Practice of Medicine

Doctor, Patient and Society
- Patient interviewing
- Physical exam/history taking techniques
- Ethics
- Doctor/patient relationships
- Doctor/patient communication

Problem-Based Learning
- Self-directed learning in small group format
- Integration of basic science and clinical knowledge
- Use of clinical information resources
- Contextual learning and analysis of six cases
- Closely tied to medical informatics curriculum
- Differential diagnosis and decision making

Clinical Apprenticeship Program
- Observe practice and delivery of care
- Real life community/clinic experience

Librarian’s Role
- Serve as student resource for health, informatics, and technology information
- Teach medical informatics skills
- Evaluate student use of resources
- Attend all PBL sessions; each librarian has two PBL groups
- Informatics integrated into PBL curriculum objectives
- Librarian-created web-based medical informatics textbook

- Example: Hip Fracture Case (69 y.o. female with osteoporosis)
  - Students critique the website and its information in PBL and each returns the following week with a better website to share.
  - Demonstrate MEDLINE searching competency through graded exercise

- Patient brings information from a website that the physician determines is incorrect information.
- Students critique the website and its information in PBL and each returns the following week with a better website to share.
- Using MEDLINE, find practice guidelines on treating diabetes in general and find a recent review article on diet therapy and insulin - dependent diabetes to share with the attending physician
### Setting
- Three computer classrooms in Himmelfarb Library (48 computers)
- Class tested in four groups of 40 using three proctors, one secretary, and one librarian to assist other patrons in adjacent lab
- Students requiring additional time were scheduled in either the first or third sessions
- Web-based exam (Prometheus course management software)
- Special training accounts established in Ovid MEDLINE and MD Consult
- Students saved work to disk
- Files section of Prometheus disabled prior to exam
- Time for exam limited to two hours; strictly enforced
- Questions were both multiple choice and essay

### Exam
- **Multiple choice**
  - Psychosocial questions
  - Medical informatics questions on copyright and email communication between physician and patient

- **Essay**
  - Case-based questions
  - Allergic rhinitis and consumer advertisements
  - Ephedra and weight loss

### Resources available to students
- Ovid MEDLINE
- MD Consult
- World Wide Web

### Evaluation
- Tutors graded clinical content of essay
- Librarians evaluated use of information resources
- Multiple choice questions graded by Scantron®
Exam Evaluation

Library Lessons Learned
- Enormous time and personnel commitment
- Careful coordination among library, course director, and Education Program office
- Fewer computers available for other patrons at end of semester
- Back-up plans essential
  - Network failure - paper exam
  - Software problems - save frequently to disk
  - Hardware problems - reserve more computers than expected students
- Printing exam at end of session worked better than disk submission for Education Program office

Student Evaluation
- Overwhelmingly positive on formal evaluation completed in Prometheus
- Concerns expressed about stability of Prometheus, computer networks and access to electronic resources
- Some apprehension about new testing format

The Future
- Integrate PBL exam with DPS exam
  - Student conducts exam on simulated patient and takes history (evaluation by clinician)
  - Student then accesses computer for treatment information in real time (resource evaluation by librarians)
  - Student returns to simulated patient for follow-up and explanation of conditions (evaluation by clinician)