# HEALTH SCIENCE (HS)

## HS100: Introduction to Health Science
In this introductory course, you will identify current issues in health science and how they relate to chosen health science professions. Educational and credentialing requirements will be defined for health science occupations. You will review your chosen degree plan, exploring appropriate electives and identifying specific career options based on personal goals and research of the profession. Professional traits and skills for success in the field will be explored as well as discussion of roles and responsibilities of selected health professionals.

Quarter Credit Hours: 5 | Prerequisite: None

### HS100M1: Education, Certification, and Credentials
Define the required education, certification, and credentials needed at the national and state level for a given health care profession.

Quarter Credit Hours: 1 | Prerequisite: None

### HS100M2: Roles and Responsibilities of Health Science Professionals
Discuss the roles and responsibilities of selected health science professionals.

Quarter Credit Hours: 1 | Prerequisite: None

### HS100M3: Health Science Career Resources
Compile relevant career resources and support materials for a health science profession.

Quarter Credit Hours: 1 | Prerequisite: None

### HS100M4: Current Issues in Health Science Professions
Describe how current issues in health sciences relate to health science professions.

Quarter Credit Hours: 1 | Prerequisite: None

### HS100M5: Traits and Skills of Health Science Professionals
Define the professional traits and skills needed to be successful in the field of health science.

Quarter Credit Hours: 1 | Prerequisite: None

## HS101: Medical Law and Bioethics
This course emphasizes the basic principles and applications of law, ethics, and bioethics as they relate to the medical arena. It covers legal terms, consent, contracts, physician/patient relationships, professional liability, and various medical issues. Through lectures, class discussions, case studies, and library research, students acquire knowledge of the importance of their professional, legal, and ethical responsibilities.

Quarter Credit Hours: 5 | Prerequisite: None

### HS101M1: Legal and Ethical Standards
Discuss the implications of legal and ethical standards for health care professionals.

Quarter Credit Hours: 1 | Prerequisite: None

### HS101M2: Health Care Regulations
Discuss federal and state health care regulations.

Quarter Credit Hours: 1 | Prerequisite: None

### HS101M3: Health Care Certifications
Apply ethical standards in accordance with applicable certification agencies.

Quarter Credit Hours: 1 | Prerequisite: None

### HS101M4: Medical Records and Privacy
Explain legal and ethical principles of confidentiality, documentation, and risk management.

Quarter Credit Hours: 1 | Prerequisite: None

## HS102: Characteristics of Health Science Occupations
This course provides an overview of the various health science occupations and their roles and responsibilities. Students will learn about the education, certification, and credentialing requirements for each profession, as well as the legal and ethical standards that govern the practice of health science.

Quarter Credit Hours: 1 | Prerequisite: None

### HS102M1: Education, Certification, and Credentials
Identify current topics in health care.

Quarter Credit Hours: 1 | Prerequisite: None

## HS101M5: Current Topics in Health Care
Identify current topics in health care.

Quarter Credit Hours: 1 | Prerequisite: None

## HS111: Medical Terminology
This course provides a logical understanding of the language of medicine. Basic prefixes, suffixes, word roots, and rules for taking a singular term and making it plural are studied, along with word analysis, word building, spelling, and pronunciation. These principles are applied to the study of the following systems: integumentary, skeletal, muscle/joints, blood and lymphatic, nervous, respiratory, and cardiovascular. Each body system is reviewed with anatomy and physiology, diagnostic, lab, and surgical procedures; and pharmacology for interest and knowledge.

Quarter Credit Hours: 5 | Prerequisite: None

### HS111M1: Elements of a Medical Term
Differentiate the word elements of a medical term.

Quarter Credit Hours: 1 | Prerequisite: None

### HS111M2: Formulating Definitions of Medical Terms
Formulate proper definitions of presented medical terms.

Quarter Credit Hours: 1 | Prerequisite: None

### HS111M3: Using Medical Terminology to Interpret Medical Reports
Interpret simulated medical reports using medical terminology.

Quarter Credit Hours: 1 | Prerequisite: None

### HS111M4: Translating Medical Terminology Into Layman's Terms
Demonstrate the ability to translate medical terminology and information into layman's terms for nonmedical personnel or patients.

Quarter Credit Hours: 1 | Prerequisite: None

### HS111M5: Composing Accurate Medical Terms
Compose accurate medical terms, based on established medical terminology guidelines.

