College of Health Professions

Dean
Ruth B. Welborn, Ph.D.
Health Professions Building 201
T: 512.245.3300 F: 512.245.3791
www.health.txstate.edu

Associate Dean
Barbara Sanders, Ph.D.
Associate Dean
Marla Erbin-Roesemann, Ph.D.

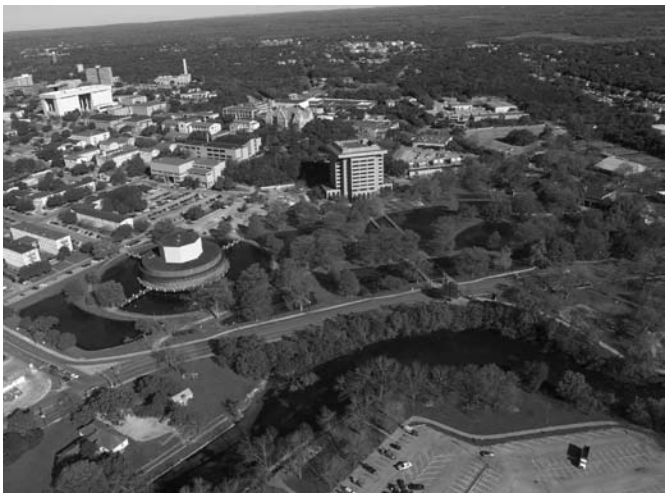
Department Chairs/ Program Chairs/School Directors
Clinical Laboratory Science–David Falleur, M.Ed.
Communication Disorders–Maria Diana Gonzales, Ph.D.
Health Administration–Michael Nowicki, Ed.D.
Health Information Management–Sue Biedermann, M.S.H.P.
Nursing–Marla Erbin-Roesemann, Ph.D.
Physical Therapy–Barbara Sanders, Ph.D.
Radiation Therapy–Ronnie Lozano, M.S.R.S.
Respiratory Care–Gregg Marshall, Ph.D.

Academic Advising Center
Health Professions Building 207
T: 512.245.3506 F: 512.245.1615
www.health.txstate.edu

The College of Health Professions prepares students for careers in the healthcare field. Through its professional, technical, clinical and academic programs, the college serves as an advocate for change and technical improvement in the field. The college also serves as a catalyst to expand and improve public perceptions of healthcare.

Undergraduate programs are available in clinical laboratory science, communication disorders, healthcare administration, health information management, nursing, radiation therapy, and respiratory care. Graduate programs are offered in communication disorders, healthcare administration, healthcare human resources, health services research, and physical therapy. The college has a number of cooperating teaching sites and more than 600 affiliations with hospitals and other healthcare facilities.

A number of programs offered in the College of Health Professions have specific admission requirements in addition to Texas State admission requirements. Most programs also have requirements for student liability insurance and immunizations. Background checks and drug testing may be required.



Academic Advising Center
The mission of the College of Health Professions Academic Advising Center is to provide academic advising which supports undergraduate students seeking admission to a health professions program offered in the College of Health Professions. The Center also prepares degree audits for all undergraduate students in the College of Health Professions, and in coordination with the Dean's Office, verifies graduation.

Clinical Laboratory Science Program

Health Professions Building 350-B
T: 512.245.3500 F: 512.245.7860
www.txstate.edu/cls

Degree Program Offered
BSCLS, major in Clinical Laboratory Science

The Bachelor of Science in Clinical Laboratory Science with a major in Clinical Laboratory Science prepares students to function as clinical laboratory scientists or medical technologists in a wide variety of settings from physician office laboratories to modern tertiary care hospital laboratories. The clinical laboratory scientist can become an indispensable top-level laboratory worker, a supervisor, a specialist, a researcher, or an educator.

The requirements during the first two years of study include courses in biology, chemistry, and mathematics, along with courses in the humanities and social and behavioral sciences. The junior and senior years combine clinical experiences in the affiliated clinical laboratories with advanced academic study in the CLS disciplines.

The program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences. Graduates of the program are eligible to take the national certification examination given by the Board of Registry of the American Society of Clinical Pathologists and/or the National Certification Agency.

