

Course Summaries – Bachelors in Health Informatics

Department of Health Informatics

Faculty of Public Health and Tropical Medicine - Jazan University

211 BHI Public Health Informatics (2 credit hours)

This course highlights the systematic application of information science and technology to public health practice, research, and learning in the area of public health. Key challenges of health informatics and IT applications for the core public health areas of epidemiology, environmental health, health policy, community assessment, and international health are included in the course.

321 BHI Introduction to eHealth (2 credit hours)

The course outlines the current practices and developments in the field of e-Health. It highlights the use of advanced technology to achieve provision of better quality healthcare services. The course provides an outline of using health applications like electronic health record software, clinical decision support systems, Telemedicine, mHealth and patient monitoring systems. It also describes the use of standards for the purpose of electronically integrating health services.

322 BHI Health Records (3 credit hours)

The course provides an understanding about the structure, functions and organization of a health records department and how medical records are compiled and maintained by health care providers. It highlights the various methods of record keeping around the world, discusses various types of record retention describes policies and procedures essential for successful, safe and accurate record keeping.

323 BHI Medical Terminology (3 Credit hours)

This course introduces students about basic medical terminologies used in the healthcare. This course focuses on many components of a medical terms and how to break down the terms by simply knowing the meaning of suffix and prefix. It also helps students to learn how to combine word to make a meaningful medical term.

331 BHI Information Systems in Healthcare (2 credit hours)

The main focus in this course is on the processes of health information systems and how they interact for the safe and secure exchange of personal health information. In this course, students will study about basic concepts of information technology, database management system, Health information management.

312 BHI Introduction to Psychology (3 credit hours)

The course introduces students to the scientific study of human behavior. The students will learn about the history of psychology, current patterns and theories, research methods, and statistical techniques. The goals of this course are to help acquire current scientific

knowledge of theories, methods, and scientific findings from the field of psychology and an understanding of the importance of critical thinking when evaluating psychological material.

321 HSM Essentials of Health Economics (2 credit hours)

Students will learn about the issues healthcare market environment is facing and how to ideally deal with them. The course will briefly cover the concepts of equity, principles of macroeconomics and microeconomics, relationship between economics and healthcare development, basic concept of demand and supply (law of demand and supply).

332 BHI Computer Applications 1(2 credit hours)

This course is designed to enhance the knowledge and skills of the participants in computer applications. Appropriate software for Introduction of computers, classifications of computers, components of digital computers will be taught. Students will also perform activities using integrated software programs.

341 BHI Introduction to Database (3 credit hours)

This course is intended to provide students with an understanding of the current theory and practice of database management systems. The course provides a solid technical overview of database management systems, using a current database product as a case study. In addition to technical concerns, more general issues are emphasized.

342 BHI Health Data Classification and Coding Systems (4 credit hours)

The course describes in detail the disease and procedure classification using the International Classification of Disease (ICD9 & ICD 10) Clinical Modification and Current Procedural Terminology (CPT) systems. This course also focuses briefly on process of medical insurance, billing and reimbursement. The students practice in the labs by applying basic principles of coding healthcare data using various components of the coding system. The AHIMA virtual lab codes are being used for practical purposes.

421 BHI Communication Skills (3 credit hours)

In this course the students will be familiarized about the characteristics of good communication skills and the 7Cs of communication i.e. completeness, conciseness, consideration, concreteness, clarity, courtesy, correctness. It also describes the barriers of communication and how to overcome these barriers.

451 BHI Research Methodology and Report Writing (3 credit hours)

The course will provide the students with the understanding of research concepts with the exploration of key aspects. The students will be introduced the elements of research process within qualitative, quantitative and mixed approaches. Students will utilize their theoretical understandings of the course which will assist them in writing the research document.

432 BHI Quality and Performance Improvement (2 credit hours)

This course is designed to give the student an introduction to the broad topic of quality management and improvement in the health care delivery performance. The quality assurance models, plan-do-check-act cycle, principles of quality, roles and responsibilities will be discussed while following the NCAAA guidelines.

423 BHI Financial Accounting (2 credit hours)

The course introduces the students to the principles of financial accounting and provides an insight into the concepts and uses of financial accounting information in context of a business environment. The course aims to provide the students a foundation for developing their skills in interpreting financial statements through practical training sessions.

424 BHI Ethical and Legal Aspects in Health Informatics (2 credit hours)

This course is designed to give the students a brief introduction about the major ethical and legal issues in health informatics; and laws and regulations for these issues, like Liability Law, Privacy and confidentiality rules, and HIPPA guidelines. Students will examine the trends in health informatics which may impact privacy rules.

433 BHI Computer Applications 2 (3 credit hours)

This course is designed to understand the operational basics of personal computers. Students will be covering the basic concepts in Computer Hardware, Software, Operating Systems, Databases, as well as the usage of the Internet and conversion of Microsoft file format into various other file formats. This is a complete lab based course where students will learn these applications by working on class assignments in the lab.

443 BHI Data Mining and Data Warehouse (2 credit hours)

The course addresses the concepts, skills, methodologies, and models of data warehousing. Students will be taught techniques of designing data warehouses for various business domains, and covers concepts for potential uses of the data warehouse and other data repositories in mining opportunities.

425 BHI Hospital Statistics (2 credit hours)

This course includes instructions on how to understand, manage and manipulate the hospital related data. Students will be taught as to how the health records are the primary source of data used in compiling health care statistics and the implications of collection, analysis, interpretation and presentation of statistical data.

434 BHI Systems Analysis and Design Methodology (3 credit hours)

This course introduces the evolving methodologies for the analysis, design, and development of an information system in healthcare. The course covers the important concepts and theories of systems analysis and designing, organizational structure, human computer interaction, and information processing; role of information systems analyst in an organization, structured analysis and modeling techniques, object oriented analysis and design, as well as unified modeling language.

435 BHI Network Architecture and Security Issues (3 credit hours)

This course covers mini-cases to develop a network security context. This course presents network and network security architecture viewpoints for selected security issues, including various security mechanisms, different layers of wired/wireless security protocols, different types of security attacks and threats and their countermeasures or mitigation.

444 BHI Database Management Systems (3 credit hours)

An introduction to computer databases examines the basic functions and capabilities of database management systems (DBMS). Emphasis is placed on the use of DBMS in solving information processing problems which will include database design case studies as well as SQL programming assignments. A class project may be assigned to each team. The students will be trained to develop the database system using CASE tools; and familiar with what it means to develop and implement a DBMS in an organization.

452 BHI Project Management (3 credit hours)

The course uses the project life cycle as the organizational guideline, and contents will cover the whole process of project management, including project initiation, project planning, project implementation and project termination. Students will study the characteristics of project and project management, look at how to define a project, how to organize a project, how to plan a project, how to implement, trace and control a project, and how to terminate and post-evaluate a project.

453 BHI Professional Practice (2 credit hours)

This course provides the opportunity to students to evaluate their strengths and weaknesses prior to stepping in professional life. This is a supervised professional practice experience that includes managerial or other related professional practice roles and experience in health information management departments and other health information related areas. Hospitals, medical centers, clinics and alternative healthcare facilities will be used for student visits. Students will prepare a project or carry out a research based study at the end.