



MODEL PROGRAM CHANGE REQUEST

Department of Physics

(714) 278-3366/ Fax (714) 278-5810

TO: Keith O. Boyum
Academic Programs MH 133

DATE: October 20, 2003

Gladys Fleckles
Graduate Studies MH 103

FROM: Dr Heidi Fearn
Graduate Advisor & Chair of Graduate Committee Physics

Dr. Roger Nanes
Physics Department Chair

SUBJECT: Proposed Program Changes for the Physics M.S. Degree

Rationale for changes to Physics MS degree requirements:

The physics department is a small department with eight tenured/tenure-track faculty. Our M.S. program is growing rapidly and currently has 19 students actively enrolled. Students in the M.S. program can currently elect to take a comprehensive examination or to do a thesis to complete the requirements for the Degree. Given the demands on the faculty to supervise research and serve on thesis committees, the rapid growth of the Physics M.S. threatens to overwhelm the capacity of the Department to serve the needs of students in the graduate program. The purpose of the present proposal is twofold: 1) to make the program more selective by changing admission requirements and, 2) to add an alternate pathway, beside the formal thesis or the examination, for students who wish to do graduate research.

Pre-classification requirements: All study Plans A, B & C

We propose that the following changes be made to the pre-classification requirements for entrance into the physics graduate program:

- (1) Currently, admission to the Master's program in physics requires a grade-point average (GPA) of 2.5 in the last 60 semester units (or the last 90 quarter units) and a GPA of 2.5 for upper-division courses in the major. We propose that the GPA requirement be changed as follows: the overall requirement of 2.5 in the last 60 (or 90) units remains the same, but the GPA requirement for upper-division courses in the major is changed to 2.75. In addition, for applicants with undergraduate degrees in engineering, mathematics or other physical sciences, a GPA of 3.0 in upper-division major courses is required.
- (2) In addition to the GPA requirements, the following new requirements are to be added:
 - (i) All applicants must take the graduate record exam (GRE) (physics portion only) taken within the last year,

- (ii) a one page, 500 word maximum, typed statement of purpose, explaining the student's interest in taking a higher degree in physics and,
- (iii) three letters of recommendation. (New requirement for domestic students-foreign students usually submit letters of recommendation for tuition waivers.)

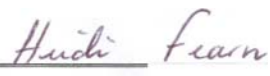



PHYS 597 Project: Study Plan C

We propose that Physics 597 Project be initiated as an alternate exit option (Study Plan C) for the Physics Masters degree. Plan A is by comprehensive exam, Plan B is by thesis, and the new Plan C would be by Project.

The Required Core courses (Physics 510, 520, 530A, 555A) would be the same as for the Thesis option. Rather than writing a thesis, the student could write a short project under the supervision of one faculty member from the Physics department. The students can enroll for a maximum of 3 units for the project. The student must prepare a typed paper describing the project, which meets one of the following criteria:

- (i) If the project paper is accepted for publication in a peer reviewed journal then the student has completed the requirements for the project. If the project paper is not submitted for publication then the requirements of section (ii) below shall apply. If the project paper has been submitted for publication but has been delayed in the review process, the candidate may elect to have the requirements of section (ii) apply.
- (ii) If the project is not submitted for publication in a peer reviewed journal, then the student would be required to give a department colloquium on his/her work and a second faculty member from the Physics Department would evaluate the project to ensure that the quality of work in the project is sufficient to warrant partial fulfillment of the MS degree.

Signatures:

- Graduate Committee Chair/Graduate Advisor: Heidi Fearn 
- Chair of Physics: Roger Nanes 
- Dean of NSM: Kolf Jayaweera 
- Associate Vice President, Academic Programs 



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TO: Gladys Fleckles
Graduate Studies MH 103

FROM: Dr. Roger Nanes
Physics Department Chair

SUBJECT: Physics 597 Project

To coincide with the introduction of a new option (Study Plan C) as part of the M.S. Degree in Physics. I would like to request the establishment of a new course: Physics 597. Students can enroll for a maximum of 3 units and the catalog description would read:

Physics 597 Project (1-3)

Prerequisites: Planning, preparation and completion of a project in partial fulfillment of the requirements for the master's degree. Credit to be obtained only upon formal completion of a project paper approved by the department graduate committee.