Quarter Credit Hours: 1 | Prerequisite: None

## HS140: Pharmacology
This course is a systematic study of basic pharmacology principles with emphasis on the skills and information needed to succeed in a working environment. Topics covered include drug classes, dosage calculations and measurement conversions, drug administration routes, and proper medication documentation procedures.

Quarter Credit Hours: 5 | Prerequisite: None

## HS200: Diseases of the Human Body
Studies include principles of vaccinations and disease prevention, chronic diseases, diagnosis and treatments, and the economic impact. You will also learn about infectious diseases, disease etiology, symptoms, diagnostic tests, therapeutic methods, and disease prognosis. In addition, genes, mutations, inheritance, genetic diseases, cancer, and cancer treatments will be reviewed.

Quarter Credit Hours: 5 | Prerequisite: None

## HS210: Medical Office Management
The course explores procedural guidelines for accomplishing various administrative tasks in the health care setting. Topics include management of patient information, operational functions, and general workplace competencies of health care employees.

Quarter Credit Hours: 5 | Prerequisite: MA265 and MA275 or permission from the Dean
HS215: Medical Insurance and Billing
This course provides an understanding of health care insurance billing and insurance concepts in practice today. It includes medical insurance billing theory and methodology, and covers specific reimbursement theories, health care concepts, and the practical application of third-party insurance rules.
Quarter Credit Hours: 3 | Prerequisite: None

HS220: Medical Coding and Insurance
Using various coding methodologies, students learn basic coding principles used in filing insurance claims. Students also become acquainted with various types of health insurance and insurance terminology.
Quarter Credit Hours: 5 | Prerequisite: MA265 and MA275 or permission from the Dean

HS230: Health Care Administration
This course discusses the scope and practice of health care administration. Students learn various models of health care delivery systems and social, political, individual, and organizational forces that impact health care delivery. Studies will include marketing, operations, financial, and human resources management, as well as effective communication strategies involved in health care administration.
Quarter Credit Hours: 5 | Prerequisite: None

HS230M1: Leading Health Care Organizations
Evaluate the roles and responsibilities of administering, managing, and leading health care organizations.
Quarter Credit Hours: 1 | Prerequisite: None

HS230M2: Forces That Impact Health Care
Differentiate among the forces that influence the health care delivery system.
Quarter Credit Hours: 1 | Prerequisite: None

HS230M3: Health Care Access
Critique the United States health care delivery system in comparison to other developed countries in regard to health care access.
Quarter Credit Hours: 1 | Prerequisite: None

HS230M4: Legal and Ethical Challenges for Health Care Organizations
Recommend a solution to a legal and ethical challenge by using a strategic leadership approach appropriate for health care organizations.
Quarter Credit Hours: 1 | Prerequisite: None

HS230M5: Operational Principles of Human Resources in Health Care Organizations
Evaluate the principles of change management, staffing, and leadership within the planning of human resources in a health care facility.
Quarter Credit Hours: 1 | Prerequisite: None

HS240: Medical Office Accounting
This course will introduce students to the fundamental concepts and practice of medical office accounting. Topics include basic bookkeeping procedures, accounts receivable, payroll, banking processes, petty cash, and billing and collection procedures.
Quarter Credit Hours: 3 | Prerequisite: None

HS250: Cardiac Rhythm Analysis and Telemetry
This course provides an in-depth overview of telemetry and why it is important to monitor a heart's electrophysiology. The course covers basic cardiac terminology, anatomy related to the heart, electrophysiology, an introduction of monitoring principles, and an analysis of common and potentially lethal dysrhythmias, including sinus, atrial, junctional, and ventricular arrhythmias, heart blocks, pacemakers, and special considerations. Additionally, students will become familiar with regulatory and compliance standards to include patient safety, emergency response, documentation, and patient interaction skills. This course prepares students to sit for the Certified Rhythm Analysis Technician Examination offered by Cardiovascular Credentialing International.
Quarter Credit Hours: 5 | Prerequisite: None

HS255: Sterile Processing for Surgical Technologists
This course covers the regulatory standards and recommended practices for surgical technologists. Emphasis is placed on the principles of aseptic and sterile technique, encompassing decontamination and disinfection, and their pertinence in safe patient care practices. Core concepts such as preparation, packaging, and surgical instrumentation are addressed. Knowledge of anatomy and physiology and medical terminology are reinforced from the perspective of surgical technology.
Quarter Credit Hours: 5 | Prerequisite: None

