

# COLLEGE OF PHARMACY AND HEALTH SCIENCES

## Mission

The mission of the Texas Southern University College of Pharmacy and Health Sciences (COPHS) is to produce quality health care professionals, especially African-Americans and other ethnic minorities, who are competent in health care delivery, including the provision of patient-centered care and other health care services and programs.

In fulfilling its purpose, the College is committed to six objectives:

- providing an innovative, productive and receptive learning environment for research and scholarly activities and services;
- infusing new technology into its infrastructure and academic programs;
- preparing, nurturing and mentoring students to be leaders in their fields and good citizens who give back to their city, state, nation and global communities;
- evaluating and assessing academic programs to ensure that the programs support the mission, vision and values of the university and the college;
- supporting the advancement of graduate education and research; and
- developing cross disciplinary programs to reduce health disparities among minority and other disadvantaged population.

## Accreditation

The College of Pharmacy and Health Sciences is a member of the American Association of Colleges of Pharmacy and the Association of Schools of Allied Health Professionals. The Doctor of Pharmacy program is accredited by the Accreditation Council for Pharmacy Education (ACPE). The Graduate Program in Pharmaceutical Sciences is approved by Texas Higher Education Coordinating Board. The Clinical Laboratory Science (Medical Technology) Program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). The Environmental Health program is accredited by National Environmental Health Science and Protection Accreditation Council (EHAC). The Health Information Management Program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). The Respiratory Therapy Program is accredited by the Committee on Accreditation for Respiratory Care (CoARC). The Health Administration program has full certified Undergraduate Membership Status in the Association of University Programs in Health Administration (AUPHA).

- Health Care Administration (Non Thesis Option), Master of Science (<https://catalog.tsu.edu/graduate/schools-colleges/pharmacy-health-sciences/health-care-administration-non-thesis-option-ms/>)
- Health Care Administration (Thesis Option), Master of Science (<https://catalog.tsu.edu/graduate/schools-colleges/pharmacy-health-sciences/health-care-administration-thesis-option-ms/>)
- Pharmaceutical Sciences, Doctor of Philosophy (<https://catalog.tsu.edu/graduate/schools-colleges/pharmacy-health-sciences/pharmaceutical-sciences-phd/>)
- Pharmaceutical Sciences, Master of Science (<https://catalog.tsu.edu/graduate/schools-colleges/pharmacy-health-sciences/pharmacy-ms/>)

## Health Science - Health Administration

### HSHA 511 Info Systems in Hlth Care Admi (3 Credits)

**Lecture:** 3, **Lab:** 0

INFORMATION SYSTEMS IN HEALTH CARE (3) An introduction to substantive course content that provides basic vocabulary and principles of modern information architectures, computer networking and communication technologies and scientific methods. The course will cover the integration of technology in healthcare at all aspects as a result of the electronic health records, Affordable Care Act, HIPAA, etc. The course will keep students abreast of all cutting edge information systems knowledge by providing real-time instruction using practitioners and case-based problem-solving.

**College/School:** College Of Pharmacy/Hlth Sci.

**Department:** Phar Adm and Adm Health Scienc

### HSHA 512 Intro to Hlth Care Org (3 Credits)

**Lecture:** 3, **Lab:** 0

INTRODUCTION TO HEALTH CARE ORGANIZATIONS (3) A review of U.S. health care organizations beginning with a historical context, systems theory, analysis of organizational components health service disciplines with personnel, national, state and local health trend analysis, quality assurance and its role in health care organizations, political issues, group projects and field trips.

**College/School:** College Of Pharmacy/Hlth Sci.

**Department:** Phar Adm and Adm Health Scienc

### HSHA 513 HC: Management Statistics (3 Credits)

**Lecture:** 3, **Lab:** 0

QUANTITATIVE METHODS OF HEALTH MANAGEMENT (3) Mathematical, statistical, computer applications and statistical techniques used in decision making in health care hospitals.

