

# DEPARTMENT OF PHARMACY ADMINISTRATION AND ADMINISTRATIVE HEALTH SERVICES

The Department of Pharmacy Administration and Administrative Health Sciences offers two baccalaureate or undergraduate degrees: **the Bachelor of Science (B.S.) in Health Administration and the B.S. in Health Information Management**. Each degree program has a Program Director, and courses specific to each program are offered through the Department under the following designations: HSHA (Health Administration) and HSHI (Health Information Management). Student majors within the Health Sciences are required to complete three to six HSCR (Health Sciences Core) courses, which are also offered through the Department.

The **Health Administration Program** provides market ready graduates with the competencies and skills to be effective administrators and managers in health delivery systems. Graduates are prepared to function effectively in response to trends, issues, and challenges affecting both health care systems and the health and welfare of the population.

The **Health Information Management Program** provides graduates with the technical and administrative skills to manage health information systems consistent with professional standards (medical, administrative, ethical, and legal) in health care delivery systems. Graduates also possess the knowledge and skills needed to plan and develop health information systems which meet standards of accrediting and regulating agencies.

Courses offered through the Department, curricular summaries for the various degrees, and the sequences in which program-specific courses and their primary prerequisite and co-requisite courses should be taken are indicated below.

**Students should refer to program admission policies, comprehensive examination information, and other important information regarding the various B.S. degrees offered through this department within the College of Pharmacy and Health Sciences introductory section of this document.**

The Department of Pharmacy Administration and Administrative Health Sciences also offers Master of Science (M.S.) degree in Health Care Administration. Students who are interested in pursuing a graduate degree in Health Care Administration should consult the Graduate School Bulletin of Texas Southern University for further information.

- Clinical Laboratory Science, Bachelor of Science (<https://catalog.tsu.edu/undergraduate/schools-colleges/pharmacy-health-sciences/pharmacy-administration-administrative-health-services/clinical-laboratory-science-bs/>)
- Health Administration, Bachelor of Science (<https://catalog.tsu.edu/undergraduate/schools-colleges/pharmacy-health-sciences/pharmacy-administration-administrative-health-services/health-administration-bs/>)
- Health Information Management, Bachelor of Science (<https://catalog.tsu.edu/undergraduate/schools-colleges/pharmacy-health-sciences/pharmacy-administration-administrative-health-services/health-information-management-bs/>)
- Respiratory Therapy, Bachelor of Science (<https://catalog.tsu.edu/undergraduate/schools-colleges/pharmacy-health-sciences/>)

pharmacy-administration-administrative-health-services/respiratory-therapy-bs/)

## Health Administration Courses

### HSHA 211 Health Info Systems (3 Credits)

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

Health Information Systems (3) Overview of the methods for collecting health data in the preparation of health surveys and reports with computer research applications emphasized. Three hours of lecture per week.

**Prerequisite(s):** (HSCR 150 and ENG 131 and ENG 132)

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

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

### HSHA 233 History and Sociology of Healthcare (3 Credits)

**Lecture:** 3

An Investigation of the historical aspects of health and healthcare. 3 credit hour course.

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

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

### HSHA 234 Hlthcare Issue/Professionalism (3 Credits)

**Lecture:** 3

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

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

### HSHA 262 Public Policy & Hlth Care (3 Credits)

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

Public Policy and Health Care (3) Overview of major national and state health legislation and health policy. Three hours of lecture per week.

**Prerequisite(s):** (CS 116)

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

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

### HSHA 312 Health Admin In Sch System (3 Credits)

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

Health Administration in School Systems (3) Examination of health care issues in the Houston Independent School District where enrollees are provided an opportunity to perform projects in school health settings. Three hours of lecture per week.

**Prerequisite(s):** (HSHA 211 and HSHA 262)

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

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

### HSHA 313 Hlth Care Of Poor (3 Credits)

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

Health Care of the Poor (3) Examination of health care issues affecting the uninsured, the working uninsured, and the poor in the health care system. Three hours of lecture per week.

**Prerequisite(s):** (HSHA 211 and HSHA 262)

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

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

### HSHA 314 Fin & Econ Of Hlth Care (3 Credits)

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

Finance and Economics of Health Care (3) Overview of health care financial and economics concepts in health care facilities. Three hours of lecture per week.

**Prerequisite(s):** (PA 321)

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

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

**HSHA 330 Intro to Hlthcare Adm & Mgmt (3 Credits)**

**Lecture:** 3

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

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

**HSHA 331 Health Information Systems (3 Credits)**

**Lecture:** 3

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

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

**HSHA 332 Intro Commun & Population Hlth (3 Credits)**

**Lecture:** 3

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

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

**HSHA 333 Hlthcare Finance & EconomicsI (3 Credits)**

**Lecture:** 3

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

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

**HSHA 334 Long-Term Care (3 Credits)**

**Lecture:** 3

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

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

**HSHA 335 Hlth Pol & US Hlthcare Sys (3 Credits)**

**Lecture:** 3

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

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

**HSHA 336 Res Health Professionals (3 Credits)**

**Lecture:** 3

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

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

**HSHA 337 Intro Human Resource Manag HC (3 Credits)**

**Lecture:** 3

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

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

**HSHA 338 Hlthcare fin & Econ II (3 Credits)**

**Lecture:** 3

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

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

**HSHA 339 Health Disparities (3 Credits)**

**Lecture:** 3

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

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

**HSHA 361 Long Term Care (3 Credits)**

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

Long Term Care (3) Introductory examination of health issues on the rehabilitation and continuing care level: nursing homes, geriatric wellness centers, and homes for the mentally retarded. Three hours of lecture per week.

