant questions during course work

Faculty teaching courses for undergraduate physics majors select appropriate questions, assignments, and exercises as indicative of specific learning objectives for that class. The individual faculty do so in consultation with those who have previously taught the course, by inspecting newly developed curricular materials from other universities, and sometimes by interviewing colleagues at other institutions who are teaching similar courses.

Findings:

Each appropriate question, assignment, and exercise is informally evaluated by the faculty member with regard to its overall effectiveness and particular efficacy for helping students to acquire course-specific knowledge and skills. This informal evaluation is done immediately after the item completion. Formal (statistics-based) evaluation is usually not appropriate, as the number of students in any one course is insufficient to yield statistically valid inferences.

How did you use findings for improvement?

Faculty use results of their informal evaluations, often in consultation with other colleagues, to modify their succeeding lectures, class activities and assignments. After the end of a course, faculty will often share with other department members the accumulated impression of their class experience.

Additional comments:

None