Admission Process

Students are selected in the spring semester of their sophomore year for the junior class. Because of the limited number of students that can be accepted for the junior class, students are encouraged to maintain an overall GPA above 2.50. Acceptance into Texas State and declaration as a clinical laboratory science major does not imply that the student will be accepted into the junior class. The criteria for student selection for the junior class includes scholastic ability, particularly in the sciences, and a personal interview, and not on the basis of gender, race, color, religion, veteran status or condition of disability, or national origin. Applications for the junior class must be submitted by March 1. Applicants will be notified of their status by April 1.

Liability Insurance

1. Students who participate in the internship portions of the Clinical Laboratory Science program are required to purchase liability insurance, or demonstrate proof that they are insured.
2. Students may obtain information on liability insurance from the program office.

Immunization Requirements

It is a policy of the College of Health Professions that each student must provide a Health Report completed by a physician, and must take certain immunizations before the student can be placed in a clinical or internship assignment. Information on these requirements and forms to be supplied may be obtained through the program office.

Background Check

The CLS program requires that students pass a criminal background check before placement in a clinical rotation. The background check is completed prior to clinical assignments. Please refer to http://www.txstate.edu/cls/backgroundcheck.htm for more information.

Bachelor of Science in Clinical Laboratory Science
Major in Clinical Laboratory Science
Minimum required: 137 semester hours

General Requirements:

1. Any student who did not complete at least two years of the same foreign language in high school is required to take 6-8 hours of the same foreign language.
2. Any student who did not complete one year of general computer science (literacy) course in high school is required to take a placement course, CLEP, or college course work.
3. See University College section of the catalog for course options that satisfy literature, natural science, and social science components.

Freshman Year		Sophomore Year		Junior Year		Senior Year	
Course	Hr	Course	Hr	Course	Hr	Course	Hr
BIO 1430, 1431	8	BIO 2430, 2450, 2400 or 2440	12	ART, DAN, MU, or TH 2313	3	CLS 4322, 4326	6
CHEM 1341, 1141, 1342, 1142	8	CHEM 2130, 2330, 2150, 2350	8	HP 3302	3	CLS 4227, 4318, 4440, 4460	13
ENG 1310, 1320	6	COMM 1310	3	CLS 3305, 3410, 3323, 3412, 3424	18	CLS 4340, 4341, 4370, 4463	13
MATH 1315	3	ENG Literature	3	Social Science Component	3	CLS 4225, 4361, 4464	9
US 1100	1	PHIL 1305 or 1320	3				
HIST 1310, 1320	6	POSI 2310, 2320	6				
PFW two courses	2						
Total	34	Total	35	Total	27	Total	41

Courses in Clinical Laboratory Science (CLS)

3305 Introduction to Clinical Laboratory Techniques. (2-3) Clinical Laboratory Science students will be introduced to techniques, procedures, and instrumentation commonly used in clinical laboratories.

3323 Clinical Microscopy and Analysis of Body Fluids. (2-3) Study of body fluids present in the various anatomical compartments of the body as they differ in health and disease. Physical and chemical tests, and microscopic examination of select body fluids are performed.

3410 Clinical Chemistry I. (3-4) Designed to acquaint the clinical laboratory science student with some of the concepts, techniques, procedures, and instrumentation used in clinical chemistry.

3412 Hematology/Coagulation I. (3-4) Qualitative and quantitative evaluation of formed elements of the blood and studies in coagulation abnormalities. Prerequisites: BIO 2340, 2350, or 2430.

3424 Clinical Immunology. (3-3) Principles of immune response and underlying immunologic procedures of diagnostic value are discussed. Lectures and laboratory emphasize detection, identification, nature of antigens and antibodies, and the antigen-antibody reactions encountered.

4225 Laboratory Management and Supervision. (2-0) Lectures and discussions of general principles of management and supervision of the clinical laboratory and its personnel. (WI)

4227 Introduction to Clinical Practice. (2-0) Discussion of professional and technical requirements for clinical laboratory science students and their role and responsibilities as a unit of the health care team. (WI)

4318 Hematology II. (2-3) In-depth study of theoretical and practical aspects of clinical hematology and hemostasis with emphasis on principles, methodology, problems encountered, and clinical applications.