**Prerequisite(s):** (PA 271 and HSHA 211 and HSHA 262)

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

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

**HSHA 363 Ambula Hlth Care Servs (3 Credits)**

**Lecture:** 3

Ambulatory Health Care Services (3) Examination of outpatient health care delivery settings: ambulatory surgery centers, fitness centers, clinics, and HMO's. Three hours of lecture per week.

**Prerequisite(s):** (HSCR 360 and HSHA 313)

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

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

**HSHA 365 Global Health (3 Credits)**

**Lecture:** 3

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

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

**HSHA 411 Internship (3,6 Credits)**

**Lecture:** 3, **Lab:** 38

Health Administration Internship (3) Direct exposure of students to professional work experiences and responsibilities through workplace settings. May be taken twice for credit. One hour of lecture and thirty-eight hours of laboratory per week. Prerequisite: Consent of the Program Director and instructor.

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

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

**HSHA 412 Legal Eth Bmed Aspects Hlt (3 Credits)**

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

Legal, Ethical, and Biomedical Aspects of Health Care (3) Examination of issues in health care from an ethical, medical, sociological, and legal perspective. Three hours of lecture per week.

**Prerequisite(s):** (HSCR 360)

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

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

**HSHA 413 Sem Community Health (3 Credits)**

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

Seminar in Community Health (3) Detailed examination of state and local health care issues: role of the U. S. Department of Health and Human Services and the Harris County Health System. Three hours of lecture per week.

**Prerequisite(s):** (HSCR 300)

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

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

**HSHA 414 Sem Issues In Hlth Care (3 Credits)**

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

Seminar in Issues in Health Care (3) Detailed study of health care management issues. Three hours of lecture per week. Prerequisites: HSHA 211, HSHA 363, PA 311, and PA 312.

**Prerequisite(s):** (HSHA 211 and HSHA 363 and PA 311 and PA 312)

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

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

**HSHA 430 HC Symposium/Professional Dev (3 Credits)**

**Lecture:** 3

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

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

**HSHA 431 HC Mgmt & Leadership (3 Credits)**

**Lecture:** 3

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

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

**HSHA 432 HC Org: Oper/Quality Control (3 Credits)**

**Lecture:** 3

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

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

**HSHA 433 HC Org: Strategic Plan & Mktg (3 Credits)**

**Lecture:** 3

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

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

**HSHA 434 Legal & Ethic Aspects Hlthcare (3 Credits)**

**Lecture:** 3

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

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

**HSHA 435 Introduction to Global Health (3 Credits)****Lecture:** 3**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Adm and Adm Health Scienc**HSHA 438 Hlth Admin: Independent Study (3 Credits)****Lecture:** 3**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Adm and Adm Health Scienc**HSHA 439 Hlth Admin: Capstone & IPE (3 Credits)****Lecture:** 3**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Adm and Adm Health Scienc**HSHA 451 Health Care Of The Aged (3 Credits)****Lecture:** 3, **Lab:** 0

Health Care of the Aged (3) Detailed review of current and future issues in the delivery of health care services to the aged for interdisciplinary students. Three hours of lecture per week. Prerequisites: HSHA 211, HSHA 363, PA 311, and PA 312 or consent of the instructor.

**Prerequisite(s):** (HSHA 211 and HSHA 363 and PA 311 and PA 312)**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Adm and Adm Health Scienc**HSHA 461 Health Administration Internship (6 Credits)****Lecture:** 6**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Adm and Adm Health Scienc

## Health Information Management Courses

**HSHI 362 Med Term Word Processing (3 Credits)****Lecture:** 3

Medical Terminology/Word Processing (3) Designed to extensively develop the student's medical vocabulary: Greek and Latin prefixes, suffixes, word roots, and combining forms used to build medical terms. Three hours of lecture per week. Prerequisites: BIOL 135 and BIOL 136.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSHI 363 Basic Foundations I (3 Credits)****Lecture:** 3

Basic Foundations I (3) Introduction to health information systems and technology; assessment of institutional and patient-related information needs; departmental, informational, service, and operational needs. Three hours of lecture per week. Prerequisite: HSCR 150.

**Prerequisite(s):** (HSCR 150)**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSHI 363L Basic Foundations I Lab (2 Credits)****Lab:** 6

Basic Foundations Laboratory (2) Designed to simulate a health information department with the activities of health information management. Prerequisite: HSCR 150. Co-requisite: Enrollment in HSHI 363 required. Six hours of laboratory per week.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSHI 364 Management of Health Data I (3 Credits)****Lecture:** 3

Management of Health Data I (3) Indexes and registries; nomenclature and classification systems; data abstraction; departmental operations and services. Three hours of lecture per week. Prerequisites: HSHI 362, HSHI 363, HSHI 363L, HSHI 365, and HSHI 366.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSHI 364L Management of Health Data Lab (2 Credits)****Lab:** 6

Management of Health Data Laboratory (2) Simulated activities where students are given the opportunity to practice coding diagnoses and procedures from actual medical records using computer technology. Six hours of laboratory per week. Prerequisites: HSHI 362, HSHI 363, HSHI 363L, HSHI 365, and HSHI 366.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSHI 365 Directed Practice I (2 Credits)****Lecture:** 2, **Lab:** 0

Directed Practice I (2) Students assigned to Health Information Management Departments for experiences in the technical aspects of health information management. Two hours of lecture and one hour of laboratory per week. Prerequisites: BIOL 135 and BIOL 136.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSHI 366 Legal Aspects (2 Credits)****Lecture:** 2, **Lab:** 0

