HEALTH SCIENCES (HSCI)

HSCI 0--. HSCI LOWER DIVISION. (0-10 Credits)
Lower Level Coursework in Health Sciences
Level: Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions: None
Primary grade mode: Transfer
Schedule type(s): Lecture
Area(s) of Inquiry: None

HSCI 1--. HSCI UPPER DIVISION. (0-10 Credits)
Upper Level Coursework in Health Sciences
Level: Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions: None
Primary grade mode: Transfer
Schedule type(s): Lecture
Area(s) of Inquiry: None

HSCI 2--. HSCI-UPPER DIVISION. (1-10 Credits)
Graduate Level Coursework in Health Sciences
Level: Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions: None
Primary grade mode: Transfer
Schedule type(s): Lecture
Area(s) of Inquiry: None

HSCI 020. INTRODUCTION TO HEALTH SCIENCES. (2 Credits)
This course is designed to provide students support throughout their transition to Drake University and the College of Pharmacy and Health Sciences (CPHS). Students will be introduced to essential academic policies, procedures and programs that will assist them in laying a strong foundation for academic success at Drake. Students will also have the opportunity to explore various health professions and resources for academic and career planning. Course activities will include lecture, guest presentations, health professions speakers and panels, reflective activities and class discussions.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Enrollment is limited to students with an major in HSCI: Clinical&Applied (HS-A), HealthSci: Clinical & Applied, HealthSci: Health Care Admin, HealthSci: Health Services Mgt, HSCI: Clinical&Applied (HS-O), HSCI: Clinical&Applied (PPHR), HealthSci: Public Health or Health Sciences.

Enrollment limited to students in the Pharmacy & Health Sciences college.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 021. PROFESSIONALISM IN HEALTH CARE. (2 Credits)
This course is designed to help students understand the common professional standards that all health care workers need to provide excellent care and service. Students will introduced to these and other crucial soft skills such as work ethic, character, relationships, teamwork, communication and etiquette, honesty, cultural competence, personal image, and personal health and wellness. Students will continue to navigate academic policies, procedures and programs that will assist them in laying a strong foundation for academic success at Drake. Students will also have the opportunity to engage in career and professional development to include job shadowing, creation of a resume and cover letter, and mock interviews. Course activities will include lecture, guest presentations, health professions speakers and panels, reflective activities and class discussions.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): HSCI 020
Corequisite(s): None
Restrictions:
Enrollment is limited to students with an major in HSCI: Clinical&Applied (HS-A), HealthSci: Clinical & Applied, HealthSci: Health Care Admin, HealthSci: HC Admin/Pub Hlth, HealthSci: Health Services Mgt, HSCI: Clinical&Applied (HS-O), HSCI: Clinical&Applied (PPHR), HealthSci: Public Health or Health Sciences.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 025. INTRODUCTION TO US HEALTHCARE SYSTEMS. (3 Credits)
This 3 credit hour course in the Health Sciences sequence is an introduction to the U.S. health care system - how it is structured and how it functions. Health Services are presented in broad perspective, grounded in cost, quality and access. On completing the course, students should have acquired the following abilities: Describe the structure and defining characteristics of the U.S. health care system; Define health and recognize the impact of various factors, including the health care system, on health; Describe primary sources of health care spending and means of reimbursement; Explain the concept of access to health care and factors that influence it; Understand the goals and functions of public health in protecting the health of populations; Explain the various roles government plays in the U.S. health care system; Describe types of health care workers and recognize factors that influence the supply and demand aspects of the workforce; Explain how quality care is defined, measured, and monitored; Understand the impact of health policy on health care and the political pressures exerted on the formation of health policy and the probability of reform.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Students with a classification of Freshman may **not** enroll.

Enrollment is limited to students with an major in HSCI: Clinical&Applied (HS-A), HealthSci: Clinical & Applied, HealthSci: Health Care Admin, HealthSci: HC Admin/Pub Hlth, HealthSci: Health Services Mgt, HSCI: Clinical&Applied (HS-O), HealthSci: Public Health or Health Sciences.

Enrollment limited to students in the Pharmacy & Health Sciences college.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 055. INNOVATION AND LEADERSHIP IN HEALTH SCIENCES. (3 Credits)
The purpose of this course is to provide students with an understanding of innovation, entrepreneurship, and intrapreneurship in the health sciences. Through class activities and self-reflection, students will have an opportunity to discover how well they are personally suited to lead, manage change, and innovate. Students will also be to basic management skills necessary to identify, evaluate and capitalize on opportunities.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Students with a classification of Freshman or Sophomore may **not** enroll.

Enrollment is limited to students with an major in HSCI: Clinical&Applied (HS-A), HealthSci: Clinical & Applied, HealthSci: Health Care Admin, HealthSci: HC Admin/Pub Hlth, HealthSci: Health Services Mgt, HSCI: Clinical&Applied (HS-O), HSCI: Clinical&Applied (PPHR) or HealthSci: Public Health.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 060. STATISTICS IN HEALTH SCIENCES. (3 Credits)
This course reflects the intersection of statistics theory and evidence-based practice in the health sciences. Course objectives revolve broadly around the process of hypothesis testing in laboratory and clinical research. This course is designed to enable students, as future health scientists or health care professionals, to understand fundamental descriptive and inferential statistics used in health research. The primary course format involves lecture, discussion, and problem-solving exercises.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): MATH 050 or MATH 020 or MATH 028
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: Critical Thinking, Quantitative

HSCI 095. MEDICAL TERMINOLOGY. (1 Credit)
Medical Terminology is a web-instructed course of the terminology used commonly in the healthcare setting that emphasizes the word-building process employing prefixes, suffixes, roots, as well as connecting and combining forms. This course will allow students to acquire an understanding of medical meanings through a body system approach. Common medical acronyms, abbreviations and medications are also reviewed. Students will perform weekly web-based lab activities and demonstrate knowledge of course material through written assignments and exams.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Enrollment is limited to students with an major in HSCI: Clinical&Applied (HS-A), HealthSci: Clinical & Applied, HealthSci: Health Care Admin, HealthSci: HC Admin/Pub Hlth, HealthSci: Health Services Mgt, HSCI: Clinical&Applied (HS-O), HealthSci: Public Health or Health Sciences.