**College/School:** College Of Pharmacy/Hlth Sci.

**Department:** Phar Adm and Adm Health Scienc

### HSHA 514 Human Resource & Labor Mgmt (3 Credits)

**Lecture:** 3, **Lab:** 0

HUMAN RESOURCES MANAGEMENT AND LABOR RELATIONS (3) A review of the application of theories and concepts of organizational behavior to the personnel management function. Topics will include legal and regulatory influences, job analysis recruitment, selection, placement, compensation, performance, improvement and appraisal.

**College/School:** College Of Pharmacy/Hlth Sci.

**Department:** Phar Adm and Adm Health Scienc

### HSHA 516 Analysis of Hlth Care Mktgs (2 Credits)

**Lecture:** 2, **Lab:** 0

ANALYSIS OF HEALTH CARE MARKETS (2) Introduction to survey marketing concepts as applied to health services organizations. Consumer behavior, marketing segmentation, target marketing, marketing research, management and control of marketing mix variables.

**College/School:** College Of Pharmacy/Hlth Sci.

**Department:** (R)Dept of Health Sciences

### HSHA 517 Health Care Economics (3 Credits)

**Lecture:** 3, **Lab:** 0

HEALTH CARE ECONOMICS (3) Economy methodologies applied to the health services, concept of efficiency applied to production and distribution of health services, health insurance, government programs, health care personnel, health services organizations, current health policy issues, and emphasis on individual student application of economic principles to health issues.

**College/School:** College Of Pharmacy/Hlth Sci.

**Department:** Phar Adm and Adm Health Scienc

**HSHA 518 Urban Health Disparities (3 Credits)****Lecture:** 3**College/School:** College Of Pharmacy/Hlth Sci.**Department:** (R)Dept of Health Sciences**HSHA 525 Healthcare Managerial Communication (3 Credits)****Lecture:** 3

The course develops the management skills and competencies to enhance oral and written communication for health care managers. The course focuses on developing written skills in executive

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Adm and Adm Health Scienc**HSHA 535 Health Care Professionalism/Leadership (3 Credits)****Lecture:** 3**College/School:** College Of Pharmacy/Hlth Sci.**Department:** (R)Dept of Health Sciences**HSHA 612 Health Care Law & Bioethics (3 Credits)****Lecture:** 3, **Lab:** 0

HEALTH CARE LAW BIOETHICS (3) Reviews legal principles influencing health care providers. An overview of basic instruction in contract law, tort law, and antitrust law. Emphasizes major health care liability producing areas and interfaces between law and ethics with an in-depth approach to monitoring the moral mission of the institution. Case studies and practitioner support will be emphasized in this course. Prerequisite: HSHA 512 or Program Director Permission

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Adm and Adm Health Scienc**HSHA 613 Research Desg Meth & Analysis (3 Credits)****Lecture:** 3

RESEARCH DESIGN METHODS (3) The course identifies health services research methodology used by health care administrators to collect, analyze and prepare reports for the purposes of running healthcare organizations. The courses focuses on both quantitative and qualitative research methodology enhancing competencies in decision-making based upon statistical analysis various forms of health care data including survey data, patient records, financial records, and other operational data. HSHA 512 or Program Director Permission

**Prerequisite(s):** HSHA 512**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Adm and Adm Health Scienc**HSHA 620 Contemporary Issues (3 Credits)****Lecture:** 3**Prerequisite(s):** HSHA 512**College/School:** College Of Pharmacy/Hlth Sci.**Department:** (R)Dept of Health Sciences**HSHA 621 Healthcare Org, Strategy & Mgm (3 Credits)****Lecture:** 3**Prerequisite(s):** HSHA 512**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Prattice/Clinical Hlth Sci**HSHA 650 Administrative Residency I (3 Credits)****Lab:** 3**Prerequisite(s):** HSHA 512**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Adm and Adm Health Scienc**HSHA 651 Administrative Residency II (3 Credits)****Lecture:** 3, **Lab:** 0

ADMINISTRATIVE RESIDENCY (3) A defined and structured field experience which will provide a practical professional relationship with preceptor, through handson practical experience which is gained of the management process within health service organizations and the application of theory and techniques through an assigned project or series of projects. Students must participate in two semesters (480 hours) of administrative residency. Students must have health insurance, liability insurance and current TB and immunization records. Prerequisite: Advisor Permission