Legal Aspects (2) Legal terminology; the court system; control and use of health information; health care legislation and regulations; confidentiality; ethical standards for health information managers. Two hours of lecture per week. Prerequisites: HSCR 150 and HSCR 260.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSHI 373 Basic Foundations II (2 Credits)****Lecture:** 2, **Lab:** 0

Basic Foundations II (2) Management of health information in non-traditional settings: long-term care, ambulatory care, hospices, home health care, psychiatric centers, and rehabilitation facilities. Two hours of lecture per week. Prerequisites: HSHI 363 and HSHI 363L.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSHI 374 Management of Health Data II (2 Credits)****Lecture:** 2, **Lab:** 0

Management of Health Data II (2) Clinical coding procedures, outpatient coding, statistics, and reporting guidelines. Two hours of lecture per week. Prerequisites: HSHI 362, HSHI 363, HSHI 363L, HSHI 364, HSHI 365, and HSHI 366.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSHI 401 Inserv Trng Hlth Info Mgrs (1 Credits)****Lecture:** 1, **Lab:** 0

In-Service Training for Health Information Managers (1) Presentation of in-service training tools and techniques. One hour of lecture per week. Prerequisite: HSHI 479.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci

**HSHI 402 Comp Hlth Info Mgmt (1 Credits)****Lecture: 1, Lab: 0**

Comprehensive Health Information Management (1) Review of competencies addressed in all professional courses. Students enrolled must pass a comprehensive examination with a score of 75% or better prior to graduation. Prerequisites: Completion of all HSCR and HSHI courses, except HSHI 476 and HSHI 478.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSHI 473 Quality Assurance Mgmt (3 Credits)****Lecture: 3, Lab: 0**

Quality Assurance Management (3) Teory and application of quality improvement, utilization review, risk management, Medicare and Medicaid review process, and other laws and regulations applicable to health information systems. Tree hours of lecture per week. Prerequisites: HSHI 362, HSHI 363, HSHI 363L, HSHI 364, HSHI 365, and HSHI 366.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSHI 474 Computerized Hlth Info Systems (3 Credits)****Lecture: 3, Lab: 0**

Computerized Health Information Systems (3) Evaluation of hardware and software components of computers for health information systems: design and cost efectiveness, record linkages, and data sharing. Tree hours of lecture per week. Prerequisites: HSHI 362, HSHI 363, HSHI 363L, HSHI 364, HSHI 365, and HSHI 366.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSHI 475 Directed Practice II (3 Credits)****Lecture: 3, Lab: 0**

Directed Practice II (3) Students assigned to a health information management center for experiences in quality improvement, computer applications, classification systems, and statistical analysis of health information. One hour of lecture, one hour of laboratory, independent study per week. Prerequisites: HSHI 362, HSHI 363, HSHI 363L, HSHI 364, HSHI 365, and HSHI 366.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSHI 476 Preceptorship (4 Credits)****Lecture: 4, Lab: 0**

Preceptorship (4) Students assigned to a health information center for administrative management training. Individual projects assigned for completion at site. One hour of lecture and ten hours of laboratory per week. Prerequisite: Consent of the Program Director.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSHI 477 Mgmt of Hlth Info Systems (4 Credits)****Lecture: 4, Lab: 0**

Management of Health Information Systems (4) Teories of managerial concepts and control mechanisms as applied to health information systems. Four hours of lecture per week. Prerequisites: All HSHI courses through HSHI 475.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSHI 478 Probs In Medical Records (2 Credits)****Lecture: 2, Lab: 0**

Problems in Medical Records / Health Information Management (2) Problem identification and resolution, including formulation of alternative solutions, for health information management. Post-preceptorship discussions also included. Two hours of lecture per week. Prerequisite: Consent of the Program Director.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSHI 479 Health Info Personnel Mgmt (3 Credits)****Lecture: 3, Lab: 0**

Health Information Personnel Management (3) Discussion of the skills, techniques, policies, and procedures needed for successful human resource management: interview process, performance appraisals, and wage and salary administration. Tree hours of lecture per week. Prerequisites: All HSHI courses through HSHI 475.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci

## Clinical Laboratory Science Courses

**CLSC 252 Sero Practices and Procedures (2 Credits)****Lecture: 2**

Serology Practices and Procedures (2) Integration of didactic instruction with discussion of serology tests in normal and disease states, principles and significance of procedures, quality control, audiovisual and case studies to provide a comprehensive understanding of serologic practices and procedures in evaluating disorders of the immune system, infectious diseases, autoimmune disease and hypersensitivity states. Two hours of lecture weekly. Prerequisite: Consent of Program Director.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**CLSC 252L Sero Pract & Proc Lab (1 Credits)****Lab: 1**

Serology Practices and Procedures Laboratory (1) Course provides students with a simulated clinical laboratory experiences in processing patient specimens, performing selected tests/analysis of specimens, report results and correlate test results with pathologic diseases/conditions. Three hours of laboratory weekly. Co-requisite: concurrent enrollment in HSCL 252 lecture. Prerequisite: Consent of Program Director.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**CLSC 306 Comp Med Tech (1 Credits)****Lecture: 1**

Comprehensive Clinical Laboratory Science (1) This course will provide exposure to laboratory management as well as research skills and techniques. Research class will culminate in a presentation of clinical research. Additionally, there will be reinforcement of theoretical acquisition of core knowledge in CLS to facilitate application to board type questions. The class will be repeated with the first semester of the senior year covering management and the second semester of the senior year covering research. One hour of lecture per week. Prerequisites: HSCR 300 or concurrent enrollment, CLSC 304 and CLSC 305.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**CLSC 307 Comprehensive Clinical Lab II (1 Credits)****Lab: 1****College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci

**CLSC 357 Pract I (3 Credits)****Lecture: 3**

Practicum I (3) Performance of serological and urinalysis techniques and methods in an affiliated clinical facility. Includes quality assurance practices and procedures and equipment maintenance. Fifteen hours of laboratory per week. Prerequisite: Consent of the Program Director and fourth year standing.