HS275: Professionalism in Health Care
This course introduces students to professionalism in the medical setting. Emphasis is placed upon communication, appearance, diversity, emergency preparedness, and preparation of the professional portfolio. Students prepare a portfolio that contains job search documents.
Quarter Credit Hours: 2 | Prerequisite: None

HS290: Associate's Capstone in Health Science
Designed to be a culminating educational experience, the Associate of Science in Health Science capstone course integrates coursework, knowledge, and skills to enable you to demonstrate mastery of learning across the curriculum. You will complete a summary portfolio addressing requirements in selected career focus areas. Submissions will include, but will not be limited to, assessments demonstrating knowledge and skills, and reflections on learning.
Quarter Credit Hours: 5 | Prerequisite: Final term

HS292: Billing and Coding Practicum
This course is designed to build on the concepts and skills of program courses, specifically medical billing and coding. You will gain practical experience in medical billing, coding, and administrative functions in both an online virtual lab setting and in a health care facility.
Quarter Credit Hours: 3 | Prerequisite: Last term or permission from the Dean

HS298: Externship Extension Course
This course will provide the student with a mentored learning experience in the content area and site selected by the student and approved by the Clinical Coordinator. This course may be taken after a health sciences externship course for the specific purpose of externship hour completion.
Quarter Credit Hours: 0 | Prerequisite: HI499, MA290, MA295, or MO290
HS305: Research Methods for Health Sciences
This course enables you to explore ethics within the health industry, research methods, and the evaluation of scientific literature. You will engage with health data through database querying, data extraction, and data mining opportunities. You will learn to procure appropriate metrics for analysis, utilize data mining to generate insights into health organizational outcomes, and evaluate health data to make evidence-based decisions. You will use computer software applications to manage data throughout this course.
Quarter Credit Hours: 6 | Prerequisite: None

HS305M1: Ethics in Health Science Research
Show competency in protecting human subjects and adherence to Institutional Review Board (IRB) processes and policies.
Quarter Credit Hours: 1 | Prerequisite: None

HS305M2: Research Methods and Literature Review
Apply principles of research and clinical literature evaluation to improve outcomes.
Quarter Credit Hours: 1 | Prerequisite: None

HS305M3: Data Visualization and Analysis
Analyze results to facilitate decision making.
Quarter Credit Hours: 1 | Prerequisite: None

HS305M4: Data Collection, Mining, and Extraction
Create reports by database querying and data exploration, mining and extraction techniques, and methodologies to facilitate information retrieval.
Quarter Credit Hours: 1 | Prerequisite: None

HS305M5: Data-Driven Decision Making
Formulate organizational action based on knowledge obtained from data exploration and mining.
Quarter Credit Hours: 1 | Prerequisite: None

HS305M6: Data Evaluation
Combine various metrics that produce insight into health trends.
Quarter Credit Hours: 1 | Prerequisite: None

HS311: Epidemiology and Biostatistics I
In this course, you will explore the use of descriptive statistics within the health industry. You will learn to summarize data by the data center (i.e., central tendency) and data spread (i.e., variability). A focus on visual representation of data will be introduced. You will demonstrate your data analytical skills by proposing recommendations to a health industry issue based on summary statistics and/or health care or epidemiological formulae.
Quarter Credit Hours: 6 | Prerequisite: None

HS312: Epidemiology and Biostatistics II
You will collect and analyze data in order to solve health and clinical problems. In this course, you will study inferential statistics and advanced epidemiological constructs. You will study epidemiology and biostatistics as it applies to peer-reviewed, health-based publications.
Quarter Credit Hours: 6 | Prerequisite: HS311

HS315: Practices in Public Health
This course guides students through the practice of public health. Real-world public health issues are presented and evaluated through the use of case study analysis. Case studies cover fundamental competencies of the public health practitioner, including community health assessment and health policy development. In addition, students will examine problem-solving strategies through problem-based learning.
Quarter Credit Hours: 6 | Prerequisite: None

HS315M1: Best Practices for Community Health Assessment
Assess how best practices can be used in community health assessment.
Quarter Credit Hours: 1 | Prerequisite: None

HS315M2: Using Systems Thinking to Build Stakeholder Relationships
Apply systems thinking to build relationships with public health stakeholders.
Quarter Credit Hours: 1 | Prerequisite: None

