

# COURSE DESCRIPTIONS

- Anesthesiology (ANES) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/anes/>)
- Biochemistry (BIOC) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/bioc/>)
- Biomedical Engineering (BIME) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/bime/>)
- Cardiothoracic Surgery (CTSR) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/ctsr/>)
- Cell Systems and Anatomy (CSAT) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/csat/>)
- Circle (CIRC) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/circ/>)
- Community Dentistry (COMD) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/comd/>)
- Deaf Educ & Hearing Science (DEHS) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/dehs/>)
- Dental Clinical Specialty Foundations (DCSF) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/dcsf/>)
- Dental Diagnostic Science (DIAG) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/diag/>)
- Dental Hygiene (DENH) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/denh/>)
- Dental Public Health (PBHL) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/pbhl/>)
- Dental Science (MSDS) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/msds/>)
- Emergency Health Sciences (EMSP) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/emsp/>)
- Emergency Medicine (EMED) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/emed/>)
- Endodontics (ENDO) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/endo/>)
- Enrichment Elective (ELEC) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/elec/>)
- Family Medicine (FMED) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/fmed/>)
- Foundations of Restorative Dentistry (DFRD) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/dfrd/>)
- General Dentistry (GEND) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/gend/>)
- Health Sciences (HSCI) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/hsci/>)
- Human Health and Disease (DHHD) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/dhhd/>)
- Imaging Sciences (MSIS) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/msis/>)
- Integrated Biomedical Sciences (IBMS) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/ibms/>)
- Interdisciplinary Course (INTD) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/intd/>)
- International Dentistry Program (IDEP) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/idep/>)
- Introduction to Patient Care (DIPC) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/dipc/>)

- Medical Laboratory Sciences (MLSC) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/mlsc/>)
- Medical Sciences (BSMS) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/bsms/>)
- Medicine (MEDI) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/medi/>)
- Microbiology (MICR) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/micr/>)
- Molecular Medicine (MMED) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/mmed/>)
- Neurology (NEUR) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/neur/>)
- Neurosurgery (NRSR) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/nrsr/>)
- Nursing (NURS) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/nurs/>)
- Nursing Elective (NURE) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/nure/>)
- Obstetrics & Gynecology (OBGY) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/obgy/>)
- Occupational Therapy (OCCT) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/occt/>)
- Ophthalmology (OPHT) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/opht/>)
- Oral Surgery (OSUR) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/osur/>)
- Orthodontics (ORTH) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/orth/>)
- Orthopedics (ORTO) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/orto/>)
- Otolaryngology (OTOL) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/otol/>)
- Pathology (PATH) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/path/>)
- Pediatric Dentistry (PEDO) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/pedo/>)
- Pediatrics (PEDI) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/pedi/>)
- Periodontics (PERI) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/peri/>)
- Pharmacology (PHAR) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/phar/>)
- Physical Therapy (PHYT) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/phyt/>)
- Physician Assistant (PHAS) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/phas/>)
- Physiology (PHYL) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/phyl/>)
- Prosthodontics (PROS) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/pros/>)
- Psychiatry (PSYC) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/psyc/>)
- Public Health (PHEA) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/phea/>)
- Radiation Oncology (RADO) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/rado/>)

- Radiology (RAD1) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/radi/>)
- Rehabilitation Medicine (REHB) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/rehb/>)
- Respiratory Care (RESC) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/resc/>)
- Restorative Dentistry (RESD) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/resd/>)
- Selective (SELC) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/selc/>)
- Speech Language Pathology (MSLP) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/mslp/>)
- Surgery (SURG) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/surg/>)
- Translational Science Clinical Investigation (TSCI) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/tsci/>)
- Urology (UROL) (<http://catalog.uthscsa.edu/generalinformation/coursedescriptions/urol/>)

## Courses

### **HSCI 7001. Foundation of Education. 3 Credit Hours.**

This course will review models of learning theory as they relate to higher education, professional education and adult and career continuing education contexts, as well as application of learning theory to teaching methods and evaluation. Various learning theories will be introduced, to include behavioral, cognitive and constructive theory, motivation and newer theories of learning based in cognitive science.

### **HSCI 7002. Curriculum and Instruction. 3 Credit Hours.**

This course provides hands-on experience with developing competency-based curricula for health science education programs. Program development, needs assessment, goals, course construction and sequencing, course descriptions, objectives, outlines, syllabi, content and outcomes assessment and evaluation for specific learning audiences will be described.

### **HSCI 7003. Methods and Evaluation. 3 Credit Hours.**

A comprehensive review of various teaching methods and learning outcome evaluation techniques. Topics included are developing and implementing course goals, objectives, learning activities, lesson plans, synchronous and asynchronous learning platforms, evaluation methods, test construction, and course and program evaluation. Psychometric measures and interpretation including item analysis and descriptive statistics are included.

### **HSCI 7004. Teaching Practicum. 3 Credit Hours.**

Graduate students will engage in one or more of a variety of interrelated teaching activities – lecturing, class discussion, one-to-one tutoring, office hours, and grading in the various specialty and core curriculum under the direct supervision of a faculty member. Students will also be required to complete didactic assignments related to curriculum design, presentation and evaluation.

### **HSCI 7091. Selected Topics in Health Sciences. 1-9 Credit Hours.**

This course is an independent study of topics of current interest in health sciences. Includes study of current research and important new developments in specific areas of practice and research. Can be repeated for up to 9 credit hours.

