Student Learning Outcomes/Objectives, with Any Associations and Related Measures, Targets, Findings, and Action Plans

SLO 1: Mastery of basic physics
Students will have mastery of basic physics appropriate for advanced doctoral study in physics/applied physics or for employment in technical positions in government or industry.

Related Measures

M 1: Survey of graduates
Survey of graduates
Source of Evidence: Alumni survey or tracking of alumni achievements
Target: 100% of MS graduates will have employment in a scientific or technical field or be accepted to graduate school

M 2: Thesis
Review of MS Thesis by thesis committee
Source of Evidence: Senior thesis or culminating major project
Target: MS thesis will have an acceptable level of scholarship and demonstrate a mastery of the subject matter as determined by the thesis committee

M 3: Oral examination
Oral examination
Source of Evidence: Academic direct measure of learning - other
Target: Passing grade on oral examination

SLO 2: Communicate scientific knowledge
Students will be able to communicate scientific knowledge in oral and written form.

Related Measures

M 4: Research
Research output produced by the student (presentations and/or publications)
Source of Evidence: Presentation, either individual or group
Target: 75% of all MS students will have submitted one first-author manuscript to a scientific journal prior to graduation and/or given a presentation at a national scientific meeting

SLO 3: Research
Student will be able to effectively conduct experimental and/or computational research including data acquisition, computer simulations and analysis

Related Measures

M 2: Thesis
Review of MS Thesis by thesis committee
Source of Evidence: Senior thesis or culminating major project
Target: 100% will score at “acceptable” or above on the rubric established by departmental and degree requirements.

M 5: Research Methods in Physics course
Quality of work in PHYS 7025 (Research Methods in Physics course)
Source of Evidence: Academic direct measure of learning - other
Target: Students will earn a “B” or better in this course.