

95-20

December 12, 1995

Option in Applied Physics (code 6-7669)

This program was recommended by the Academic Senate on October 26, 1995 and approved by the President on November 13, 1995.

The Option in Applied Physics provides a master's degree program that emphasizes concepts and techniques particularly appropriate for applied physics. It is intended for students having a background in physics, engineering, or a related field.

Prerequisites

1. A bachelor's degree with a major in physics, or
2. A bachelor's degree with a major in engineering with upper division physics substantially equivalent to PHYS 310, 340AB and 450, as determined by the Department Graduate Advisor, or
3. A bachelor's degree with upper division physics and mathematics courses essentially equivalent to PHYS 310, 340B, 450, and MATH 370A and 370B, as determined by the Department Graduate Advisor.

Students deficient in undergraduate preparation must take courses to remove these deficiencies as determined by the Department Graduate Advisor.

Requirements for the MS Degree

1. Advancement to Candidacy
 - a. Students must fulfill the University requirements for advancement to candidacy and must satisfy the Graduate Committee as to the adequacy of their preparation by passing the Physics Department screening examination. This will be done in the first semester in which they are registered for courses acceptable for credit toward the M.S., except in individual cases to be determined by the Graduate Committee.
 - b. A student must have a B average or better in six units of physics applicable toward the master's degree, of which at least three units are at the graduate level.
2. Recognizing that effective organization and verbal communication of physics are a necessary part of a successful graduate program, the Department of Physics and Astronomy normally requires that a graduate student serve at least one semester as a teaching assistant or a graduate assistant as part of the M.S. program. Exceptions may be granted by the graduate advisor.

Additional Requirements

Thirty units of upper division and graduate courses as described below.

1. PHYS 540A, 550A, 560A, 569, and 695.
2. Two of the following courses or combinations of courses: PHYS 502/503, 575/576, 580, and 586.
3. Completion of a written thesis, 6 units of Physics 698, and an oral presentation of the thesis research. The members of the candidate's thesis committee must approve the thesis before the student may schedule the oral presentation.

Note: Students must be advanced to candidacy before enrolling in Physics 698. As early as possible, a graduate student should choose a thesis advisor who will help in selecting the student's thesis committee consisting of at least three members (including the thesis advisor and at least one other member of the department).

4. Courses selected in consultation with the Department Graduate Advisor and/or thesis advisor to complete the remaining 2 to 4 units.