### **HSCI 7101. Research Design I. 3 Credit Hours.**

This course introduces students to methods of scientific research to include review of literature, research designs, sampling techniques, measurement, and related issues. Research articles and research thesis that exemplify various research designs, presentation of results, and conclusions will be reviewed and discussed. Students will further develop their information literacy skills to search, interpret and evaluate the medical literature in order to maintain critical, current and operational knowledge of new medical findings including its application to individualized patient care.

### **HSCI 7102. Research Design II. 3 Credit Hours.**

This course introduces the student to methods of research using qualitative design and appropriate statistical analysis techniques used in qualitative data analysis. Questionnaire and survey construction, validation and statistical analysis techniques will be discussed. Advantages and disadvantages of interview data collection techniques as well as techniques such as Delphi are included.

### **HSCI 7103. Statistics I. 3 Credit Hours.**

This course will focus on concepts and procedures for descriptive and inferential statistics for continuous and discrete data and data analysis using parametric and nonparametric statistical procedures. Computerized statistical programs, such as SPSS, will be used. Instruction on information literacy to equip students with the necessary skills to search, interpret and evaluate the medical literature in order to maintain critical, current and operational knowledge of new medical findings including its application to individualized patient care will be included.

### **HSCI 7104. Statistics II. 3 Credit Hours.**

This course will be a continuation of HSC 612: Introduction to Biostatistics. Hypothesis testing techniques which involve observation and analysis of more than one statistical variable at a time will be discussed. Examples include ANOVA, ANCOVA, MANOVA, MANCOVA, T-tests, and regression models.

### **HSCI 7105. Introduction to Grantsmanship. 2 Credit Hours.**

This course is designed to provide the practical aspects of proposal submission. In addition to covering basic writing skills, it addresses specific elements that should be included in each of the various sections of federal grants, foundation applications, and biotech contracts. In addition, it talks about ways of identifying sources for funding, a survey of the NIH landscape and how to prepare budgets. The online submission process is also reviewed.

### **HSCI 7106. Research Seminar 1. 1 Credit Hour.**

This course begins the first part in planning and conducting the required dissertation research project. Students are expected to begin to formulate their research question(s) to include background and significance, problem and purpose statement, need for the study, assumptions, limitations, and definitions. Students will also complete their review of the literature in preparation for their preliminary research proposal defense.

### **HSCI 7107. Research Seminar 2. 1 Credit Hour.**

Continuation of Research Project I. Students will continue planning and conducting the required dissertation research project. Students are expected to begin to formulate their research methods and procedures and complete preparation for their research proposal defense.

**HSCI 7201. Leadership Theory. 3 Credit Hours.**

Provides an overview of evidence-based methods for evaluating and developing leaders and leadership. Topics include: the history of leadership assessment and leadership theory; use of validated assessment methods in measuring leadership (e.g. interviews, assessment centers, and cognitive and objective assessments); applications of adult development and career development theory; and organizational approaches to leadership development (e.g. talent reviews, developmental assignments, 360-degree feedback, and succession/acceleration programs.).

**HSCI 7202. Issues and Trends in Health Care. 3 Credit Hours.**

Current issues and trends in health care are discussed. An overview of the United States health care system, its history, structure, major components and overall performance is provided, followed by a review of the interrelationships among various trends and forces that are likely to shape the roles and responsibilities of health care institutions in the future. Students become well versed in the major issues facing the health care industry and the public/private/individual roles needed to address these issues. Concepts in organizational behavior, health economics, health care finance, health care planning and marketing, and health insurance and managed care are discussed.

**HSCI 7203. Ethics in Clinical and Research Settings. 1 Credit Hour.**

This web based course provides the student with an interactive format to discuss the researcher's responsibilities for conducting ethically sound scientific research as well as select ethical issues in research. Each student will have the opportunity to analyze an ethical issue as it relates to the student's research project or topic.

**HSCI 7204. Management and Supervision. 3 Credit Hours.**

Principles of management and supervision as they relate to the organization and administration of health care facilities, higher education and the academic department will be discussed. Governance of higher education to include organization, control, funding, and evaluation will be described and the principles of management and supervision as they relate to the administration of the academic department will be discussed. Basic principles of management to include planning, organizing, directing and controlling, management and evaluation of personnel and programs, motivational theory, conflict management and principles of delegation will be covered.

**HSCI 7301. Education. 3 Credit Hours.**

This course is an introduction to basic principles and techniques used in education. Topics include course design, objectives, lesson-plan development, learning activities, use of media, development of presentations, testing, and evaluation.

**HSCI 7302. Research. 3 Credit Hours.**

This course addresses the skills in understanding and critiquing research reports. Principles and criteria for evaluating published research, including statistical analyses, issues of validity and evidence-based practice are discussed.

**HSCI 7303. Clinical Delivery. 3 Credit Hours.**

This course emphasizes basic clinical methods and skills for beginning graduate students with an emphasis on assessment and intervention. Clinical note-writing and documentation are modeled and discussed. Topic areas covered include various published and evidence-based clinical protocols and operational procedures in management.

**HSCI 7304. Dissertation. 2-9 Credit Hours.**

Students complete research in preparation of a dissertation in partial fulfillment of the requirements of the degree program. Includes supervision while student is writing the doctoral dissertation following all required course work. This is a pass/no pass course. Repeated until dissertation has been successfully defended. Prerequisites: Permission of program director.