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

**Department:** Phar Praticce/Clinical Hlth Sci

**CLSC 358 Clin Immuno (3 Credits)****Lecture: 3**

Clinical Immunology (2) Clinical rotation in an affiliated clinical facility with emphasis on technical skills and applications. Ten hours of laboratory per week. Prerequisite: Consent of the Program Director.

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

**Department:** Phar Praticce/Clinical Hlth Sci

**CLSC 457 Clinical Pract Preceptorship (3 Credits)****Lecture: 3**

Clinical Preceptorship and designated Laboratory Site. 3 hours per week.

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

**Department:** Phar Praticce/Clinical Hlth Sci

**CLSC 458 Clinical Immunology Preceptorship (2 Credits)****Lecture: 2**

Clinical Preceptorship at designated Clinical Immunology Laboratory Site.

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

**Department:** Phar Praticce/Clinical Hlth Sci

**CLSC 466 Clin Hema (4 Credits)****Lecture: 4**

Clinical Hematology (4) Clinical practicum in an affiliated clinical facility with emphasis on practical/technical skills and applications. Two hours of lecture and eighteen hours of laboratory per week. Prerequisite: Fourth year standing and consent of the Program Director.

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

**Department:** Phar Praticce/Clinical Hlth Sci

**CLSC 467 Blood Bank (4 Credits)****Lecture: 4**

Blood Bank (4) Clinical practicum focusing on the performance of antibody assessments, compatibility phlebotomy, component preparation, donor processing of donated blood, and quality assurance. Two hours of lecture and eighteen hours of laboratory per week. Prerequisite: Fourth year standing and consent of the Program Director.

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

**Department:** Phar Praticce/Clinical Hlth Sci

**CLSC 468 Clinical Micro Preceptorship (4 Credits)****Lecture: 4**

Clinical Microbiology (4) Clinical rotation at an affiliated clinical site to emphasize practical/technical skills and applications. Two hours of lecture and eighteen hours of laboratory per week. Prerequisite: Fourth year standing and consent of the Program Director.

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

**Department:** Phar Praticce/Clinical Hlth Sci

**CLSC 469 Clinical Biochemistry Precept. (4 Credits)****Lecture: 4**

Clinical Biochemistry (4) Clinical rotation at an affiliated clinical site to emphasize practical/technical skills and applications. Two hours of lecture and eighteen hours of laboratory per week. Prerequisite: Fourth year standing and consent of the Program Director.

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

**Department:** Phar Praticce/Clinical Hlth Sci

**CLSC 3105 CLS Practice Management (1 Credits)****Lecture: 1**

An introduction to clinical laboratory science which provides a comprehensive understanding of a clinical lab with an inclusive overview of overview of the profession, laboratory safety, compliance, regulatory agencies, and instrumentation. Didactic instruction and case studies will be integrated. One hour of lecture per week.

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

**Department:** Phar Praticce/Clinical Hlth Sci

**CLSC 3204 Basic Laboratory Techniques (2 Credits)****Lecture: 1, Lab: 1**

An introduction to basic laboratory techniques in clinical laboratory science (safety, pipetting, dilutions, spectrophotometry, lab math, QC/QA, microscopy, phlebotomy), The course integrates didactic instruction and lab procedures to provide an understanding of basic lab techniques. Lecture 1 hour, lab 1 hour per week.

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

**Department:** Phar Praticce/Clinical Hlth Sci

**CLSC 3256 Hemostasis (2 Credits)****Lecture: 1, Lab: 3**

Hemostasis (primary and secondary hemostasis, and fibrinolysis) is introduced. Platelet function and disorders, coagulation and thrombotic disorders and their therapies are studied. Didactic instruction is integrated with labs. Eighty minutes of lecture and three hours of lab weekly.

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

**Department:** Phar Praticce/Clinical Hlth Sci

**CLSC 3269 Clinical Microbiology II (2 Credits)****Lecture: 1, Lab: 2**

A study of the taxonomy, morphology, pathogenesis, and identification of human pathogenic parasites, fungi, and viruses, including the practical application of laboratory procedures, quality control, quality assurance, and safety. One hour of lecture and two hours of laboratory weekly.

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

**Department:** Phar Praticce/Clinical Hlth Sci

**CLSC 3351 Diagnostic Immunology (3 Credits)****Lecture: 2, Lab: 3**

This course will provide students with a fundamental understanding of immunology including evaluating disorders of the Immune system, Infectious diseases, autoimmune diseases and hypersensitive states. Didactic and laboratory will be integrated. Two hours of lecture and 3 hours of lab weekly.

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

**Department:** Phar Praticce/Clinical Hlth Sci

**CLSC 3353 Urinalysis and Body Fluids (3 Credits)****Lecture: 2, Lab: 3**

This course integrates theory of urinalysis, (including renal physiology) and body fluids, with laboratory procedures to provide the student with basic knowledge and technical skills necessary for performing urinalysis and Body Fluids testing. Two hours of lecture and three hours of laboratory weekly.