Students in the PH_HS-R_BS program may **not** enroll.

Enrollment is limited to Undergraduate level students.

Enrollment limited to students in the Pharmacy & Health Sciences college.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 100. SOCIAL DETERMINANTS OF HEALTH. (2 Credits)
Social determinants of health affect everyone, and the ability to effectively address them is critical to the success of health systems. This course provides an in-depth look at the social determinants of health domains and how health professionals and communities can address them to help individuals achieve optimal health status. Different social determinants of health theories and resiliency will be explored, along with resources and tools that promote health and well-being. Format of the course will be lecture and discussion and guest speakers providing case studies and demonstrations. Students will be essential in contributing to discussions and demonstrating comprehensive knowledge in a final presentation.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): PHAR 171 or HSCI 144 or HSCI 143
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 102. PRINCIPLES OF HEALTH ECONOMICS. (3 Credits)
This course provides students with an introduction to economic principles and an understanding of how these principles apply to the U.S. Health Care system. Specifically, by examining topics such as the demand for health care, the health care workforce and the role of government, students will be able to think critically about the efficiency of health care markets and the effectiveness of public policy. The format of the course will be in-class lectures that incorporate student discussion.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Enrollment limited to students in the Pharmacy & Health Sciences college.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 103. NARRATIVE HEALTHCARE. (2 Credits)
This class will use stories written by patients, their family members, health care providers, and other authors to encourage students to develop empathy and understanding in preparation for working in a health care setting. The readings are chosen with an emphasis on providing a varied and robust patient-centered viewpoint of disease, illness, recovery, and death. Students will be asked to identify, reflect upon, discuss, and write about concepts and impressions generated by assigned readings. A combination of lecture, discussion of assigned reading material, and writing exercises will be used to facilitate comprehension of the course material.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): (HSCI 025 or PHAR 051)
Corequisite(s): None
Restrictions:
Enrollment limited to students in the Pharmacy & Health Sciences college.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 104. GLOBAL HEALTH. (3 Credits)
This interdisciplinary course will allow students to explore global health concepts by examining case studies of health conditions in countries across the world. Students will also have the opportunity to apply their learning through a service-learning project. Critical reflection and civic learning will be incorporated in the service-learning project through a collaboration with students at TecnolÃ³gico de Monterrey (Tec) in Guadalajara, Mexico. Developing active citizenship will be emphasized as a way to make a local â€“ global connection in global health. The course will be a of in-class time combined with virtual course meetings, course readings, project preparation and dedicated time for service.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Students with a classification of Freshman may **not** enroll.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: Global and Cultural Understand

HSCI 105. VALUES AND ETHICS IN HEALTH SCIENCES. (3 Credits)
This course is designed as an introduction to the role of ethics and values in the health sciences and health professions. In light of the ethical dilemmas which inevitably arise in healthcare environments, this course will expose students to evidence-based strategies and practices for managing such ethical situations. In a broad attempt to bridge the gap between basic ethics theories and practical application, students will demonstrate competencies through a series of case scenarios. In addition, students will be better prepared to successfully navigate ethical decision making within clinical applications unique to their careers, as well as those unique to working in interprofessional teams.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Students with a classification of Freshman or Sophomore may **not** enroll.

Enrollment is limited to students with an major in HSCI: Clinical&Applied (HS-A), HealthSci: Clinical & Applied, HealthSci: Health Care Admin, HealthSci: HC Admin/Pub Hlth, HealthSci: Health Services Mgt, HSCI: Clinical&Applied (HS-O) or HealthSci: Public Health.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: Values and Ethics

HSCI 106. CULTURE CARE AND HEALTH LITERACY. (3 Credits)
Cultural competence, health disparities, and health literacy are important topics in health care delivery in the United States. An increasingly diverse patient population requires that health care providers acquire both generic and specific cultural knowledge for the patient populations served. It is important to address and reduce health disparities and low health literacy. This course will address the necessary adaptations to healthcare delivery that reflects an understanding of diversity between and within cultures. Health literacy, the person's ability to obtain, process, and understand health information needed to make informed health decisions, is studied in relation to health outcomes. The course will progress through four units to include: [1] Foundations of Culture Care, [2] Cultural Considerations and Application, [3] Health Disparities, and [4] Health Literacy. The course will include lecture with group discussion on current topics and case studies. Students will apply the strategies acquired through completion of a cultural competence and values self-assessment, a photovoice assignment addressing health disparities, and a health literacy project.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Students with a classification of Freshman may **not** enroll.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: Engaged Citizen, Global and Cultural Understand

HSCI 107. SKELETAL MUSCLE STRUCTURE AND FUNCTION. (1-3 Credits)
The main objective of this course is to provide material on skeletal muscle anatomy, physiology, and functional properties. This will provide a basis for the discussion of changes in muscle structure and function during periods of increased use, such as endurance or strength training, or periods of decreased use, such as injury or disease. The effects of hormones and/or supplements on muscle repair, power, and endurance will also be discussed. Completion of this course will provide an advanced understanding of muscle properties and how this knowledge can be used in areas such as physical therapy, injury prevention, and/or the design of training programs. This course includes lectures, discussions, current event examples, article critiques, and lab exercises. Lectures and discussions are designed to go beyond the text and cover recent research and lab results.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Students with a classification of Freshman may **not** enroll.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: Life Science

