HEALTHCARE SCIENCES (HCS)

HCS 202. Introductory Statistics in Health Care. 3 Credit Hours.
Application of descriptive and inferential statistics. Principles and methods of summarizing data including tables, graphs, percentile ranks, central tendency, variability, normal distribution. Basic concepts of probability, hypothesis testing, and analysis of variance. Examples and problems from nursing, health sciences and public health.
Corequisite: MTH 101. Or Requisite: ALEKS > or = 55 or SAT Score > or = 630 or ACT > or = 28.
Components: LEC.
Grading: GRD.
Typically Offered: Fall & Spring.

HCS 207. Introduction to Pharmacology. 3 Credit Hours.
Introduction to the basic principles of therapeutic pharmacology. Special consideration of cultural beliefs and folk medicine included. Emphasis is on the understanding of the different classes of drugs and their application in various health care settings.
Prerequisites: BIL 150, CHM 103 or CHM 111, HCS 212, and HCS 215.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

HCS 212. Human Anatomy. 3 Credit Hours.
Emphasis is on the understanding of the anatomical compartments of the human body and the ability to identify the bony skeleton, musculatures, blood vessels and internal organs of each compartment.
Prerequisite: BIL 150.
Components: LEC.
Grading: GRD.
Typically Offered: Fall & Spring.

HCS 213. Human Anatomy Laboratory. 1 Credit Hour.
Laboratory to accompany HCS 212.
Prerequisite: HCS 212. Or Corequisite: HCS 212.
Components: LAB.
Grading: GRD.
Typically Offered: Fall & Spring.

HCS 215. Principles of Systemic Physiology. 3 Credit Hours.
Emphasis is on the understanding of the Physiology and selected Pathophysiology of various organs and systems.
Prerequisites: HCS 212, CHM 111, CHM 113 or CHM 103, CHM 105. Or Corequisites: CHM 111, CHM 113 or CHM 103, CHM 105.
Components: LEC.
Grading: GRD.
Typically Offered: Fall & Spring.

HCS 216. Principles of Systemic Physiology Laboratory. 1 Credit Hour.
Laboratory to accompany HCS 215
Prerequisite: HCS 215. Or Corequisite: HCS 215.
Components: LAB.
Grading: GRD.
Typically Offered: Fall & Spring.

HCS 216. Principles of Systemic Physiology Laboratory. 1 Credit Hour.
Laboratory to accompany HCS 215
Prerequisite: HCS 215. Or Corequisite: HCS 215.
Components: LAB.
Grading: GRD.
Typically Offered: Fall & Spring.

HCS 202. Introductory Statistics in Health Care. 3 Credit Hours.
Application of descriptive and inferential statistics. Principles and methods of summarizing data including tables, graphs, percentile ranks, central tendency, variability, normal distribution. Basic concepts of probability, hypothesis testing, and analysis of variance. Examples and problems from nursing, health sciences and public health.
Corequisite: MTH 101. Or Requisite: ALEKS > or = 55 or SAT Score > or = 630 or ACT > or = 28.
Components: LEC.
Grading: GRD.
Typically Offered: Fall & Spring.

HCS 207. Introduction to Pharmacology. 3 Credit Hours.
Introduction to the basic principles of therapeutic pharmacology. Special consideration of cultural beliefs and folk medicine included. Emphasis is on the understanding of the different classes of drugs and their application in various health care settings.
Prerequisites: BIL 150, CHM 103 or CHM 111, HCS 212, and HCS 215.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

HCS 352. Biological Principles Of Public Health. 3 Credit Hours.
This course examines the biological basis and pathogenesis of diseases from a public health perspective and describes the impact on populations. This course also presents the basic scientific and biomedical concepts of modern public health problems and explores in depth mechanisms and models of the major categories of disease. The biologic principles presented in this course are foundations to developing and implementing public health disease prevention, control, or management programs.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

HCS 355. Global Nutrition. 3 Credit Hours.
This course examines nutrition related public health issues in the global setting. Nutrition related morbidity and mortality, etiologic factors, and population-focused strategies to address these issues are covered. Food relief and nutrition policies and programs at the local, national and international levels are examined. Current scientific research in international nutrition is reviewed from an epidemiological perspective.
Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

HCS 402. Global Health Disparities Research. 3 Credit Hours.
This is a 4 week intensive educational experience that prepares students to be successful conducting supervised health disparities research as part of the MHIRT program at a foreign institution, disseminating findings, and applying to graduate school. The training program is broken into a preparation phase (3 weeks prior to leaving to their host country), and a dissemination phase (1 week after they return). Students will be working as a research assistant at a foreign site for eight weeks in between the preparation and dissemination phases of this training program. Students will learn about the influence of culture and healthcare policy on health and health disparities, research design, statistics, communicating research findings and careers in health disparities research.
Components: LEC.
Grading: GRD.
Typically Offered: Summer.

HCS 461. Health Disparities Research Practicum. 1-4 Credit Hours.
This course is designed to provide opportunities for students across all levels of higher education to participate in health disparities research. Students will be mentored by a health disparities researcher with an active research project. Objectives will be established by the research mentor and the student according to educational level, interests and opportunities. Students will be incorporated into the research team and expected to attend project meetings. They will also be expected to participate in scholarly work that could contribute to the success of the project. Examples of scholarly work include co-authoring research papers and presentations, developing recruitment materials, assisting in compiling-developing data collection measures, or any other product deemed appropriate by the mentor.
Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.
HCS 465. Public Health Statistics And Data Management. 3 Credit Hours.
This course is designed to give students an opportunity to apply basic
principles of statistics and data management in public health. Students
will learn to use statistical techniques to answer questions relating to
the morbidity and mortality of health conditions and the efficacy and
effectiveness of public health interventions.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

HCS 487. Global Health Practicum. 3 Credit Hours.
Collaborative clinical venture between UM/SON and an International
School of Nursing. Students will exchange supervised western clinical
experiences, knowledge and skills for the care of clients and families
in specialty areas, including MedSurg, Surgery, ICU and/or Emergency
nursing units. Students will apply and synthesize basic science
knowledge and skills that foster ethical, legal and culturally specific
health care.
Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

HCS 499. Selected Topics. 6.00 Credit Hours.
Components: LEC.
Grading: GRD.
Typically Offered: Fall, Spring, & Summer.

HCS 600. Public Health Information. 3 Credit Hours.
Components: LEC.
Grading: GRD.
Typically Offered: Summer.

HCS 601. Legal, Ethical And Regulatory Issues In Health Informatics. 3
Credit Hours.
Components: LEC.
Grading: GRD.
Typically Offered: Spring.

HCS 603. Healthcare Databases: Design, Development And Clinical
Application. 3 Credit Hours.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

HCS 604. System Life Cycle/Project Management. 3 Credit Hours.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

HCS 605. Health Information Exchange. 3 Credit Hours.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

HCS 608. Information Security. 3 Credit Hours.
Components: LEC.
Grading: GRD.
Typically Offered: Spring.

HCS 609. Research Methods And Applications For Health Informatics. 3
Credit Hours.
Components: LEC.
Grading: GRD.
Typically Offered: Summer.