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

**Department:** Phar Praticce/Clinical Hlth Sci

**CLSC 3355 Clinical Chemistry I (3 Credits)****Lecture: 2, Lab: 3**

Basic clinical chemistry practices and lab procedures for carbohydrates, electrolytes and acid/base physiology, renal, and hepatic function and QC in normal and diseased states will be introduced. Didactic instruction, case studies, and labs will be integrated. Two hours of lecture and 3 hours of lab weekly.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**CLSC 3359 Clinical Microbiology I (3 Credits)****Lecture: 2, Lab: 3**

Student will demonstrate knowledge of medically relevant microorganisms (gram stain, colony characteristics, basic biochemical reactions), and develop an understanding of the pathogenesis and pathology of infectious diseases in humans. Three hours of lecture and three hours of lab per week.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**CLSC 3362 Hematology II (3 Credits)****Lecture: 2, Lab: 3**

An advanced course in hematology focusing on Leukocyte Disorders. Processes required to perform, interpret, classify, and evaluate cellular abnormalities specific to leukocytes will be taught. Lab will be integrated with lectures. There will be 2.7 lecture hours and 3 lab hours per week.

**Prerequisite(s):** CLSC 3452**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**CLSC 3364 Blood Bank II (3 Credits)****Lecture: 2, Lab: 3**

Advanced concepts in transfusion practice: indications for transfusions, component therapy, transfusion reactions, donor recruitment, processing blood components, transfusion therapy, HDFN, and AIHA, Federal and state regulations are examined. Two lecture hours and 3 lab hours per week.

**Prerequisite(s):** CLSC 3454**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**CLSC 3365 Clinical Chemistry II (3 Credits)****Lecture: 2, Lab: 3**

Emphasis is on theory, practices and procedures for amino acids, proteins, enzymes, hormones, therapeutic drugs and toxicology testing. Didactic and lab Instruction is correlated for these subjects with health and disease, states. Two hours of lecture and three hours of laboratory activities weekly.

**Prerequisite(s):** CLSC 3355**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**CLSC 3452 Hematology I (4 Credits)****Lecture: 3, Lab: 3**

The theory of development of cellular elements of the blood including principles to detect disease and recognize normal processes affecting the hematopoietic system. Content will focus on red cell disorders: pathophysiology, diagnosis, and laboratory testing. Three hours of lecture and 3 hours of lab weekly.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**CLSC 3454 Blood Bank I (4 Credits)****Lecture: 3, Lab: 3**

This course provides students with a fundamental understanding of Immunohematology; blood group systems, and pre- and post-transfusion testing methods. Didactic Instruction will be Integrated with laboratory procedures, QC, and case studies. Three hours of lecture and three hours of lab weekly.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**CLSC 4111 CLS Research and Education (1 Credits)****Lecture: 1**

This course is designed to introduce students to the basic theories, principle, and concepts of Research and Education. One hour of lecture per week.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**CLSC 4206 CLS Management and Ethics (2 Credits)****Lecture: 2**

Introduction to the basic theories and practices of management in the clinical laboratory: management principles, financial, operations, and human resources, and ethics. Two hours of lecture weekly.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**CLSC 4210 Clinical Molecular Biology (2 Credits)****Lecture: 1, Lab: 3**

This course will introduce the student to the theory, laboratory techniques, and quality control and quality assurance in molecular diagnostic testing. Didactic and laboratory procedures will be integrated. The course will be 80 minutes of lecture and 3 hours of lab per week.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**CLSC 4307 Capstone Review (3 Credits)****Lecture: 3**

This course will provide a reinforcement of theoretical core knowledge in Clinical Laboratory Science to facilitate successful completion of the ASCP board examination. The student will research and present assigned topics in Clinical Laboratory Science, develop assessments for presentations, and practice online review exams. Three hours of lecture weekly.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**CLSC 4458 Clinical Practicum I (4 Credits)****Lab: 4**

Clinical Practicum I applies the knowledge, skills, and professional attitudes of the CLS student in the assigned area of the clinical laboratory. This course utilizes and depends upon external institutions to ensure adequate clinical education and training. Student will be observing and performing clinical tests. 32 hr/week

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**CLSC 4459 Clinical Practicum II (4 Credits)****Lab: 4**

Clinical Practicum II applies the knowledge, skills, and professional attitudes of the CLS student in the assigned area of the clinical laboratory. This course utilizes and depends upon external institutions to ensure adequate clinical education and training. Student will be observing and performing tests. 32 hr/week

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci

**CLSC 4460 Clinical Practicum III (4 Credits)****Lab:** 4

Clinical Practicum III applies the knowledge, skills, and professional attitudes of the CLS student in the assigned area of the clinical laboratory. This course utilizes and depends upon external institutions to ensure adequate clinical education and training. Student will be observing and performing tests. 32 hr/week

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticice/Clinical Hlth Sci**CLSC 4461 Clinical Practicum IV (4 Credits)****Lab:** 4

Clinical Practicum IV applies the knowledge, skills, and professional attitudes of CLS student in the assigned area of the clinical laboratory. This course utilizes and depends upon external institutions to ensure adequate clinical education and training. Students will be observing and performing tests. 32 hr/week

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticice/Clinical Hlth Sci

## Respiratory Therapy Courses

**HSRT 220 Resp Ther Clin Prac I (2 Credits)****Lecture:** 0, **Lab:** 6

Respiratory Therapy Clinical Practicum (2) Introduction to basic procedures; equipment applications; therapeutic modalities for oxygen, humidity, aerosol therapy; methods in and indicators for respiratory therapeutics. Precedes clinical rotation. Six hours of laboratory per week. Corequisites: HSRT 230 and HSRT 231.

**Prerequisite(s):** (HSRT 230 (may be taken concurrently) and HSRT 231 (may be taken concurrently))**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticice/Clinical Hlth Sci**HSRT 222 Dev Prac In Clin Appl (2 Credits)****Lecture:** 0, **Lab:** 12

Developmental Practicum in Clinical Applications (2) Skills enhancement of basic procedures and clinical development in patient respiratory care plan, CPR, mechanical ventilation, and patient assessment. Twelve hours of laboratory per week. Corequisite: HSRT 232.

