HEALTH SCIENCE MAJOR

HEALTHCARE INFORMATICS

REV. 2015

IS HEALTHCARE INFORMATICS THE RIGHT CHOICE FOR YOU?

What is healthcare informatics?
Healthcare informatics is the integration of computer technology into health care. As a scientific discipline, it deals with the collection, storage, retrieval, communication, and optimal use of health related data information and knowledge. This data is used for health care problem solving and decision making.

What is the role of the healthcare information professional?
Information professionals play many roles in healthcare informatics. They help develop, program, install and manage clinical information systems; maintain and modify clinical information systems at hospitals or clinics; train health professionals to use data collection and decision management software; and provide ongoing customer support.

Where do healthcare information professionals work?
Jobs in healthcare informatics can be found in a wide variety of settings, from hospitals and clinics, to software development vendors, the U.S. government, and health care consulting firms.
Jobs for entry level graduates with bachelor's degrees are generally at the assistant or support staff level and may have titles such as network support personnel, clinical informatics specialist, customer support/training personnel, data entry clerk, or health records assistant.
Some of the best opportunities for entry into healthcare informatics can be found in large teaching hospitals because they employ information professionals in several departments.

Is there a demand for healthcare information professionals?
Healthcare informatics is considered one of the fastest growing specialties in health care, according to a recent forecast in *U.S. News and World Report*. Some students, especially those who complete internships, are hired before they graduate.
The U. S. Department of Labor also lists the growth rate for this field as being above average, with growth expected to continue for the next decade.

What is the salary range?
Entry level salaries for people with bachelor's degrees range from $35,000 to $50,000 depending on the degree major and related work experience or internships.

What else should I know?
The opportunity to advance within the healthcare information profession is significant. Experience and continuing education both play important roles in career development.
Healthcare informaticians with master's degrees or PhDs can earn up to $150,000 annually.

Our School of Health Technology and Management now offers a master's degree in Health Care Informatics.
HTTP://HEALTHTECHNOLOGY.STONYBROOKMEDICINE.EDU/PROGRAMS/AHI/INFO-SESSIONS

"Recently the U.S. entered "The Decade of Health Information Technology" by establishing a National Coordinator for Health Information Technology for the first time in its history. The mission: To get the majority of Americans, in both the public and private sector, interoperable electronic health records within the next 10 years in order to improve the exchange of information and treat emergent health care issues."

- Craig Lehmann, Ph.D., Dean, School of Health Technology and Management, Stony Brook University

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What are the requirements of the Healthcare Informatics concentration? Health Science majors must successfully complete the fall semester coursework before enrolling for the spring courses in the concentration. The following courses are strongly recommended for students enrolling in the concentration: CSE 101, CSE 113 and CSE 114.
Coursework during the spring semester provides students with the foundation for processing and managing healthcare data via computer and communication technology. Required courses include:

HAN 462 Developing Health Information System: Introduces students to fundamental hardware and software concepts, operating systems, GUI or desktop environments and system development life cycles. Reviews Windows applications such as spreadsheet, database, forms, queries and reports. Restricted to students approved for appropriate senior year track in the Health Science major.

HAN 464 Health Information Systems Management:: The course includes organizational change issues in health care environments, resource management (inventory, tracking and acquisition) and the role of policy formulation. Consumer issues, standards and security and the provision of health information resources to healthcare workers will also be covered. Relevant applications and issues related to health services will also be explored. Restricted to students approved for appropriate senior year track in the Health Science major.

HAN 465 Concepts and Case Studies in Health Informatics: Explores and showcases various healthcare organizations and the selection, implementation and evaluation of current and emerging technologies in Health Care Informatics (HCI). Explores practical applications of health care projects management skills obtained from on-going HCI courses. Analyzes case studies. Explores and showcases various health care organizations selection, implementation and evaluation of current and emerging technologies in health Care Informatics (HCI). Explores practical applications of health care project management skills obtained from ongoing HCI courses. Analyzes case studies within the HCI sector through a series of dynamic discussions and group projects making recommendations based on research and industry best practices. In a simulated project management environment, students evaluate leadership challenges and methodologies of health informatics applications. Prerequisite: Restricted to students approved for appropriate senior year track in the Health Science major.