HS315M3: Health Policy and Law
Analyze how health policy is used to address current public health challenges.
Quarter Credit Hours: 1 | Prerequisite: None

HS315M4: Health Promotion
Create strategies to promote health within a community.
Quarter Credit Hours: 1 | Prerequisite: None

HS315M5: Environmental Health and Emergency Preparedness and Response
Evaluate a public health response to a disease within a population.
Quarter Credit Hours: 1 | Prerequisite: None

HS315M6: Evidence-Based Public Health
Propose solutions for public health problems using evidence-based approaches.
Quarter Credit Hours: 1 | Prerequisite: None

HS320: Microbiology
This course introduces students to a diverse world of microorganisms including their role in health and disease. Properties of prokaryotes and eukaryotes are discussed, with emphasis on different characteristics of microorganisms including morphology, metabolism, physiochemical characteristics, and genetics. Students learn how microorganisms contribute to all areas of everyday life including food, water, environment, and industry. Important microbial diseases and the immune system and its role in fighting microbial diseases are also explored.
Quarter Credit Hours: 6 | Prerequisite: None

HS410: Organization and Management for Health Care
This course centers on the foundations of health care organizations and systems, particularly the outside influences of licensing and accrediting agencies. The clinical classification systems, clinical vocabularies, and nomenclatures are detailed. The nontraditional role of the health information professional in management and administrative roles is also discussed.
Quarter Credit Hours: 6 | Prerequisite: None

HS410M1: Language of Health Care
Analyze taxonomies, clinical vocabularies, terminologies, and nomenclature used in health care settings.
Quarter Credit Hours: 1 | Prerequisite: None

HS410M2: Applying Management Principles to Resource Utilization
Apply appropriate management principles to best utilize available resources to achieve objectives within a health care organization or system.
Quarter Credit Hours: 1 | Prerequisite: None

HS410M3: Accreditation and Licensure for Health Care Organizations
Compare the roles of governmental and nonprofit agencies in accreditation and licensure of health care organizations and professionals.
Quarter Credit Hours: 1 | Prerequisite: None
HS410M4: Standards and Regulations
Compare standards and regulations for health record documentation.
Quarter Credit Hours: 1 | Prerequisite: None

HS410M5: Professional Ethics in Health Care
Integrate personal and professional ethics to achieve organizational goals.
Quarter Credit Hours: 1 | Prerequisite: None

HS410M6: Principles of Management
Evaluate organization and management principles in health care settings.
Quarter Credit Hours: 1 | Prerequisite: None

HS415: Environmental Health
This course addresses environmental issues and the principles, scope, and practice of environmental sciences, including investigative methodologies, natural resource management, pollution prevention, and pollution control. The local, state, and federal environmental agencies and regulations governing environmental health are discussed.
Quarter Credit Hours: 6 | Prerequisite: None

HS420: Advanced Health Informatics
The health information field is strongly influenced by data and data standards. This course focuses on the structure and use of health information, storage methods, data sets, and e-health delivery. In addition, the development of clinical, financial, and decision support systems are addressed.
Quarter Credit Hours: 6 | Prerequisite: None

HS440: Finance for Health Care
This course provides you with a description of the current financial environment in which health care organizations operate. It also supplies you, as a future health care decision-maker, with an understanding of key health care finance concepts, basic managerial and accounting principles, the budget process, and tools used for financial analysis. You will be provided focused information on financing, funding, and reimbursement of health services including for-profit, nonprofit, and managed care organizations, as well as governmental programs such as Medicare and Medicaid. Discussions on the application of financial information give students useful information to make financial decisions to better the cost-effectiveness of an organization.
Quarter Credit Hours: 6 | Prerequisite: None

HS440M1: The Financial Environment of Health Care
Describe the current financial environment in health care and its influence on decision-making.
Quarter Credit Hours: 1 | Prerequisite: None

HS440M2: Cost Structure, Reimbursement, and Financial Analysis in Health Care
Describe international standard diagnosis classification use in the U.S. health care reimbursement and billing system.
Quarter Credit Hours: 1 | Prerequisite: None

HS440M3: Financial Reporting in Health Care
Analyze major financial reports used in health care organizations.
Quarter Credit Hours: 1 | Prerequisite: None

HS440M4: Financial Operations and Quality Control in Health Care Organizations
Utilize financial analysis to inform management decisions.
Quarter Credit Hours: 1 | Prerequisite: None