HSCI 108. INTRODUCTION TO US HEALTHCARE POLICY. (1-3 Credits)
This course provides students with an introduction to health care policymaking and politics in the U.S. Given the current political climate and the ongoing discussions/ debates regarding the future of health policy, it is becoming increasingly important that students not only have an understanding of the policymaking process, but also the ability to evaluate policy proposals by identifying both their strengths and weaknesses. In addition, by learning about past policy failures and successes, students will be able to recognize the emerging controversies in health policy and potential options for reform. The format of the course will be in-class lectures that incorporate significant student discussion.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Students with a classification of Freshman may **not** enroll.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: Values and Ethics

HSCI 109. COMP PATIENT ASSESSMENT. (3 Credits)
Patient assessment is a core skill of all health care professionals. Health Sciences and Pharmacy students enrolled will acquire a basic foundation of knowledge and skills regarding patient assessment in order to achieve the following goals: 1. Proficiently obtain and monitor a patient's vitals 2. Demonstrate effective communication skills for future interactions with patients and healthcare professionals 3. Complete an appropriate patient history and document findings 4. Communicate appropriately in regards to patient evaluation, care, and referral 5. Conduct basic clinical screenings including neurological, musculoskeletal, and wellness 6. Become aware of various equipment used in healthcare and basic set up of the equipment 7. Become aware of common treatment approaches to specific medical diagnoses in the United States 8. Outline the primary differences between the United States and Austrian healthcare system to include: direct access, health care law, treatment approaches, etc. 9. Discuss interprofessional education efforts in the United States and understand how they relate to overall patient assessment 10. Describe the overall process and challenges that were faced working within an intercultural team
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): BIO 012 or PHAR 125 or HSCI 125
Corequisite(s): None
Restrictions:
Enrollment limited to students with a classification of First Year Athletic Training, Junior, Second Year Occupational Ther, First year Pharmacy, Second year Pharmacy, Sophomore or Senior.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 120. BEHAVIORAL AND SPORT PSYCHOLOGY. (3 Credits)
This course examines foundational material in sport psychology as it relates to integrated health care, injury rehabilitation, and performance. Course readings, discussions, and assessments will address topics such as individual and social aspects of health and performance- related behavior, as well as theoretical approaches for the promotion and support of behavior change among patients or clients. This course is designed to enable students as future health care professionals to understand the continuum of mental health, as well as learn skills and/or referral processes required to support clients spanning the continuum.
Level: Graduate, Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Enrollment limited to students with a classification of Junior, Sophomore or Senior.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Web Instructed
Area(s) of Inquiry: None

HSCI 125. MEDICAL PHYSIOLOGY. (3 Credits)
This course examines the principles of modern human medical physiology. Emphasis is on understanding and analyzing the function and integration of physiological systems through the examination of homeostatic mechanisms progressing from molecular events to cellular, organ and system levels. The course will include lecture and in-class lab simulations.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): BIO 012 and (BIO 018 or HSCI 141) and HSCI 125L (may be taken concurrently)
Corequisite(s): None
Restrictions:
Enrollment is limited to students with an major in HSCI: Clinical&Applied (HS-A), HealthSci: Clinical & Applied, HealthSci: Health Care Admin, HealthSci: HC Admin/Pub Hlth, HealthSci: Health Services Mgt, HSCI: Clinical&Applied (HS-O), HealthSci: Public Health or Health Sciences.

Enrollment is limited to Undergraduate level students.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 125L. PHYSIOLOGY LAB. (1 Credit)
The purpose of the course is to provide the opportunity to utilize state of the art laboratory equipment and techniques to accurately assess human physiology under various conditions. Exercise and environmental stressors are utilized to study physiological principles and maintenance of homeostasis with emphasis on the cardiovascular, respiratory, metabolic, and neuromuscular systems. The course will include data collection, presentation of observations in laboratory reports, and analysis of results in the context of normal physiological function.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): PHAR 125 (may be taken concurrently) or BIO 129 (may be taken concurrently) or HSCI 125 (may be taken concurrently)
Corequisite(s): None
Restrictions:
Students cannot enroll who have a major in Pharmacy or Pre-Pharmacy.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lab, Web Instructed
Area(s) of Inquiry: None

HSCI 140. PATIENT ASSESSMENT. (3 Credits)
Patient assessment is a core skill of all health care professionals. Health Sciences students enrolled will acquire a basic foundation of knowledge and skills regarding patient assessment in order to: 1. Monitor a patient's vitals 2. Demonstrate effective communication skills for future interactions with patients and healthcare professionals 3. Complete an appropriate patient history 4. Document findings 5. Communicate appropriately in regards to patient evaluation, care, and referral 6. Conduct basic wellness screenings 7. Become aware of various equipment used in healthcare and the basic set up of the equipment During this course, the student will be introduced to basic techniques and skills used in order to obtain a complete and problem-focused patient/client history, physical examination, and appropriate documentation of such assessments. The laboratory sessions will provide the student an opportunity to practice these skills and to enhance their critical thinking. Note: This is intended to be an introductory and basic skills class.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): PHAR 125 or BIO 129 or HSCI 125
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 141. HUMAN ANATOMY. (3 Credits)
This course includes the study of the gross anatomy of the human body. The course begins with teachings of the basic cell structure and tissue levels of organization. Other lecture areas include the study of the integumentary system, axial and appendicular skeleton, muscular system, nervous system, as well as other organ systems of the body. Lab activities will be included within the lecture course.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): (HSCI 141L (may be taken concurrently)
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 141L. HUMAN ANATOMY LAB. (1 Credit)
The Human Anatomy Lab will provide hands-on learning to accompany topics covered in the Human Anatomy Lecture. Students will work independently and in groups to explore structures and systems of the human body.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): HSCI 141 (may be taken concurrently)
Corequisite(s): HSCI 141
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lab, Web Instructed
Area(s) of Inquiry: None