**Prerequisite(s):** HSHA 512**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Adm and Adm Health Scienc**HSHA 652 Healthcare Managerial Finance (3 Credits)**

MANAGERIAL FINANCE (3) Application of financial management techniques to decision making for health care providers. Financial management functions and organizations, financial statement analysis, working capital management, present value analysis, capital budget, analysis of local capital management, analysis of local capital budget, cost of capital, variance analysis, financial techniques, case studies, financial analysis. HSHA 512 or Program Director Permission

**Prerequisite(s):** HSHA 512**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Adm and Adm Health Scienc**HSHA 658 Thesis Research I (3 Credits)****Lecture:** 3, **Lab:** 0

THESIS/RESEARCH PROJECT (3) An intensive research study or selected project on a critical issue of health care administration, giving evidence of a thorough study of original sources, using the information, skills and knowledge obtained throughout the course of study. The student must register for both 658 and 659 to complete the THESIS requirement. The instructor of the Thesis course does not have to serve as the chair of the thesis committee.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Adm and Adm Health Scienc**HSHA 659 Thesis Research II (3 Credits)****Lecture:** 3, **Lab:** 0

THESIS/RESEARCH PROJECT (3) An intensive research study or selected project on a critical issue of health care administration, giving evidence of a thorough study of original sources, using the information, skills and knowledge obtained throughout the course of study. The student must register for both 658 and 659 to complete the THESIS requirement. The instructor of the Thesis course does not have to serve as the chair of the thesis committee.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Prattice/Clinical Hlth Sci**HSHA 662 Health Policy Analysis (3 Credits)****Lecture:** 3

HEALTH POLICY ANALYSIS (3) Analysis of major issues in health services in health care institutions, inclusive of hospitals, medical practices, public health, mental health and professional health education. Prerequisite: HSHA 512 or Program Director Permission

**Prerequisite(s):** HSHA 512**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Adm and Adm Health Scienc

**HSHA 663 Epidemiology Health Care Administration (3 Credits)****Lecture:** 3, **Lab:** 0

EPIDEMIOLOGY FOR HEALTH ADMINISTRATION (3) The course provides an overview into population health and other public health topics for healthcare administration students. The course provides an introduction to competencies in the surveillance of disease in the population. A general analysis of population and public health concepts and terminology explain illness in the population. HSHA 512 or Program Director Permission

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Dpt of Pharmaceu Sc& Env HS**HSHA 669 HSHA-Independent Study (3 Credits)****Lecture:** 3**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Adm and Adm Health Scienc**HSHA 670 Cultural Competency for HealthCare Leaders (3 Credits)****Lecture:** 3**Prerequisite(s):** HSHA 512**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Adm and Adm Health Scienc**HSHA 680 Health Admin Capstone (3 Credits)****Lecture:** 3**Prerequisite(s):** HSHA 512**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Adm and Adm Health Scienc**HSHA 699 Independent Study (3 Credits)****Lecture:** 3**Prerequisite(s):** HSHA 512**College/School:** College Of Pharmacy/Hlth Sci.**Department:** (R)Dept of Health Sciences

## Pharmaceutical Sciences

**PHS 800 Bioethics (3 Credits)****Lecture:** 3

The role of codes of professional conduct in the recognition, evaluation and resolution of conflicting ethical principles in research.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Dpt of Pharmaceu Sc& Env HS**PHS 801 Biostatistics (3 Credits)****Lecture:** 3

Application of descriptive and inferential statistical principles to data collection, collation, and analysis.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** (R)Dept of Pharmaceutical Sci**PHS 802 Sem/Special Topics (1 Credits)****Lecture:** 1

Students' critical review of research papers and presentations on contemporary scientific issues. Seminars on research topics by outstanding scientists.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** (R)Dept of Pharmaceutical Sci**PHS 803 Seminar/Special Topics (1 Credits)****Lecture:** 1, **Lab:** 0

Students' critical review of research papers and presentations on contemporary scientific issues. Seminars on research topics by outstanding scientists.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Dpt of Pharmaceu Sc& Env HS**PHS 804 Seminar/Grantsmanship (1 Credits)****Lecture:** 1