**Prerequisite(s):** (HSRT 220 and HSRT 232 (may be taken concurrently))**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticice/Clinical Hlth Sci**HSRT 230 Intro Resp Therapy (3 Credits)****Lecture:** 3, **Lab:** 0

Introduction to Respiratory Therapy (3) Introduction to respiratory care basic sciences applications, terminology, ventilatory mechanics, blood-gas analysis, and acid-base balance. Three hours of lecture per week. Corequisites: HSRT 220 and HSRT 231.

**Prerequisite(s):** (HSRT 220 (may be taken concurrently) and HSRT 231 (may be taken concurrently))**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticice/Clinical Hlth Sci**HSRT 231 Cardio-Pulmonary Systems (3 Credits)****Lecture:** 3, **Lab:** 0

Cardiopulmonary Systems (3) Anatomical and physiological study of the cardiovascular and pulmonary systems; contrast of the normal versus dysfunctional cardiopulmonary system; relationship to and effect upon renal physiology. Three hours of lecture per week. Corequisites: HSRT 220 and HSRT 230.

**Prerequisite(s):** (HSRT 233 (may be taken concurrently) and HSRT 240 (may be taken concurrently))**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticice/Clinical Hlth Sci**HSRT 232 Intermediate Clin App (3 Credits)****Lecture:** 4, **Lab:** 0

Intermediate Clinical Applications (4) Theoretical applications in patient assessment, administration, and evaluation of oxygen and aerosol. Intermittent breathing exercises; basic CPR training; and development in mechanical ventilation administration. Four hours of lecture per week. Prerequisites: HSRT 220, HSRT 230, and HSRT 231. Corequisite: HSRT 222.

**Prerequisite(s):** (HSRT 220 and HSRT 230 and HSRT 231) and HSRT 222 (may be taken concurrently)**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticice/Clinical Hlth Sci**HSRT 233 Introduction to Respiratory Therapy (2 Credits)****Lecture:** 2

Introduction to the practice of Respiratory Therapy procedures, equipment applications; therapeutic modalities. 2 credit hours every week.

**Prerequisite(s):** (HSRT 231 (may be taken concurrently) and HSRT 240 (may be taken concurrently))**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticice/Clinical Hlth Sci**HSRT 234 Intermediate Clinical Applications (2 Credits)****Lecture:** 2

Theoretical applications in patient assessment, administration, and evaluation of oxygen and aerosol. Intermittent breathing exercises; basic CPR training and development in mechanical ventilation administration. Two credit hours per week.

**Prerequisite(s):** (HSRT 242 (may be taken concurrently)) and (HSRT 231 and HSRT 233 and HSRT 240)**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticice/Clinical Hlth Sci**HSRT 240 Clinical Practicum I (5 Credits)****Lab:** 5

Introduction to procedures, equipment applications; therapeutic modalities for oxygen, humidity, aerosol therapy; methods in and indications for respiratory therapeutics. 5 credit hours.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticice/Clinical Hlth Sci**HSRT 242 Clinical Practicum II (4 Credits)****Lab:** 4

Application to patient care of RT procedures, equipment applications; therapeutic modalities for oxygen, humidity, aerosol therapy; methods in an indications of respiratory. 4 credit hours per week.

**Prerequisite(s):** (HSRT 231 and HSRT 233 and HSRT 240) and (HSRT 234 (may be taken concurrently))**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticice/Clinical Hlth Sci

**HSRT 301 Respiratory Care Seminar (1 Credits)****Lecture:** 1

Review of contemporary therapeutic and patient care issues in respiratory care. 1 hours lecture per week.

**Prerequisite(s):** HSRT 233 and HSRT 240 and HSRT 242 and HSRT 234**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSRT 307 Resp Care Appl I (1 Credits)****Lecture:** 1

Respiratory Care Applications I (1) Applications and analyses of clinical data for presentation by respiratory care practitioners. One hour of lecture per week. Prerequisite: Consent of the Program Director.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSRT 308 Resp Care Appls II (1 Credits)****Lecture:** 1

Respiratory Care Applications II (1) Continuation of HSRT 307 to include simulations and presentations. One hour of lecture per week. Prerequisite: Consent of the Program Director.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSRT 320 App Proc Equip Clin Prac III (2 Credits)****Lecture:** 0, **Lab:** 6

Applied Procedures and Equipment - Clinical Practicum III (2) Study of and clinical practice in applications of the operation, mechanical features, limitations of, and indications for various types of equipment used in respiratory care. Six hours of laboratory per week. Prerequisites: HSRT 222 and HSRT 232. Corequisites: HSRT 321, HSRT 330, and HSRT 331.

**Prerequisite(s):** (HSRT 222 and HSRT 220 and HSRT 230 and HSRT 231 and HSRT 232) and (HSRT 321 (may be taken concurrently) and HSRT 330 (may be taken concurrently) and HSRT 331 (may be taken concurrently))**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSRT 321 R T Clinical Prac IV (2 Credits)****Lecture:** 0, **Lab:** 6

Respiratory Therapy Clinical Practicum IV (2) Symptomatic presentations and pathophysiological manifestations; clinical experiences; case studies; and advanced respiratory patient care procedures at clinical sites. Six hours of laboratory per week. Corequisite: HSRT 331.

**Prerequisite(s):** (HSRT 220 and HSRT 222 and HSRT 230 and HSRT 231 and HSRT 232)**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSRT 322 R T Clin Prac V (2 Credits)****Lecture:** 0, **Lab:** 6

Respiratory Therapy Clinical Practicum V (2) Continuation of HSRT 321 with emphasis on advanced respiratory care practice and technology where invasive and specialized procedures are used. Six hours of laboratory per week. Corequisite: HSRT 332.