HSCI 142. COMMUNITY HEALTH EDUCATION. (2 Credits)
This elective course examines the competency-based framework utilized to improve health outcomes via effective community health education. The purpose of this course is to expose students to the foundational skills necessary to be effective health educators in their careers. Areas of study will include: evaluating individual and community health needs; planning, implementing, and managing health education strategies; comparing health education interventions; evaluating health education programs; and communicating health education messages. The course will include lecture with group discussion. Students will apply these concepts through the semester to a project on a health education topic of interest.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): HSCI 055
Corequisite(s): None
Restrictions:
Enrollment is limited to students with an major in HealthSci: Clinical & Applied, HealthSci: Health Care Admin, HealthSci: Health Services Mgt, Health Sci: Pharm Sciences or HealthSci: Public Health.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 143. INTRODUCTION TO EPIDEMIOLOGY. (3 Credits)
Epidemiology is the basic science of public health and studies the health events with groups in a population. Introduction to Epidemiology is an examination of the foundation of this science including infectious and chronic disease, environmental health, social, and occupational epidemiology. We will examine the questions of ""who"", ""what"", ""where"", and ""when"" while introducing the practical application of basic epidemiologic concepts to establish ""how"" and ""why"". Epidemiologic data drives public health decision-making and aids in developing interventions to control and prevent health problems without the constraint of geographic borders. Therefore, these concepts will be explored in a global context. The course will progress through four sections of the core concepts of epidemiology including 1) introduction 2) rates, significance, accuracy 3) study designs and causality 4) applied epidemiology. The first lecture each week will focus on epidemiologic concepts. The second lecture each week will be used to apply concepts to a focus area. The topics are as follows: infectious disease, environmental and occupational, cancer and other chronic disease and clinical epidemiology. Readings in the two primary textbooks must be completed prior to the first lecture of each week. Supplemental readings should be completed prior to the second lecture of each week.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Enrollment is limited to Professional Health Care or Undergraduate level students.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 144. INTRODUCTION TO PUBLIC HEALTH. (3 Credits)
This will serve as a foundational course for students seeking to complete the concentration in Global and Comparative Public Health. It will also be of interest to students who simply want to be more informed about a system that affects them daily or who are exploring career or personal service options to work in the developing world. The course will also serve to familiarize students interested in pursuing a Master of Public Health degree with what they may expect in their graduate studies. We will explore both the US and foreign public health systems. We will look at: (1) Public Health - its history, what it is and how it may be defined; (2) Epidemiology - how we measure, prevent and treat disease; (3) Social and Cultural Aspects of Health - looking at the causes behind the causes of health and disease. Unhealthy diets may cause heart disease, but something else usually causes that unhealthy diet; (4) Health Systems - comparing how the health care systems in the US and other countries work; (5) Health in the Developing World - common diseases, foreign aid and aid agencies, health and development, working or volunteering in the developing world. Students should expect to disagree (politely and professionally of course!) at times with the readings, the instructor and each other. Problems, their causes and their solutions in public health are complex, rarely obvious, sometimes counter-intuitive and often influenced by politics and competing political ideologies.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 146. HUMAN DEVELOPMENT ACROSS THE LIFESPAN. (3 Credits)
This course will introduce students to the concepts and science of human development and the changes in development that occur across the life span from conception through death focusing on the physical, cognitive, and socioemotional changes that occur as individuals grow and develop. In addition, this class will introduce students to the major theoretical perspectives associated with human development, incorporate topics into ""real world"" examples, and present a contextual perspective of human development.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): PSY 001
Corequisite(s): None
Restrictions:
Students with a classification of Freshman may **not** enroll.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 147. INTERNATIONAL HEALTH TOPICS. (3 Credits)
This special topics course combines international internship and service learning experiences with pre and post readings, discussions, and reflections in order to maximize student learning, increase student awareness of cultural issues, and increase personal growth related to working in a developing country. Student will build skills in life-long learning, values and ethics, critical thinking, communication and collaboration.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Internship, Web Instructed
Area(s) of Inquiry: Global and Cultural Understand

HSCI 148. EXERCISE TEST AND PRESCRIPTION. (3 Credits)
The purpose of this course it to provide the opportunity to utilize state of the art laboratory equipment and techniques to learn the concepts of physiological fitness testing and exercise prescription. Exercise prescription and the implementation of conditioning programs will include individuals of differing ages, fitness levels, and health status. Emphasis is on the five major health-related components of physical fitness: [1] cardiorespiratory fitness, [2] muscular strength, [3] muscular endurance, [4] flexibility, and [5] body composition. The course will include hands-on exercise testing using class members, interpretation of test results, and effective design of exercise programs [i.e. prescriptions].
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: Life Science

HSCI 149. INTRODUCTION TO ATHLETIC TRAINING AND SPORTS MEDICINE. (3 Credits)
This is an introductory lecture course with a lab included. The course will allow students to acquire the skills to recognize common injuries, illnesses and issues occurring in an athletic environment. The lab portion of the class will provide a hands-on approach to prevention and rehabilitation techniques including taping, therapeutic exercise and modalities.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): BIO 012 and BIO 013
Corequisite(s): None
Restrictions:
Students with a classification of Freshman may **not** enroll.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 150. SPECIAL TOPICS. (1-3 Credits)
Elective initial offerings. Course titles vary. Please refer to each specific course offering for a complete course description.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Enrollment limited to students in the Pharmacy & Health Sciences college.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture
Area(s) of Inquiry: None

