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DREXEL UNIVERSITY School of Biomedical Engineering, Science & Health Systems

COURSE OUTLINE & SYLLABUS

QUARTER

SPRING 2010

COURSE

BMES 336 - Biomedical Informatics 2: Hospital And Patient Information Systems

CREDITS

3 Credits [Science: 1.0 - Engineering: 2.0 - General: 0.0]

SCHEDULE

Tuesdays: 6:00 pm - 8:50 pm

CATALOG DESCRIPTION

This course continues BMES 335 while emphasizing medical records and hospital and patient information handling. Both conventional and proposed patient and hospital information systems will be discussed as well as the impact of Federal, State and local regulations on the security and transfer of medical information.

INSTRUCTOR'S DESCRIPTION

Continues BMES 335. Presents a detailed and in depth review of clinical and patient information systems with emphasis on the opportunities and challenges of adopting electronic medical records systems. Examines the problems of patient information flow within the health care system.

PREREQUISITES N/A

INSTRUCTORS

Joseph P Welsh, JD, MBA, Adjunct School of Biomedical Engineering, Science & Health Systems Email: josephpwelsh@gmail.com and

Elliot B. Sloane, PhD, Director of Health Systems Engineering, Email: ebfloane@drexel.edu

TA: N/A

TEXTS: No text will be purchased: Student will use resources available online or in library

OBJECTIVES

1. Understand the evolution of Clinical Information Systems from a functional, technical and architectural perspective.
2. Understand the collection of collaborative business & architectural systems and components that comprise a enterprise's clinical information systems.
3. Develop a more in depth understanding of the way Electronic Health Record Systems in physician practice, ambulatory care and acute care settings can and will.

GRADING & REQUIREMENTS

Students must evaluate data and information sources pertaining to clinical information systems and electronic medical record systems. Each student will develop and present several analyses of selected current issues impacting the development, deployment or adoption of technology in healthcare today.

OVERALL STRUCTURE

Course includes lectures, class discussion, active participation and information evaluation during class.

Course Outline: Medical Informatics 2, Role in the Evolution/Revolution to Personalized Healthcare:

Using a lattice of

- A) Healthcare Environment (Law, Policy, Science, and Human Capital, Risks/Benefits/Returns) and
- B) Health Information Technology (Standards, Information Technologies, System Architectures, and Trade-offs)

Tentative Schedule

Week 1:

Introduction and orientation

Weeks 2 & 3

Module 1: History of health information systems; specialization, departments, businesses, and silos

Weeks 4 & 5

Module 2: The early 21st Century national policy and framework; emergence of interoperable EHRs

Weeks 6 & 7

Module 3: Contemporary national policy: latest national strategic plan through 2015 and beyond (Macro, micro, personal)

Weeks 8 & 9

Module 4: The Future: Goals, Visions, Possibilities, Consequences

Week 10

Conclusions, integration, interpretation, synthesis, & hypothesis