

SPRING 2019 – Beyond Intro Physics...

PHY 300 Physics Seminar

Prerequisite: Junior or senior status; and either PHY 142 or PHY 162, or instructor approval.

1 Credit hour, W 4:30-5:30, SEB 110, Instructor Chamaree de Silva

PHY 320 Astrophysics

Application of physical principles to humanity's observations of the Universe, focusing on how physics can explain and/or inform astronomical observations, as well as how those same observations can change our understanding of the natural world.

Topics include Greek and Renaissance astronomy; the properties and detection of light, cosmic rays, neutrinos, and gravitational waves; stellar lifecycles; and cosmology.

Prerequisites: MAT 192 and PHY 162

3 Credit hours, MWF 11-11:50, SEB 140, Instructor Frank McNally

PHY 330 Thermal Physics

Introduction to statistical mechanics covering classical and quantum statistics, and connections with thermodynamics. Quantum statistics will include investigations of thermal properties of solids and low temperature phenomena.

Pre-requisites: MAT 192 and PHY 162

3 Credit hours, MWF 2-2:50, SEB 140, Instructor John Lee

PHY 450 Quantum Mechanics

Introduction to the concepts and techniques of quantum mechanics: Mathematical formalisms, applications to discrete and continuous physical systems, and philosophical implications.

Pre-requisites: MAT 293, MAT 330 and PHY 305

3 Credit hours, MWF 9-9:50, SEB 140 Instructor Jose Balduz