4321 Directed Study in Clinical Laboratory Science. (2-6) An in-depth study of a narrow range of topics or a related problem in the clinical laboratory sciences. Topics to be announced; may be repeated for credit when topics vary.

4322 Computer Applications in Clinical Laboratory Operations, Management and Research. (1-4) Study of clinical laboratory computer systems and programs utilized in quality assurance, data management and statistical analysis. (WI)

4326 Medical Parasitology. (2-3) Lecture and laboratory instruction in medically important parasites producing disease in humans with emphasis on epidemiology, life cycles, identifying characteristics, and pathology of these parasites.

4340 Clinical Microbiology II. (2-3) Study of medically important fungi, viruses, chlamydiae, rickettsiae, and advanced topics in clinical microbiology. Automated identification of microorganisms, database management, and epidemiologic techniques will be discussed.

4341 Molecular Diagnostics. (2-3) This course consists of an introduction to the principles, methodologies and applications of molecular diagnostic procedures used in clinical laboratories. Emphasis is placed on the procedures used in the identification of infectious agents that cause human disease, in the diagnosis of inherited diseases, and the diagnosis of cancer.

4342 Clinical Diagnosis of Emerging Infectious Diseases. (3-0) This lecture course focuses on the clinical and laboratory diagnosis of emerging and reemerging infectious diseases. Selected diseases may include historically known agents such as influenza, HIV, and tuberculosis; as well as Ebola, West Nile Virus, SARS, and anthrax. Prerequisite: BIO 2400 or 2440. (MC)

4343 Bioterrorism, A Clinical and Laboratory Perspective. (3-0) This lecture course examines the impact of bioterrorism through the perspectives of the clinical laboratory and the role of medical workers in preparedness and response. Speakers with professional responsibilities in areas of public health response, select agent biology, diagnosis and disease management, and public policy will share their perspectives on bioterrorism. Prerequisite: BIO 2400 or 2440.

4344 The Molecular Aspects of Cancer. (3-0) Examines the molecular basis of cancer, and how environmental and hereditary factors cooperate to elicit the transformed phenotype and promote cancer progression. Emphasizes specific cancer types for which a molecular basis has been identified. Both the clinical aspects and experimental strategies that reveal underlying mechanisms are discussed.

4361 Research Methods in Clinical Laboratory Science. (2-3) Directed independent research covering the principles of research and development of clinical laboratory methodology. (WI)

4370 Clinical Chemistry II. (2-3) A study of the theoretical and practical aspects of clinical chemistry. Manual and automated laboratory procedures for quantitative analysis of various body fluids.

4440 Clinical Microbiology I. (3-6) Study of pathogenic and nonpathogenic bacteria, fungi, and viruses with special emphasis on methods of isolation from body fluids, cultural and differential biochemical characteristics of body pathogens.

4460 Immunohematology. (3-4) Study of theoretical and practical consideration of major blood groups with emphasis on grouping and typing, antibody detection and identification, compatibility testing and component therapy in blood transfusion service.

4463 CLS Clinical Practice I. (0-16) Structured clinical experience assigned on an individual basis for observation, study, and practical application of techniques and methodology in the clinical laboratory.

4464 CLS Clinical Practice II. (0-16) Continuation of Clinical Laboratory Science Practice I; structured clinical experience assigned on an individual basis for observation, study and practical application of techniques and methodology in the clinical laboratory.

Department of Communication Disorders

Health Professions Building 150B
T: 512: 245.2330 F: 512.245.2029
www.health.txstate.edu/CDIS

Degree Program Offered
BSCD, major in Communication Disorders

The Department of Communication Disorders provides undergraduate students with the academic background to successfully enter a graduate program in speech-language pathology or audiology. The undergraduate curriculum provides knowledge in normal and disordered speech, language, swallowing and hearing processes. Coursework in the major is supported by additional courses in psychology, counseling, biology, physics, and statistics.

The Department prepares students at the graduate level to diagnose and manage speech-language problems in children and adults. A master's degree is required for state licensure and national certification. The graduate program is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology.

