

ADVANCED SCHOLARS

UNIVERSITY OF NEBRASKA-LINCOLN

Faculty

KEVIN LEE, PH.D.*Research Assistant Professor,
Physics & Astronomy*

Dr. Lee has taught descriptive astronomy at UNL since 1997 and makes extensive use of instructional technology in his courses. His research interests focus on variable stars and the use of computer visualization tools in education.

ADAM DAVIS, PH.D.*Lecturer, Physics & Astronomy*

Dr. Davis has been actively developing online materials for astronomy through the Nebraska Astronomy Applet Project. He has taught both introductory physics and astronomy courses which rely heavily on online technologies. His research interests include cosmology, general relativity, and physics and astronomy education.

ELEMENTS OF PHYSICS (PHYS 151)

3 Credits (Available Fall and Spring Semesters)

Course Description

Elements of Physics is a one semester algebra-based introduction to physics. It emphasizes practical examples of physics at work which are seen in every day life. Much of the course is focused on a branch of physics known as mechanics which describes motion, projectiles, forces that cause motion, collisions, and using energy. The course also covers thermal physics which involves heating and insulation, and will include enough about electricity to understand the wiring of a typical house.

COURSE PREREQUISITE: TWO YEARS HIGH SCHOOL ALGEBRA

Course Objectives

1. Students will develop skills to qualitatively and quantitatively analyze the behavior of physical systems, to solve basic physics problems.

Course Components

- Live online discussions using Breeze software
- Weekly lab simulations
- Weekly quizzes
- Four exams

Technology Requirements

Access to high speed Internet required.

Must meet EDU requirements.

A Java runtime environment will be needed for the simulations.