HSCI 151. TOXICOLOGY: THE STUDY OF POISONS. (3 Credits)
This is an introductory course to the broader field of toxicology. The course will provide a basic overview of the science of toxicology; explore how toxicology impacts society and our daily lives; and how the science of toxicology drives regulatory policies. The format of this course will include lectures, student-led presentations and discussions.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): (BIO 012 and (BIO 013 and (CHEM 001 and (CHEM 003 and (CHEM 002 and (CHEM 004 and (CHEM 097
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 153. HEALTH AND DEVELOPMENT. (3 Credits)
Certainly, a desire to ""give back"" and help make the world a better place is a noble ambition. Unfortunately, the road to perdition is paved with such good intentions. The data is clear that health and development aid can do harm as well as good. In this course, we will explore why countries are poor, what can be done to alleviate their poverty, and some of the results of health and development aid schemes. This is a reading and discussion intensive type course that will familiarize students with current theories, and controversies in health and development. Working in this area is not easy. Idealists and do-gooders burn out quickly. Having an awareness of the major issues in development will assist you in being as effective as possible in your volunteer work or career as an aid worker. It will also make you a better informed citizen and voter. If you finish the course more confused than when you started it, that simply means you now understand how complex health and development aid actually is.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: Global and Cultural Understand

HSCI 154. EXPERIENCES IN HEALTH SCIENCES. (3 Credits)
COURSE PRE-REQUISITE/REGISTRATION INFO: Students wishing to register for the course without meeting the specific pre-requisite requirements must contact the designated Instructor of Record for approval. COURSE DESCRIPTION: The purpose of this course is to allow students to gain real world experiences in the health sciences working with healthcare or other health sciences professionals throughout the semester on meaningful tasks and projects. The health sciences student will complete 112.5 experiential hours for preceptors and complete additional assignments for the course instructor that focus on reflective practices, critical thinking, and project development. Prior to starting the course, students must show proof of immunizations [Hepatitis B Series, Tdap, 2 MMR, Influenza Vaccine, PPD: TB Skin test and proof of chicken pox infection or the vaccine.] COURSE MEETING TIMES: TBA
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): PHAR 125 or BIO 129 or HSCI 125
Corequisite(s): None
Restrictions:
Enrollment limited to students in the Pharmacy & Health Sciences college.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Web Instructed
Area(s) of Inquiry: None

HSCI 155. GUIDED RESEARCH I. (2 Credits)
This course, in conjunction with the internship, will form the didactic component of the capstone experience. Students will complete the process of writing, documenting and presenting the work associated with the internship. Course activities will include exploration of individual and organizational leadership in health care, review of literature/articles, and submission of a project idea and outline.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): HSCI 172 or HSCI 196
Corequisite(s): HSCI 196
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 156. GUIDED RESEARCH II. (2 Credits)
This course, in conjunction with the Internship in Health Sciences, will form the didactic component of the capstone experience. Students will complete the process of writing, documenting and presenting the work associated with the internship. Course activities will include exploration of individual and organizational leadership in health care, development of a manuscript aligning with their capstone experience, and presentation of a poster.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): HSCI 155
Corequisite(s): HSCI 197
Restrictions:
Enrollment limited to students with a classification of Senior.

Enrollment is limited to students with an major in HSCI: Clinical&Applied (HS-A), HealthSci: Clinical & Applied, HealthSci: Health Care Admin, HealthSci: HC Admin/Pub Hlth, HealthSci: Health Services Mgt, HSCI: Clinical&Applied (HS-O), HealthSci: Clinical & Medical or HealthSci: Public Health.

Enrollment is limited to Professional Health Care or Undergraduate level students.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 160. SURVEY OF EVIDENCED BASED HEALTHCARE. (3 Credits)
Survey of Evidenced Based Health Care is designed as a background and introductory course for the Evidence Based Medicine Certificate program. Although targeted to Athletic Training students the information presented is applicable to anyone who works in a health-care related field. Students will learn the definition of evidence-based health care (EBHC) and its history. Students will receive instruction in basic biostatistics and clinical trial design. They will learn how to read and critique the medical literature, including meta-analyses and systematic reviews. Students will learn how to discern misuse of the medical literature and how to apply the principles of EBHC to answer patient related health questions at the individual or system level. This online course will include online lectures, other online learning including videos, review and reading of medical literature including clinical studies. Evaluation will occur with online tests and quizzes as well as several assignments including answering drug information questions and other similar online assignments.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Enrollment limited to students with a classification of Senior.

Enrollment is limited to students with an major in HealthSci: Clinical & Applied, HealthSci: Health Care Admin, HealthSci: Health Services Mgt, HSCI: Clinical&Applied (HS-O) or HealthSci: Public Health.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Web Instructed
Area(s) of Inquiry: Information Literacy

HSCI 163. PHARMACOLOGY FOR FUTURE HEALTH PROFESSIONALS. (3 Credits)
The first portion of the course examines the basic principles of pharmacology that govern all drug classes. Topics included in this section of the class are receptor theory, enzymes, agonists/antagonists, bioavailability and distribution, drug metabolism and excretion, drug-drug interactions, pharmacogenetics, and toxicity. The second portion of the class will examine specific drug classes. Students in this section will integrate physiological, biochemical, and the pharmacologic principles examined in the first portion of this class to understand the actions of specific drugs affecting major organ systems.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): PHAR 125 or HSCI 125 or BIO 129
Corequisite(s): None
Restrictions:
Enrollment limited to students with a classification of Junior or Senior.

Enrollment is limited to students with an major in Biochem/Molecular Biology, Biology, Chemistry, HealthSci: Clinical & Applied, HealthSci: Health Care Admin, HealthSci: HC Admin/Pub Hlth, HealthSci: Health Services Mgt, HSCI: Clinical&Applied (HS-O), HealthSci: Public Health or Neuroscience.