Student review and presentation of contemporary issues in / pharmaceutical sciences. Study of basic principles of developing a grant proposal with emphasis on goals/objectives, plan, data analysis, and budgeting.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Dpt of Pharmaceu Sc& Env HS**PHS 805 Seminar/Grantsmanship (1 Credits)****Lecture:** 1

Student review and presentation of contemporary issues in / pharmaceutical sciences. Study of basic principles of developing a grant proposal with emphasis on goals/objectives, plan, data analysis, and budgeting.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** (R)Dept of Pharmaceutical Sci**PHS 806 Admin and the Biomed Scien (3 Credits)****Lecture:** 3

A course covering the elements and effective practice of management and administration, including decision-making processes, policy and program development, and selected aspects of behavior in organizations.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** (R)Dept of Pharmaceutical Sci**PHS 807 Exp Design/Instr/Clin Measurmt (3 Credits)****Lecture:** 3

The study of the theoretical and practical applications of literature search, statistics, and planning/ design to research development are discussed. It prepares students to employ these tools in solving research problems.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Dpt of Pharmaceu Sc& Env HS**PHS 808 Pathophysiology (3 Credits)****Lecture:** 3

A discussion of the definition, classification, etiology, diagnosis, course, prognosis, signs, and symptoms of disease conditions.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Dpt of Pharmaceu Sc& Env HS**PHS 809 Pharmacology (3 Credits)****Lecture:** 3

Provides knowledge of all aspects of the interactions of drugs with living tissues. Mechanisms of drug action that underlie the use of drugs for purposes are discussed. (Prerequisite: PHS 808, Pathophysiology and PHS 813 Advanced Biochemistry).

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Dpt of Pharmaceu Sc& Env HS**PHS 810 Physical Pharmacy (3 Credits)****Lecture:** 3

The study of proteolytic equilibria and buffer solutions, interfacial phenomena and diffusion coefficient, stability kinetics, complexation and protein binding, and polymer science.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Dpt of Pharmaceu Sc& Env HS

**PHS 811 Pharmacokinetics (3 Credits)****Lecture:** 3

The discussion of processes of absorption, distribution, metabolism and excretion of drugs. This course also examines the effects of disease, drug dosage forms, and drug doses on therapeutic and toxic responses. (Prerequisite: PHS 810)

**College/School:** College Of Pharmacy/Hlth Sci.

**Department:** Dpt of Pharmaceu Sc& Env HS

**PHS 812 Advanced Biochem (3 Credits)****Lecture:** 3

A course exploring the mechanisms of action of biological catalysts and effectors with regard to possible means of selective chemotherapeutic control of biological processes.

**College/School:** College Of Pharmacy/Hlth Sci.

**Department:** (R)Dept of Pharmaceutical Sci

**PHS 813 Advanced Organic Chem (3 Credits)****Lecture:** 3

Focus on the structure and functions of molecules and the application of those parameters to the design and synthesis of organic substances.

**College/School:** College Of Pharmacy/Hlth Sci.

**Department:** Dpt of Pharmaceu Sc& Env HS

**PHS 814 Lab Rotation (3 Credits)****Lecture:** 3

An introduction of on-going research projects to students in three laboratories. Students must complete this course before selecting the dissertation advisor.

**College/School:** College Of Pharmacy/Hlth Sci.

**Department:** Dpt of Pharmaceu Sc& Env HS

**PHS 815 Masters Research (1-3 Credits)****Lecture:** 3

MASTERS THESIS Supervised research and thesis preparation

**College/School:** College Of Pharmacy/Hlth Sci.

**Department:** (R)Dept of Pharmaceutical Sci

**PHS 816 Masters Thesis (1-3 Credits)****Lecture:** 3

**College/School:** College Of Pharmacy/Hlth Sci.

**Department:** (R)Dept of Pharmaceutical Sci

**PHS 900 Biosyn and Drug Metabolism (3 Credits)****Lecture:** 3

A course describing methods employed in the study/synthesis of natural compounds, biotransformation pathways, and the significance of metabolism in the design of new agents.

