

University of Nebraska

ASTRONOMY EDUCATION WORKSHOP

<http://astro.unl.edu>



(Saturday, September 18, 2004 — Avery 19, UNL City Campus)

This event is free to high school and college astronomy/physics instructors and undergraduate students interested in careers in science education. Please register in advance by phone at 402-472-3686 or by email at klee6@unl.edu. This workshop has three goals: 1) to acquaint educators with new innovative usages of instructional technology in astronomy education, 2) to introduce new developments in the UNL Department of Physics and Astronomy, and 3) to bring together members of the astronomy and physics teaching community to share ideas and identify potential collaborators.

Workshop Agenda

9:00 am Welcome & Announcements

9:10 pm Presentation: "Science from Hubble, Compton, Chandra, & Spitzer"
Steve Shawl, University of Kansas

Abstract: NASA's Great Observatories included not only the Hubble Space Telescope (HST) but also the Compton Gamma-Ray Observatory (CGRO), the Chandra X-ray Telescope, and the Spitzer Space Telescope. Together these telescopes covered the electromagnetic spectrum from gamma-ray (CGRO) to x-ray (Chandra) through the UV, visible and near IR (HST), out to the infrared (Spitzer). This talk will be a travelog of some exciting results from each of the Great Observatories with great images and some discussion of the science.

10:15 pm Workshop: Lecture-Tutorials in Astronomy
Ed Prather (University of Arizona) & Steve Shawl (University of Kansas)

Abstract: *Lecture-Tutorials for Introductory Astronomy* is a collection of classroom-tested activities suitable for any astronomy class. The Lecture-Tutorials are short, structured activities designed for students to complete while working in pairs. Each activity targets one or more specific learning objectives based on research on student difficulties in astronomy. Most activities can be completed in 10 to 15 minutes.

11:45 pm Lunch (Selleck Private Dining Hall)

1:00 pm Workshop: Ranking Tasks in Astronomy
Ed Prather (University of Arizona)

1:30 pm Presentation: Interactive Assessment
Kevin Lee (University of Nebraska) & Chris Siedell (University of Nebraska)

2:00 pm Computer Lab: Using ClassAction Materials
Kevin Lee (University of Nebraska) & Ed Prather (University of Arizona)

2:55 pm Wrap-up and door prize raffle (must be present to win!)

This workshop is sponsored by the UNL Center for Science, Mathematics, and Computer Education and the UNL Department of Physics and Astronomy. Educational materials have been provided by Prentice Hall.

Lunch is provided and reimbursement will be made for travel costs up to \$50. All registered attendees will receive copies of the Lecture Tutorials in Astronomy, Ranking Tasks in Physics, the ClassAction CD, and a CD of all of the images from Dr. Shawl's presentation.