Enrollment is limited to Undergraduate level students.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 164. TOPICS IN HEALTH SCIENCES. (1-4 Credits)
This Independent Study course offering provides an opportunity for students to participate in an undergraduate research or experience in a specific area of Health Sciences under the guidance and direction of a faculty member. Registration for this course must be pre-arranged with a faculty member and submitted for approval through the completion of an Independent Study form available in the College Dean's Office to the appropriate Department Chair and Associate Dean. In addition to approaching individual faculty members about opportunities in their areas of expertise, research/experience opportunities may also be available in Career bluePrint and the College of Pharmacy and Health Sciences Weekly Announcements.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Web Instructed
Area(s) of Inquiry: None

HSCI 165. TOPICS IN PHARMACOLOGY. (1-4 Credits)
This Independent Study course offering provides an opportunity for students to participate in an undergraduate research or experience in a specific area of Pharmacology under the guidance and direction of a faculty member. Registration for this course must be pre-arranged with a faculty member and submitted for approval through the completion of an Independent Study form available in the College Dean's Office to the appropriate Department Chair and Associate Dean. In addition to approaching individual faculty members about opportunities in their areas of expertise, research/experience opportunities may also be available in Career bluePrint and the College of Pharmacy and Health Sciences Weekly Announcements.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Web Instructed
Area(s) of Inquiry: None

HSCI 166. TOPICS IN PHARMACEUTICAL CHEMISTRY. (1-4 Credits)
This Independent Study course offering provides an opportunity for students to participate in an undergraduate research or experience in a specific area of Pharmaceutical Chemistry under the guidance and direction of a faculty member. Registration for this course must be pre-arranged with a faculty member and submitted for approval through the completion of an Independent Study form available in the College Dean's Office to the appropriate Department Chair and Associate Dean. In addition to approaching individual faculty members about opportunities in their areas of expertise, research/experience opportunities may also be available in Career bluePrint and the College of Pharmacy and Health Sciences Weekly Announcements.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Web Instructed
Area(s) of Inquiry: None

HSCI 172. EVALUATING RESEARCH. (3 Credits)
This course is designed to integrate and apply principles of research-design, statistics, and health information to critically appraise medical and health sciences research literature to enable translation into scientific investigation, clinical practice or policy administration. The course will use a traditional lecture format to convey basic principles that are essential to understanding and evaluating medical and health sciences research literature. To supplement the required course textbook readings and lecture material, students may compile a portfolio of web-based resources and literature related to research-design, statistics, and health information to assist in their evaluation of primary literature. Traditional lecture will be enhanced by the use of specific literature examples for which the student will be required to review prior to class to facilitate discussion. Academic performance will be assessed using traditional written exams as well as regularly scheduled individual and group exercises. Students will be required to complete a project that demonstrates mastery of both navigating electronic literature databases and how to ethically use and apply scientific literature using citations within a review of research-based literature on an approved topic of their choice.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): STAT 060 or STAT 072 or HSCI 060
Corequisite(s): None
Restrictions:
Enrollment is limited to students with an major in HSCI: Clinical&Applied (HS-A), HealthSci: Clinical & Applied, HealthSci: Health Care Admin, HealthSci: HC Admin/Pub Hlth, HealthSci: Health Services Mgt, HSCI: Clinical&Applied (HS-O), Health Sci: Pharm Sciences, HealthSci: Public Health or Pre-Pharmacy.

Enrollment is limited to Undergraduate level students.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: Information Literacy

HSCI 180. PUBLIC HEALTH PROGRAMMING I. (3 Credits)
If Public Health professionals hope to provide programs that prevent or address health related problems, it will first be necessary to identify what those problems are. Learners will become familiar with all the steps of the planning process: identifying a community to work with; data collection and analysis; setting goals and objectives; developing an appropriate intervention; and creating a monitoring program for their intervention. This course format is in-class lecture and group work and some fieldwork. Assessment methods will include student presentations, brief writing assignments, and a major project.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Enrollment limited to students with a classification of Junior, Sophomore or Senior.

Enrollment is limited to students with an major in HealthSci: Public Health.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 181. HEALTH COMM & ADVOCACY. (3 Credits)
This course will study applied health communication strategies that inform individual and community decision-making aimed at enhancing health. It also embeds the role of advocacy by incorporating social networking and mobilization, interpersonal communication and negotiation, as well as the use of earned media and social platforms for generating public discourse. The course will include lecture with group discussion on current topics and case studies. Students will apply the fundamental health communications and advocacy concepts through completion of module activities, assignments, and group projects.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Enrollment limited to students with a classification of Junior, Sophomore or Senior.

Enrollment is limited to students with an area(s) of study in HSCI: Clinical&Applied (HS-A), HealthSci: Clinical & Applied, HealthSci: Health Care Admin, HealthSci: HC Admin/Pub Hlth, HealthSci: Health Services Mgt, HSCI: Clinical&Applied (HS-O), Health Sci: Pharm Sciences, HSCI: Clinical&Applied (PPHR), HealthSci: Clinical & Medical or HealthSci: Public Health.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: Artistic Literacy

HSCI 182. PUB HEALTH PROG 2: IMPL & EVAL. (3 Credits)
Careful planning and evaluation of public health programs are essential competencies for public health professionals. This course will provide students with a basic understanding of how to implement public health programs and evaluate their effectiveness. As this course is designed to be grounded in public health practice, students will complete the course with the skills necessary to develop both a program and evaluation plan. The course will include lecture with group discussion on current topics and the development of a health promotion program for a specific community partner. Students will apply the fundamental public health program implementation and evaluation concepts through completion of module activities, assignments, and group projects.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): HSCI 180
Corequisite(s): None
Restrictions:
Enrollment limited to students with a classification of Junior or Senior.

