

COMP-SCI 5590HI - Introduction to Health Informatics

Spring 2013

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What is this course about?

This course will cover introductory material in health informatics and provide students the exposure to open-source and commercial software solutions for healthcare IT. It will cover basic definitions, concepts and terminologies in health informatics, and discuss point-of-care technologies, electronic medical record systems, electronic health records, patient health records, computerized physician order entry systems, and clinical decision support systems. It will also cover clinical trials and evidence based medicine, issues of health information security and medical privacy, including legal and ethical issues related to privacy and confidentiality, health information privacy and security practices, policies, and laws (e.g., HIPAA). Finally, this course will discuss the challenges arising in achieving interoperability between software applications exchanging electronic health records, including electronic data interchange standards and medical controlled vocabularies. There will be a couple of invited talks from health IT experts. Students will do a programming project using the IBM Academic Skills Cloud and software available therein (e.g., IBM Informix, IBM Cognos, IBM Biginsights).

Prerequisites: CS 352 or CS 404 or equivalent

Support for this course is provided by the IBM Smarter Planet Faculty Innovation Award 2010.

Relevance?

“The federal government’s economic stimulus package is dedicating \$19 billion to speeding the adoption of electronic health records, so demand for health informatics specialists is skyrocketing. “My rough estimate is that we need about 70,000 health informaticians,” said Don E. Detmer, president and chief executive of the American Medical Informatics Association, a nonprofit industry group.”

Christine Larson, *The New York Times*, April 11, 2009.
http://www.nytimes.com/2009/04/12/jobs/12starts.html?_r=0