**Prerequisite(s):** (HSRT 220 and HSRT 222 and HSRT 230 and HSRT 231 and HSRT 232 and HSRT 320 and HSRT 321)**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSRT 323 R T Clin Prac VI (2 Credits)****Lecture:** 0, **Lab:** 6

Respiratory Therapy Clinical Practicum VI (2) Long-term, critical, intensive, surgical, and post-surgical assessment of respiratory care therapeutics presented. Advanced clinical experiences, procedures, and case studies obtained at clinical sites. Six hours of laboratory per week. Corequisite: HSRT 333.

**Prerequisite(s):** (HSRT 220 and HSRT 222 and HSRT 230 and HSRT 231 and HSRT 232 and HSRT 320 and HSRT 321)**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSRT 325 Ped Clin Pract (2 Credits)****Lecture:** 0, **Lab:** 12

Pediatric Clinical Practicum (2) Procedures and treatment modalities utilized in the clinical management of neonatal and pediatric patients. Twelve hours of laboratory per week. Corequisite: HSRT 340.

**Prerequisite(s):** HSRT 340 (may be taken concurrently)**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSRT 330 App Proc & Equip (3 Credits)****Lecture:** 3, **Lab:** 0

Applied Procedures and Equipment (3) Study of airway management, resuscitation, continuous assisted ventilation. Specific mechanics and applications of equipment/techniques utilized in corresponding clinical sites. Three hours of lecture per week. Corequisites: HSRT 320, HSRT 321, and HSRT 331.

**Prerequisite(s):** (HSRT 231 and HSRT 233 and HSRT 234 and HSRT 240 and HSRT 242) and (HSRT 331 (may be taken concurrently) and HSRT 334 (may be taken concurrently) and HSRT 340 (may be taken concurrently) and HSRT 360 (may be taken concurrently))**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSRT 331 Cardio-Pulmonary Systems (3 Credits)****Lecture:** 3, **Lab:** 0

Theoretical and Applied Respiratory Therapy (3) Study of the pathophysiology and clinical presentations manifested in pulmonary disease and dysfunction. Acid-base balance; radiological and pulmonary function testing; hemodynamics; and ECG presentations studied. Three hours of lecture per week. Corequisite: HSRT 321.

**Prerequisite(s):** (HSRT 231 and HSRT 233 and HSRT 234 and HSRT 240 and HSRT 242) and (HSRT 330 (may be taken concurrently) and HSRT 334 (may be taken concurrently) and HSRT 340 (may be taken concurrently) and HSRT 360 (may be taken concurrently))**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSRT 332 App Proc & Equip (3 Credits)****Lecture:** 3, **Lab:** 0

Applied Procedures and Equipment (3) Study of advanced, invasive, and specialized procedures applicable to the function of the cardiopulmonary and renal systems. Continuation and augmentation of HSRT 330. Three hours of lecture per week. Corequisite: HSRT 322.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci

**HSRT 333 Cardio-Pulmon Diseases (3 Credits)****Lecture:** 3, **Lab:** 0

Cardiopulmonary Diseases (3) Advanced study of pathology, diagnosis, treatment, and assessment of pulmonary, circulatory, and renal dysfunction. Emphasis on identification of and treatment regimen for specific cardiopulmonary dysfunction. Three hours of lecture per week. Corequisite: HSRT 323.

**Prerequisite(s):** (HSRT 220 and HSRT 222 and HSRT 230 and HSRT 231 and HSRT 232 and HSRT 320 and HSRT 321 and HSRT 330 and HSRT 331)

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSRT 334 Resp Care Pharmacotherapy (3 Credits)****Lecture:** 3, **Lab:** 0

Respiratory Care Pharmacotherapy (3) Clinical aspects and physiologic effects of drugs administered by the respiratory care practitioner. Clinical activities involved in the preparation, delivery, and therapeutic evaluation of administered drugs. Three hours of lecture per week. Prerequisite: HSRT 230 or HSRT 231.

**Prerequisite(s):** (HSRT 220 and HSRT 222 and HSRT 230 and HSRT 231 and HSRT 232)

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSRT 340 Neo Ped Resp Care (3 Credits)****Lecture:** 3, **Lab:** 0

Neonatal and Pediatric Respiratory Care (3) Respiratory care of newborns, infants, and children; procedures in oxygen, aerosol, and ventilatory therapeutics; and review of anatomy/physiology, specific abnormalities, specialized procedures, and clinical presentations. Three hours of lecture per week. Corequisite: HSRT 325.

**Prerequisite(s):** (HSRT 220 and HSRT 222 and HSRT 230 and HSRT 231 and HSRT 232 and HSRT 320 and HSRT 321 and HSRT 330)

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSRT 360 Clinical Practicum III (6 Credits)****Lab:** 6

Clinical application of the operation, mechanical features, limitations of and indications of various equipments used in respiratory care. Six hours of laboratory per week.

**Prerequisite(s):** HSRT 330 and HSRT 334 and HSRT 340 and HSRT 331

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSRT 361 Clinical Practicum IV (4 Credits)****Lab:** 4

Clinical practice an application of respiratory care principles and standards to the care of patients based on symptomatic presentation, pathophysiological manifestations, clinical experiences at clinical sites. 4 credit hours.