HS440M5: Capital Investment and Cost Analysis in Health Care Organizations
Explain the methodologies and processes used in preparing budgets for health care organizations.
Quarter Credit Hours: 1 | Prerequisite: None

HS440M6: Financing Health Care Reform Mandates in Health Care Organizations
Explain the financial impact of health care reform on health services organizations.
Quarter Credit Hours: 1 | Prerequisite: None

HS450: Strategic Planning and Organizational Development for Health Care
This course provides a foundation in strategic management for health care organizations built on professional ethics, personal integrity, and respect for all persons. You will explore the theoretical, procedural, and cultural aspects of change management through strategic planning and organizational analysis. Evidence-based management skills are explored using the tools and techniques that monitor quality and performance compliance throughout a health care facility.
Quarter Credit Hours: 6 | Prerequisite: None

HS450M1: Mission, Vision, and Values in Health Care
Assess the impact of leadership, mission, vision, ethics and culture on the foundation for strategic planning.
Quarter Credit Hours: 1 | Prerequisite: None

HS450M2: Team Building and Strategic Planning in Health Care Organizations
Demonstrate how effective team building optimizes the implementation of strategic planning.
Quarter Credit Hours: 1 | Prerequisite: None

HS450M3: Leadership and Organizational Strategies in Health Care
Describe the leadership factors that affect organizational strategy among clinical engagement and the health care system.
Quarter Credit Hours: 1 | Prerequisite: None

HS450M4: Management of Quality and Performance in Health Care Organizations
Apply tools and techniques in the management of quality and performance in a health care setting.
Quarter Credit Hours: 1 | Prerequisite: None

HS450M5: Impacts of Leadership on Employee Perception and Productivity
Evaluate the impact of leadership on employee motivation, productivity, and job satisfaction.
Quarter Credit Hours: 1 | Prerequisite: None

HS450M6: Training Strategies in Health Care Organizations
Demonstrate how effective training strategies that resolve emerging issues in a health care environment.
Quarter Credit Hours: 1 | Prerequisite: None

HS460: Project Design and Management for Health Care
The departments of quality assessment, utilization management, and risk management work closely with the health information department. This course teaches you the principles of project management, reengineering, and work redesign, which are important to the health information professional when working within these departments.
Quarter Credit Hours: 6 | Prerequisite: None

HS460M1: Quality Management Tools
Design quality assessment and management tools.
Quarter Credit Hours: 1 | Prerequisite: None

HS460M2: Risk Management Programs
Differentiate the components of risk management programs.
Quarter Credit Hours: 1 | Prerequisite: None
HS460M3: Utilization Management
Explain the role of quality assessment in the utilization management process.
Quarter Credit Hours: 1 | Prerequisite: None

HS460M4: Health Information Projects
Evaluate health information projects.
Quarter Credit Hours: 1 | Prerequisite: None

HS460M5: Project Management Techniques
Apply project management techniques to ensure efficient planning of workflow.
Quarter Credit Hours: 1 | Prerequisite: None

HS460M6: Project Management Facilitation
Facilitate project management by executing project tasks and activities.
Quarter Credit Hours: 1 | Prerequisite: None

HS484: Independent Direct Study in Health Sciences
In this course, you will engage in an independent, directed studies project focused on a self-selected research project. You will define your professional goals and select a topic of inquiry aligned to those goals. There is flexibility built into the course with the intent of giving you options to synthesize and apply current health science concepts into your own unique health profession and community.
Quarter Credit Hours: 4 | Prerequisite: None

HS490: Health Science Internship
The health sciences undergraduate internship course provides you with the opportunity to focus on acquiring additional knowledge, skills, and abilities to enhance professional success. Opportunities to focus on specific career paths and/or topics in health sciences related to your degree will be emphasized.
Quarter Credit Hours: 6 | Prerequisite: Permission from School of Health Sciences Dean and internship directors

HS499: Bachelor's Capstone in Health Science
This capstone course is the culminating experience for the Bachelor of Science in Health Science. This course builds on the concepts of all the courses students have taken within the program of study. The capstone course provides students with the opportunity to integrate and synthesize the knowledge and skills acquired throughout their coursework in an original comprehensive project, and to assess their level of mastery of the stated outcomes of their degree program in health sciences.
Quarter Credit Hours: 6 | Prerequisite: Last term