Master Syllabus Department of Physics and Astronomy



PHYC 683 Seminar In Physics

Course Description

Critical examination and discussion of recent experimental and theoretical developments in physics. Participation in and contribution of a presentation at departmental physics colloquia are expected. (1 credit hour)

A total of (1-4) hours of credit may be earned.

Course Objective

This course may be used for a variety of purposes to serve the special needs of individual graduate students or groups of graduate students. Examples of such purposes are:

- 1. A course for graduate assistants in the instruction of undergraduate physics laboratories.
- 2. A course in the methodology of research in the physics literature.
- 3. A course in the history and philosophy of physics.
- 4. A course in the social and political implications of applied physics.
- 5. A course in the theory and experimental applications of a restricted area of physics research not covered in more general courses.

The number of hours of credit assigned to the course will be commensurate with the amount or difficulty of the work assigned and will be determined by mutual-understanding of the faculty advisor and student(s) prior to commencement of the work.

Course Rationale

The seminar course is required to provide graduate students with experience in giving seminar, talks and writing reports. The course serves the special needs of graduate students. Students will prepare and make professional research presentations. Students will assess and compose written reports of departmental seminars, professional meetings, and related professional development.

Course Content, Format, and Bibliography

Content

Course content for each student will be selected from literature on current physics, engineering, astronomy, education, and other science research. Students will be strongly encouraged for their involvement in research.

Format

Students will present their work in the departmental seminars as well as in the professional meetings. Students will be evaluated on the basis of their performance on presentations in the departmental seminars/professional meetings and their assessments/reflections of the semester department seminar series.

This course is taught as a dual undergraduate/graduate course. Students will be required to complete activities appropriate for the level of the course in which they are enrolled. Student performance on homework, exams and/or labs will be evaluated using different standards for undergraduate and graduate students.

Bibliography

Physics journals, papers, books and references related to the topic of research interests.