**Prerequisite(s):** HSRT 301 and HSRT 332 and HSRT 333

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSRT 400 Data Analysis (3 Credits)****Lecture:** 3

Techniques for data discovery and extraction relevant to clinical studies and reasearch application. Course focuses on exercises in the selection and employment of appropriate statistical methods required to complete experimental design. 3 hours week.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSRT 403 Advanced Practice Applications (3 Credits)****Lecture:** 3

Course engages students in emerging clinical and medicinal applications related to the respiratory care professional Student select from skill development options in health specialization areas of project development. 3 hours per week.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSRT 407 Comprehensive Review Seminar (1 Credits)****Lecture:** 1

Application and Analysis of clinical data for presentation to respiratory care practitioners. 1 hour lecture per week.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSRT 420 Comp Rest Care (2 Credits)****Lecture:** 2, **Lab:** 0

Comprehensive Respiratory Care (2) Comprehensive study of the respiratory care practice at both the technician and therapist levels based on NBRC job analysis survey results. Two hours of lecture per week.

Prerequisite: Consent of the Program Director.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSRT 421 Education in Respiratory Care (2 Credits)****Lecture:** 2

Students are trained in educational methods for patients, family members, and allied health practitioners delivery methods, classroom design and technical applications, and experimental practice. Exercises in development of educational objectives, learning outcomes, design/ implementation of evaluation instruments. 2 hours per week.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSRT 432 Healthcare Leadership (3 Credits)****Lecture:** 3

Study in building leadership competencies synchronizes clinical skills and technological acuity intersecting governing policies, science and medicine, population trends impacting global issues, hospital corporate governance, health inter-professional (interdisciplinary), leadership communication and perspective models. 3 hours of lecture per week.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSRT 433 Pulmonary Rehabilitation (3 Credits)****Lecture:** 3

Study in medical, ethical and reimbursement application for pulmonary rehabilitation issues and impacting factors regarding home care, sleep diagnostic facilities, treatment, discharge planning and impacting legislative and accreditation regulations. 3 hours per week.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci**HSRT 435 Ecg Tech (3 Credits)****Lecture:** 3, **Lab:** 4

Electrocardiographic Technology (3) ECG techniques, procedures, patterns, and interpretations; systematic methods for reading electrocardiograms. Three hours of lecture and four hours of laboratory per week. Prerequisite: Consent of the Program Director.

**College/School:** College Of Pharmacy/Hlth Sci.**Department:** Phar Praticce/Clinical Hlth Sci

**HSRT 436 Intro Respiratory Research (3 Credits)**

**Lecture:** 3

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

**Department:** Phar Praticce/Clinical Hlth Sci

**HSRT 437 Current Issues Trends in Respiratory Therapy Care (3 Credits)**

**Lecture:** 3

Course examines evolving profession, impacting political, social and ethical trends that effect/potentially effect clinical interventions and provisions of the respiratory care practitioner. Students are engaged in independent study and grou discussion on these issues. 3 hours per week.

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

**Department:** Phar Praticce/Clinical Hlth Sci

**HSRT 438 Statistics in Respiratory Care (3 Credits)**

**Lecture:** 3

Students will study and utilize statiscal software in employed for clinical investigations regarding diagnostic procedures, treatment outcomes, and other relevant respiratory and health related topics. Studies include central tendency and variability, probaibility, anlaysis of varieneace and data association and prediction. 3 hours per week.

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

**Department:** Phar Praticce/Clinical Hlth Sci

**HSRT 439 Advanced Cardiopulmonary Life Support (3 Credits)**

**Lecture:** 3, **Lab:** 4

Clinical interventions for the urgent treatment of cardiac arrest, stroke, and other life-threatening medical emergicies, as well as the knowledge and skills to deploy those interventions. 3 hours per week.

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

**Department:** Phar Praticce/Clinical Hlth Sci

**HSRT 440 Respiratory Therapy Management (4 Credits)**

**Lecture:** 3, **Lab:** 4

Respiratory Therapy Management I (4) Departmental management involving personnel, decision making, budgeting, evaluation of departmental effectiveness, and development of departmental policies. Three hours of lecture and four hours of laboratory per week.

Prerequisite: Consent of the Program Director.

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

**Department:** Phar Praticce/Clinical Hlth Sci

**HSRT 441 R T Mgmt II (4 Credits)**

**Lecture:** 3, **Lab:** 4

Respiratory Therapy Management II (4) Continuation of HSRT 440. Three hours of lecture and four hours of laboratory per week. Prerequisites:

HSRT 440 and consent of the Program Director.

**Prerequisite(s):** HSRT 440

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

**Department:** Phar Praticce/Clinical Hlth Sci

**HSRT 444 Case Management in Respiratory Care (4 Credits)**

**Lecture:** 4

Training focused on education patients and families, traning patients on self-management tools and transitionalng patients from acute care to Outpatient management. Studies in patient education, home equipment needs, oxygen assessment, medication managment and activities of daily living. 4 hours per week.

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

**Department:** Phar Praticce/Clinical Hlth Sci

**HSRT 453 Cardio-Pulmon Tech (5 Credits)**

**Lecture:** 3, **Lab:** 6

Cardiopulmonary Technology (5) Pulmonary function testing procedures and interpretation; study of equipment and standards used in pulmonary testing. Three hours of lecture and four hours of laboratory per week.

Prerequisite: Consent of the Program Director.

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

**Department:** Phar Praticce/Clinical Hlth Sci

**HSRT 454 Crit Care & Internship (5 Credits)**

**Lecture:** 2, **Lab:** 6

Critical Care and Internship (5) Comprehensive study of advanced procedures, therapeutic modalities, decision making, and quality control for the practicing respiratory therapist. Two hours of lecture and six hours of laboratory per week. Prerequisites: Completion of all other professional HSRT courses and consent of the Program Director.

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

**Department:** Phar Praticce/Clinical Hlth Sci