Enrollment is limited to students with an major in HSCI: Clinical&Applied (HS-A), HealthSci: Clinical & Applied, HealthSci: Health Care Admin, HealthSci: HC Admin/Pub Hlth, HSCI: Clinical&Applied (HS-O), HSCI: Clinical&Applied (PPHR), HealthSci: Clinical & Medical, HealthSci: Public Health, HSCI: Clinical&Medical (HSAT), Health Sciences, HSCI: Clinical&Medical (HSOT) or HSCI: Clinical&Medical (PPHR).

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 196. HEALTH SCIENCES INTERNSHIP I. (1-3 Credits)
COURSE DESCRIPTION: This course, the first of a two-term experiential sequence, is a component of the required Health Sciences Senior Capstone Experience. The purpose of this course is to provide students experiential opportunities related to health sciences issues and careers in their chosen pathway. Students will complete focused learning opportunities with preceptors on projects related to healthcare or other health sciences fields. Learning components include active learning site time, reflective communication, assessments, and documentation consistent with an experiential course. COURSE REQUIREMENTS: Must be a Health Sciences student in their senior year or otherwise approved by the Director of Health Sciences Experiential Education. All students must be up to date on adult, pediatric, and infant cardiopulmonary resuscitation [CPR], blood borne pathogen training, and HIPAA training prior to the start of the experience. All students are required to have completed the following immunizations prior to the start of the Senior Experience 196 course -- Series of Hepatitis B Vaccine, Tdap, 2 MMR, Influenza Vaccine; PPD: TB skin test and proof of Chicken Pox Infection or Vaccine.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): HSCI 020 and HSCI 025 and HSCI 055 and HSCI 105
Corequisite(s): HSCI 155
Restrictions:
Enrollment limited to students with a classification of Senior.

Enrollment is limited to students with an major in HSCI: Clinical&Applied (HS-A), HealthSci: Clinical & Applied, HealthSci: Health Care Admin, HealthSci: HC Admin/Pub Hlth, HealthSci: Health Services Mgt, HSCI: Clinical&Applied (HS-O), Health Sci: Pharm Sciences or HealthSci: Public Health.

Enrollment is limited to Undergraduate level students.

Enrollment limited to students in the Pharmacy & Health Sciences college.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Web Instructed
Area(s) of Inquiry: None

HSCI 197. HEALTH SCIENCES INTERNSHIP II. (1-3 Credits)
COURSE DESCRIPTION: This course, the second of a two-term experiential sequence, is a component of the required Health Sciences Senior Capstone Experience. The purpose of this course is to provide students experiential opportunities related to health science issues and careers in their chosen pathway. Students will complete focused learning opportunities with preceptors on projects related to healthcare or other health sciences fields. Learning components include active learning site time, reflective communication, assessments, and documentation consistent with an experiential course. COURSE REQUIREMENTS: Must be a Health Sciences student in their senior year or otherwise approved by the Director of Health Sciences Experiential Education. All students must be up to date on adult, pediatric, and infant cardiopulmonary resuscitation [CPR], blood borne pathogen training, and HIPAA training prior to the start of the experience. All students are required to have completed the following immunizations prior to the start of the Senior Experience 196 course: Series of Hepatitis B Vaccine, Tdap, 2 MMR, Influenza Vaccine; PPD: TB skin test and proof of Chicken Pox Infection or Vaccine.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): HSCI 196
Corequisite(s): HSCI 156
Restrictions:
Enrollment limited to students with a classification of Senior.

Enrollment is limited to students with an major in HSCI: Clinical&Applied (HS-A), HealthSci: Clinical & Applied, HealthSci: Health Care Admin, HealthSci: HC Admin/Pub Hlth, HealthSci: Health Services Mgt, HSCI: Clinical&Applied (HS-O), HealthSci: Clinical & Medical or HealthSci: Public Health.

Enrollment is limited to Undergraduate level students.

Enrollment limited to students in the Pharmacy & Health Sciences college.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Web Instructed
Area(s) of Inquiry: None

HSCI 201. INTRODUCTION TO HEALTH INFORMATICS. (3 Credits)
This course provides an overview of the roles of informatics and analytics within a health care organization. Various aspects of health informatics, which represents the convergence of information technology, information management, and health care, will be explored, including electronic health records, data standards and interoperability, clinical decision support, and healthcare data analytics. The knowledge and skills presented in this course will offer students a framework for deeper understanding of the concepts in subsequent coursework.
Level: Graduate, Professional Health Care
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Students with a classification of Freshman, Junior or Sophomore may **not** enroll.

Enrollment is limited to students with an major in Athletic Training, Health Informatics & Analytics, HealthSci: Clinical & Applied, HealthSci: Health Care Admin, HealthSci: Health Services Mgt, HealthSci: Public Health, Occupational Therapy Doctorate or Pharmacy.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Web Instructed
Area(s) of Inquiry: None

HSCI 241. HUMAN ANATOMY. (3 Credits)
This course includes the study of the gross anatomy of the human body. The course begins with teachings of the basic cell structure and tissue levels of organization. Other lecture areas include the study of the integumentary system, axial and appendicular skeletons, muscular system, nervous system, as well as other organ systems of the body.
Level: Graduate
Prerequisite(s): None
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Web Instructed
Area(s) of Inquiry: None

HSCI 260. SURVEY OF EVIDENCE BASED HEALTHCARE. (3 Credits)
Survey of Evidenced Based Health Care is designed as a background and introductory course for the Evidence Based Medicine Certificate program. The information presented is applicable to anyone who works in a health-care related field. Students will receive instruction in basic biostatistics and clinical trial design. They will learn how to read and critique the medical literature, including meta-analyses and systematic reviews. Students will learn how to discern misuse of the medical literature and how to apply the principles of EBHC to answer patient related health question at the individual or system level. This online course will include online lectures, other online learning including videos, review and reading of medical literature including clinical studies Evaluation will occur with online tests and quizzes as well as several assignments including answering drug information questions and other similar online assignments.
Level: Graduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Students with a classification of Freshman, Junior or Sophomore may **not** enroll.

