

University of Nebraska

ASTRONOMY EDUCATION WORKSHOP

<http://astro.unl.edu>



(Friday, September 19, 2003 — Ferguson 114, UNL City Campus)

This event is free to high school and college astronomy and physics instructors who register in advance. You may register by phone at 402-472-3686 or by email at klee6@unl.edu. Our workshops have 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

2:00 pm Welcome & Announcements

2:10 pm Dr. Timothy Slater, University of Arizona.

“Using The Excitement of Astrobiology to Engage Students”

Abstract: Astrobiology can be defined as the study of the origin, evolution, distribution, and destiny of life in the universe. It defines itself as an interdisciplinary science existing at the intersection of astronomy, biology, chemistry, geology, and physics. Discoveries from this field have dramatically changed our view of the potential for life in the universe. As a result of its truly interdisciplinary nature, teachers are actively considering the inclusion of astrobiology in their courses. Consequently, there exists a rapidly growing need to create classroom-ready astrobiology instructional materials. The development of meaningful activities requires a robust research base that identifies specific difficulties and pre-instructional beliefs students have concerning astrobiology related concepts. For our investigation of astrobiology, we focused our research around two main goals. First is the documentation of conceptual and reasoning difficulties students experience when learning about astrobiology. The second is to design innovative instructional materials that are sensitive to these identified student difficulties and that are aligned with the content and instructional goals of the National Science Education Standards.

3:15 pm Break – Snacks & Beverages

3:30 pm “Type II Cepheids” - Ed Schmidt (UNL)

4:00 pm A Short Demonstration of ClassAction
Kevin Lee (UNL)

4:15 pm Hands-On Computer Laboratory (in Ferguson 21)
“Nebraska Astronomy Applet Project: Working with the Seasons Applet”
Dave Kriegler (UNO) and Kevin Lee (UNL)

5:45 pm Dinner at Spaghetti Works (optional)

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 Publishing and Brooks/Cole Publishing.