HAN 466 Applied Health Care Informatics: Provides overview of the role of information systems in health care organizations. Emphasizes the integration of evidence-based research into clinical decision-making and the influence of information systems on health outcomes. Explores technical, organizational and cost-benefit issues related to health care information systems, including clinical decision-support, integrated networking and distributed computing technologies, telemedicine applications and artificial intelligence solutions. Through a combination of classroom-based seminars, group case studies, and computer laboratory exercises, students will develop and exercise analytical skills for appraising health information systems, as well as acquire practical experience using biomedical research databases, desktop application software, and electronic communication systems. Restricted to students approved for appropriate senior year track in the Health Science major

HAN 467 Applied Health Care Informatics: Provides the necessary tools to evaluate and implement research methods and utilize outcomes within the health care system. Presents an overview of statistics and research methods and evaluation techniques by utilizing group discussions and case studies. Demonstrates the utilization of technology as a resource for existing research as well as management tools. Restricted to students approved for appropriate senior year track in the Health Science major.

Internships may be available.

All spring courses culminate in a senior team project designed to give students real life experience in the informatics field.
Each team is charged with addressing an information technology problem relevant to the healthcare environment. This multi-faceted project relates to information problems taken from real situations including, but not limited to, mission-integrated use of information in a clinical, educational, administrative and/or research-based environment, and addressing data collection and distribution, information management and administration, systems analysis, regulatory compliance and/or information security and access.

To declare Health Science as your major, you are required to attend an Advising Workshop. To schedule an appointment, please email Jennifer Jimenez at jennifer.jimenez.1@stonybrook.edu.

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HSC, Level 2, Room 453
Phone: 631.444.2407
Fax: 631.444.1515
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OR VISIT OUR WEBSITE AT:

http://healthtechnology.stonybrookmedicine.edu/programs/hs

HOW TO BECOME A HEALTH SCIENCE STUDENT

Students can declare the Health Science major at any time during their academic career. All major courses are taken during the senior year.
In order to begin your senior year courses in the major, you must have:

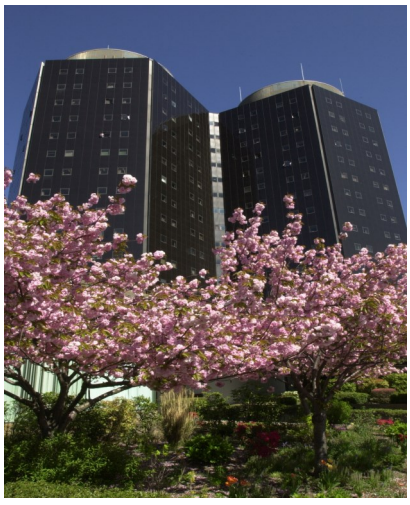
- a G.P.A. of at least 2.0 and have successfully completed 91 credits and have met all D.E.C/S.B.C requirements
  - * except TECH SBC requirement which will be satisfied during the senior year
  - * at least 16 credits in sciences, which must include HAN 200 and HAN 202 sequence, or equivalent sequence (ask advisor for information)
  - * 21 credits of related electives, which must include HAN 251 and HAN 312
  - * 10 upper division credits.

Successful completion of the following courses during the fall semester of your senior year is required:

Health Care Issues
Professional Ethics
Communication Skills
Professional Writing
Health Informatics

Strongly recommended courses for the Informatics Concentration include CSE 101, CSE 113 and CSE 114 PRIOR to beginning the Health Science senior year curriculum.

HEALTH SCIENCE MAJOR



PLEASE VISIT THE FOLLOWING WEBSITES FOR ADDITIONAL INFORMATION

Professional Organization:

American Medical Informatics Association (AMIA)
www.amia.org

Occupational and Employment Information

www.labor.state.ny.us
www.amia.org/jobexch/jobs/jobs.html
www.nycareerzone.org
www.dol.gov
www.salary.com
www.salary.monster.com