Enrollment is limited to students with an major in Athletic Training, Evidence Based Health Care, Health Informatics & Analytics, HealthSci: Clinical & Applied, HealthSci: Health Care Admin, HealthSci: Health Services Mgt, HealthSci: Public Health or Pharmacy.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Web Instructed
Area(s) of Inquiry: None

HSCI 261. REVIEW OF STATISTICS FOR EVIDENCE BASED HEALTHCARE. (3 Credits)
Review of Statistics for Evidenced-Based Healthcare is a course designed to provide a background and introduction to statistical concepts used in published research and is a part of the Evidence-Based Medicine Certificate program. Information presented in the course is applicable to anyone who works in a healthcare related field desiring to better understand research. Moreover, students will learn about general analytic approaches used in evidence-based health care (EBHC) and associated concepts. Students will receive instruction on basic (bio)statistics, trial design, and sources of bias. The course will be delivered online as part of the Evidence Based Health Care Certification.
Level: Graduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Students with a classification of Freshman, Junior or Sophomore may **not** enroll.

Enrollment is limited to students with an major in Athletic Training, Evidence Based Health Care, Health Informatics & Analytics, HSCI: Clinical&Applied (HS-A), HealthSci: Clinical & Applied, HealthSci: Health Care Admin, HealthSci: HC Admin/Pub Hlth, HealthSci: Health Services Mgt, HSCI: Clinical&Applied (HS-O), HealthSci: Public Health, Occupational Therapy Doctorate or Pharmacy.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Web Instructed
Area(s) of Inquiry: None

HSCI 262. CRITICAL APPRAISAL IN EVIDENCE BASED HEALTH CARE. (3 Credits)
Systematic summaries of the literature are an informative means to synthesize a body of research and identify possible explanations for results that differ across studies within a topic. The course aims to provide health-care professionals with a structured training in designing, conducting, and and interpreting high-quality systematic reviews in health care. Student will develop sufficient skills to conduct systematic reviews independently.
Level: Graduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Enrollment is limited to students with an area(s) of study in Health Informatics & Analytics.

Undergraduate level students may **not** enroll.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Web Instructed
Area(s) of Inquiry: None

HSCI 263. PHARMACOLOGY FOR FUTURE HEALTH PROFESSIONS. (3 Credits)
The first portion of the course examines the basic principles of pharmacology that govern all drug classes. Topics included in this section of the class are receptor theory, enzymes, agonists/antagonists/inverse agonists/antagonists/inverse agonists/inhibitors, bioavailability and distribution, drug metabolism and excretion, drug-drug interactions, pharmacogenetics, and toxicity. The second portion of the class will examine specific drug classes. In this section, students will integrate physiological, biochemical, and the pharmacologic principles examined in the first portion of this class to understand the actions of specific drugs affecting major organ systems.
Level: Professional Health Care
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Enrollment limited to students with a classification of First Year Athletic Training.

Enrollment is limited to students with an major in Athletic Training.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

HSCI 270. PRACTICUM IN EVIDENCE BASED HEALTHCARE. (1 Credit)
This course will allow you to implement the basic concepts and skills of evidence-based health care. Students will turn clinical queries into a focused question, from which they can search the evidence. Students will either address a question through their own health care practice or be matched with a health care provider in their area of health care interest. They will have the opportunity to decide on a relevant question, search the evidence, present a critical appraisal of the question, and propose translation of the evidence into practice. This practicum is the final part of the Evidence-Based Healthcare Certification.
Level: Graduate
Prerequisite(s): HSCI 260 and HSCI 261 and HSCI 262
Corequisite(s): None
Restrictions:
Enrollment is limited to students with an major in Athletic Training, Evidence Based Health Care, Occupational Therapy Doctorate or Pharmacy.

Undergraduate level students may **not** enroll.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Web Instructed
Area(s) of Inquiry: None

HSCI 285. HI & ANALYTICS CAPSTONE PROJ. (3 Credits)
This course provides an opportunity to apply the knowledge and skills learned in the Drake University Master of Science in Health Informatics and Analytics (MS HIA) program to complete a project that addresses a real-life health informatics and analytics problem at a healthcare organization or related organization in the community. The capstone course will provide a hands-on experience in which students will work in a professional environment under the supervision of a mentor with health informatics, analytics, or related experience, and with the guidance of a Drake faculty member. Upon successfully completing this course, the student will be able to: • Apply concepts and skills learned in the MS HIA coursework to practical healthcare settings. • Practice effective communication skills by working directly in a healthcare organization or business. • Directly impact a problem or challenge within a healthcare organization through the application of data-driven analyses and solutions. Additional goals and objectives may be developed depending on the setting and specific project. The first week will be dedicated to the development and submission of the capstone project proposal. The next four weeks will focus on the implementation and completion of the project in regular consultation with the project mentor and capstone faculty advisor. The final week will be dedicated to the completion of a paper related to the project and a final presentation to the mentor, faculty advisor, and any other project stakeholders, as appropriate.
Level: Graduate
Prerequisite(s): (HSCI 201 and (HSCI 260 and (IS 231 and (STAT 240 and (HLTH 264 or HLTH 266)
Corequisite(s): None
Restrictions:
Enrollment limited to students in the PH_HIA_MS program.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Web Instructed
Area(s) of Inquiry: None