Virtual Laboratories in a Clinical Laboratory Sciences Program

Donna J Spannaus-Martin, Presenter
Janice Conway-Klaassen, Program Director
Joanna George, Mauri Bruggeman, Jason Hill, Cheryl Swinehart, and Stephen Wiesner

Clinical Laboratory Sciences
- Clinical Chemistry
- Microbiology
- Urinalysis
- Transfusion Medicine
- Hematology
- Hemostasis

University of Minnesota's Clinical Laboratory Sciences' Student Laboratory (Minneapolis)

University of Minnesota's Clinical Laboratory Sciences’ Student Laboratory (Rochester)

University of Minnesota Medical Center’s Acute Care Laboratory

Student Laboratory Method
Clinical Laboratory Method
Teaching CLS Students
1. New instrumentation has made testing a "black box"
2. Difficult to repair very old instruments previously used in student laboratories
3. Students still need to understand the principles involved

Hemostasis – Blood Coagulation

Hemostasis Online Modules
- Background information
- Links to pdfs of laboratory worksheets
- Interactive laboratory quality control
- Videos for controls and patient samples

Hematology
1. Hematology I – traditional wet laboratory exercises, students learn basic skills
2. Advanced Hematology – Laboratory exercises replaced by online slides and online, synchronous session with faculty
Transfusion Medicine

- Antibody Identification Module
- Students get immediate feedback for each step of the antibody identification

Summary

- Laboratory exercises designed to teach students the skills and information they need to know
- Once skills have been developed, additional exercises are delivered in an online format

Donna Spannaus-Martin, PhD, MLS
spann003@umn.edu
Clinical Laboratory Sciences
420 Delaware St. SE, MMC 711
Minneapolis, Minnesota 55455
612-625-4428