**College/School:** College Of Pharmacy/Hlth Sci.

**Department:** Dpt of Pharmaceu Sc& Env HS

**PHS 901 Cell Biology (3 Credits)****Lecture:** 3

A course which conveys an understanding of the molecular basis of cellular compartmentalization, protein/membrane trafficking, cytoskeleton regulation, molecular motors, cell cycle, cell death, signal transduction, cell-cell and matrix-cell communications.

**College/School:** College Of Pharmacy/Hlth Sci.

**Department:** Dpt of Pharmaceu Sc& Env HS

**PHS 904 Genetics and Pharmacogenomics (3 Credits)****Lecture:** 3

A course describing the biology and physiology of genes. It covers the genetic basis of diseases, drug actions/toxicity, and interindividual differences in responses to drugs.

**College/School:** College Of Pharmacy/Hlth Sci.

**Department:** Dpt of Pharmaceu Sc& Env HS

**PHS 905 Advanced Medicinal Chem (3 Credits)****Lecture:** 3

A course emphasizing practical synthetic chemistry useful in the preparation of complex polyfunctional molecules.

**College/School:** College Of Pharmacy/Hlth Sci.

**Department:** (R)Dept of Pharmaceutical Sci

**PHS 906 Advanced Pharmacokinetics (3 Credits)****Lecture:** 3

The application of concepts of drug kinetics to the interpretation of preclinical and clinical data. Mathematical derivations of the mass balanced relationships involving rate processes and their physiological importance are discussed. (Prerequisite: PHS 811)

**College/School:** College Of Pharmacy/Hlth Sci.

**Department:** (R)Dept of Pharmaceutical Sci

**PHS 907 Advanced Pharmaceutics (3 Credits)****Lecture:** 3

Discussion of topics including Preformulation pharmaceutical excipients, solid dosage forms, dispersed systems, microencapsulated formulations, controlled release dosage forms and dermatological and biotechnological-derived products

**College/School:** College Of Pharmacy/Hlth Sci.

**Department:** (R)Dept of Pharmaceutical Sci

**PHS 908 Advanced Drug Delivery Sys (3 Credits)****Lecture:** 3

The current practice, rationale and design of novel drug delivery systems, novel drug delivery systems under investigation and future drug delivery technology and systems.

**College/School:** College Of Pharmacy/Hlth Sci.

**Department:** (R)Dept of Pharmaceutical Sci

**PHS 910 Endocrine Pharmacology (3 Credits)****Lecture:** 3

A discussion of the impact of drugs on the biosynthesis and mechanisms of action of hormones in regulation of cellular metabolism and expression of physiological effects. Research problems in endocrinology will be highlighted. (Prerequisites: PHS 809, Pharmacology.)

**College/School:** College Of Pharmacy/Hlth Sci.

**Department:** (R)Dept of Pharmaceutical Sci

**PHS 912 Neurpharmacology (3 Credits)****Lecture:** 3

A course focusing on the etiology and development of neurological disease and how drugs, at a molecular level, affect transmission of chemical signals, the brain's signaling system and function as well as pathways of neurological disorders. (Prerequisite: PBS 809, Pharmacology.)

**College/School:** College Of Pharmacy/Hlth Sci.

**Department:** Dpt of Pharmaceu Sc& Env HS

**PHS 913 Molecular Pharmacology (3 Credits)****Lecture:** 3

A course designed to study receptors, signaling, pathways, enzymes, channels, transcriptional mechanisms, and molecular modeling relevant to drug design and drug action.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** (R)Dept of Pharmaceutical Sci**PHS 916 PhD Research I (1-3 Credits)****Lecture:** 3

Supervised research on an approved research problem suitable for the preparation of a dissertation.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Dpt of Pharmaceu Sc& Env HS**PHS 917 PhD Research II (1-3 Credits)****Lecture:** 3, **Lab:** 0

Supervised research on an approved research problem suitable for the preparation of a dissertation.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Dpt of Pharmaceu Sc& Env HS**PHS 918 PhD Dissertation I (1-9 Credits)****Lecture:** 1-9

Supervised research and dissertation preparation

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Dpt of Pharmaceu Sc& Env HS**PHS 919 PhD Dissertation II (1-9 Credits)****Lecture:** 1-9

Supervised research and dissertation preparation

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Dpt of Pharmaceu Sc& Env HS