

Year-end Report for the Paul Stock Undergraduate Research Work-Study Program

Throughout the fall and spring semesters of the 2003-2004 academic year, Micah Weeks and Lorie Pokorny helped me pursue the goals outlined in the Paul Stock Research Proposal (submitted in the spring of 2003). Using a microscope equipped with a digital camera and a digital video camera, lab procedures for General Microbiology were electronically documented. These videos and photographs were compiled with the text from the laboratory manual in order to create virtual labs. These virtual labs are currently being made web-accessible and during the fall semester of 2004, they will be evaluated to determine their effectiveness. The support provided by the Paul Stock Undergraduate Research Work-Study Program Award was absolutely essential in enabling us to attain our research goals.

Both work-study students were presented with many new learning experiences. They developed the skills to work with an inverted microscope, a digital camera and a digital video camera. They spent hours preparing samples, taking photographs and capturing video clips. In order to present their electronic data in a usable format, the students learned how to create a web page using Macromedia Dreamweaver. They designed additional graphics and instructional cartoons using the Macromedia Fireworks drawing program and learned how to use iMovie to perform digital video editing. In the process of putting all the electronic class material together, they gained knowledge in instructional design and curriculum development.

In addition to the fantastic learning experiences provided to these two students, the research project itself has also been furthered greatly. Virtual labs for the Microscopy and Staining section of General Microbiology are nearly complete and during the fall semester of 2004, students will test and critique these virtual labs. It is hoped that these labs, in allowing students to preview and review these procedures will enhance their learning experience.

Rachel Watson
Microbiology Instructor / Lab Coordinator
University of Wyoming
rwatson@uwyo.edu
307.760.2942