

## PHYS 4610 Senior Project I

### Course Description

A project in experimental or theoretical physics, either in research or in reviewing the literature. The course may be taken as a one-semester project course or followed by PHYS 4620 as a sequence. Students should seek prior permission of project advisor before registration.

#### Grade Descriptors

A : Demonstrate thorough mastery of the subject (of the project or seminar) required for attaining all the course learning outcomes. Demonstrate evidence of original thoughts and the ability of critical use of data or results to draw insightful conclusions, in a manner that would surpass the normal expectation at this level and standards that may be required at higher levels of study or research. Has the ability to express the knowledge and synthesis of ideas in a clear and cogent manner.

A- : Demonstrate substantial command of the subject (of the project or seminar) required for attaining almost all the course learning outcomes. Demonstrate the ability of critical use of data or results to draw meaningful conclusions, in a manner that is logical and comprehensive. Has the ability to express the knowledge or application with clarity and accuracy.

B : Demonstrate general and sufficient command of the subject (of the project or seminar) required for attaining most of the course learning outcomes. Demonstrate the ability of the use of data or results to draw mostly correct conclusions, in a manner that is logical and persuasive. Has the ability to express the knowledge or application in a satisfactory and unambiguous way.

C : Demonstrate general command of the subject (of the project or seminar) required for attaining some of the course learning outcomes. Demonstrate the ability of the use of data or results to draw conclusions, but with occasional errors. Has the ability to express the separate pieces of knowledge in an unambiguous way.

D : Demonstrate partial command the subject (of the project or seminar) required for attaining some of the course learning outcomes. Has limited ability to use data or results to draw conclusions. Has the ability to state the knowledge in simple terms.

F : Demonstrate little or no evidence of command of subject (of the project or seminar) required for attaining the course learning outcomes, OR failure to meet specified assessment requirements.

#### Prerequisite

Permission of project advisor.

## Learning Outcomes

By the end of the course, students will be able to:

1.	identify key issues and apply basic concepts, principles and methods in studying a problem
2.	present scientific work in a clear, concise, and logical manner
3.	demonstrate the ability in self-learning
4.	manage project work: self-monitor, evaluate the progress critically, and accomplish the project goals on schedule