DESCRIPTION:
The UCLA Emergency Medicine faculty is developing outcome and cost-based standards for ambulatory care derived from literature review of specific outcome measures, meta-analysis, and expert panel review. The standards are to be used in a micro-computer-based expert charting system.

COURSE OBJECTIVES (in order of importance):
1. An in-depth clinical experience in emergency medicine.
2. An introduction to health services research in emergency medicine.
3. An understanding of the use of objective outcome criteria for the determination of standards of clinical management in medicine.
4. The fundamental skills necessary for the development of clinical algorithms.
5. Familiarity with computer-based meta-analysis of multiple studies regarding a specific clinical decision.
6. Use of rule-based microcomputer programming techniques, which allow for the use of clinical algorithms during charting.

STUDENT EXPERIENCES

COMMON PROBLEMS/DISEASES
1. Febrile children
2. Recurrent seizures
3. Headaches
4. Back pain
5. Localized injuries

CLOSE CONTACT WITH:
X FULL-TIME FACULTY
X CLINICAL FACULTY
X FELLOWS
X RESIDENTS
INTERNS
OTHER:

APPROXIMATE # OF PATIENTS EVALUATED EACH WEEK BY STUDENT: 6
TOTAL # OF PATIENTS EVALUATED EACH WEEK BY ENTIRE SERVICE: 850

TYPICAL WEEKLY SCHEDULE

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<tr>
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<tr>
<td>AM</td>
<td>Morning Rounds</td>
<td>M &amp; M Conference</td>
<td>Library Research Programming</td>
<td>UCLA EMC</td>
<td>Trauma Conference</td>
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<td>Meet w/ Course Chair</td>
<td>Library Research Programming</td>
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<td>UCALC EMC</td>
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ON-CALL SCHEDULE & WEEKEND ACTIVITIES: N/A

ADDITIONAL COMMENTS AND OTHER SPECIAL REQUIREMENTS: We seek fourth year medical students with an interest in emergency medicine, health services research, or the applications of computers in medicine to help us with this extensive ongoing project. Experience with computers is not necessary.
MI185.01  BIOMEDICAL INFORMATICS

Location: CS  2010-2011  Revised: 12/9/09

COURSE CHAIR:  Robert A. Jenders, M.D., M.S.  
PHONE #:  (310) 423-4683 
E-MAIL: Jenders@ucla.edu

SUPPORTING FACULTY:  
Peggy Miles, M.D., Charles Wang, M.D., Ph.D.

STUDENT COORDINATOR:  Judy Jacobs  
PHONE #:  (310) 423-4658 
FAX: (310) 423-5200 
E-MAIL: judith.jacobs@cshs.org

REPORT TO:  Judy Jacobs, Becker Bldg., Becker 116, North Tower, 9:00 a.m.

PREREQUISITES:  3rd year Pediatric and Medicine Clerkships 
(Also see additional comments)

AVAILABLE FOR EXTERNS:  Yes

STUDENTS / PERIOD:  max 1  min 1 
DURATION:  3 weeks

2010-2011 ROTATIONS BEGIN WEEKS:  
3, 6, 9, 12, 15, 18, 21, 27, 30, 33, 36, 39, 42, 45, 48

DESCRIPTION:  Students will spend 25% time in didactic education, focusing on directed readings from a textbook (Shortliffe EH, Cimino JJ eds. Biomedical Informatics: Computer Applications in Health Care and Biomedicine, 3rd ed. Springer, 2006) and assigned papers. The student will review this material with a faculty member to learn the breadth of biomedical informatics. The remainder of the elective time will be spent in the clinical practice of informatics, engaging in project-based work in which the student can apply the principles learned didactically. This will involve independent work and meetings with a faculty advisor and technical staff members to review progress and discuss challenges. No background in computer science or programming is assumed, and projects are customized for the student's interests and background. The student will spend one afternoon a week in the outpatient clinic with a faculty member in order to learn how biomedical informatics is applied in medical practice.

STUDENT EXPERIENCES

COMMON PROBLEMS/DISEASES
1. N/A

CLOSE CONTACT WITH:
X FULL-TIME FACULTY
X CLINICAL FACULTY
X FELLOWS
X RESIDENTS
X INTERNS
OTHER:

APPROXIMATE # OF PATIENTS EVALUATED EACH WEEK BY STUDENT:  N/A

TOTAL # OF PATIENTS EVALUATED EACH WEEK BY ENTIRE SERVICE:  N/A

TYPICAL WEEKLY SCHEDULE

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<tr>
<td>AM</td>
<td>9:00 – 10:30 Independent Reading</td>
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<td>9:00 – 10:30 Project Team Meeting</td>
<td>8:30 – 9:30 Grand Rounds</td>
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<td>10:30 – 12:00 Project Work</td>
<td>10:30 – 12:00 Project Work</td>
<td>10:30 – 12:00 Project Work</td>
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<td>Project Work</td>
<td>1:00 – 2:30 Didactic Review</td>
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<td>2:30 – 5:00 Project Work</td>
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<td>1:00 – 5:00 Clinic</td>
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<tr>
<td>PM</td>
<td>Project Work</td>
<td>1:00 – 5:00 Clinic</td>
<td>Project Work</td>
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ON-CALL SCHEDULE & WEEKEND ACTIVITIES:  None

ADDITIONAL COMMENTS AND OTHER SPECIAL REQUIREMENTS:  While many students will choose to implement a project that involves software development, programming experience is not required.