Admission Process

Students are initially considered Pre-professional Communication Disorders majors (Major code: 760.99). Under this designation, the student is expected to complete the requirements for admissions into the Junior/Senior sequence and the Communication Disorders Major (Major code: 760.10). The Pre-professional Communication Disorders majors take all the 1000-level and 2000-level courses listed on the degree plan in addition to Psychology 3300: Lifespan Development and Health Professions 3302: Biostatistics.

Admission to the Junior/Senior-level courses and the Bachelors of Science Degree in Communication Disorders (Major code: 760.10) is competitive and selective. Enrollment is limited by student/faculty ratios in both academic and clinical components of the program.

To be considered for admission to the Junior/Senior-level courses and the Bachelor of Science Degree in Communication Disorders (Major code: 760.10), the following is required:

1. Completion of a minimum of 50 hours of coursework from the 1000-level and 2000-level courses listed on the CDIS Undergraduate Degree Plan plus PSY 3300 and HP 3302. The 50 hours must be completed by the end of the Summer 1 session in the same calendar year in which the student wishes to begin the Junior/Senior sequence.
2. The following courses must be taken in the 50 hours:
    a. PHYS 1310: Elementary Physics
    b. CDIS 1331: Introduction to Communication Disorders
    c. BIO 2430: Human Anatomy and Physiology
    d. HP 3302: Biostatistics
    e. PSY 3300: Lifespan Development
3. A minimum GPA of 2.75 on the five specific courses listed above. These classes must be completed by the end of the Summer 1 session in the same calendar year in which the student wishes to begin the Junior/Senior sequence.
4) A minimum grade of C in support and major classes listed as part of the freshman/sophomore years on the Degree Plan (HIM 2360: Medical Terminology; BIO 2430: Human Anatomy and Physiology; HP 3302: Biostatistics; PSY 3300: Lifespan Development; CDIS 1331: Introduction to Communication Disorders.

Students are ranked by their GPA in the five required classes (CDIS 1331, HP 3302, PHYS 1310, PSY 3300 and BIO 2430) and admittance in the Junior/Senior year is based on this ranking. Admission is competitive and the minimum GPA is a requirement for applying only. Having the minimum GPA does not guarantee acceptance into the program. Not all students who meet the minimum GPA will be accepted.

The application for admission is submitted to either the department or to the CHP Advising Center by May 15th. Admission decisions are made after the end of Summer 1. All students will be notified by letter of the CDIS Undergraduate Admission Committee's decisions. Student selection is made on academic performance and not on the basis of race, color, religion, gender, age, or national origin.

CDIS Progression and Repeat Course Policy

1. The Junior/Senior-level courses (Bachelors of Science Degree in Communication Disorders Major code: 760.10) academic sequence begins during the fall semester only.
2. Courses must be taken in sequence identified in the catalog.
3. After admission into the Junior/Senior sequence, failure to enroll in all of the recommended CDIS courses for that semester as identified by an advisor in conjunction with the Degree Plan will delay graduation at least a year.
4. CDIS students must receive a grade of "C" or higher in each CDIS class. If a grade below "C" in a junior- or senior-level CDIS courses is earned, the student will not be allowed to continue as a Communication Disorders major and must change majors to something other than CDIS. This change will be done in conjunction with the student's CDIS academic advisor and the College of Health Professions' Advising Center.
5. Make no less than a "C" in support courses.
6. Have a GPA of 2.75 in the major in order to graduate.
7. If a student has not earned the minimum major requirement of 2.75 for graduation and earned "C" or higher in all CDIS courses, the student will be allowed to re-take a CDIS courses only until the student achieves the GPA of 2.75. CDIS students are NOT permitted to re-take CDIS courses if they have earned Cs or higher in the courses.

Liability Insurance

1. Students who participate in the clinical or internship portions of the Department of Communication Disorders are required to purchase liability insurance or demonstrate proof that they are insured.
2. Students may obtain information on liability insurance from the departmental office.

Bachelor of Science in Communication Disorders
Major in Communication Disorders
Minimum required: 120 semester hours

General Requirements:

1. Any student who did not complete at least two years of the same foreign language in high school is required to take 6-8 hours of the same foreign language.
2. If the computer proficiency requirement is not met through high school coursework, the student will be required to take a computer science course.
3. If the students want to apply to the graduate bilingual cognate in communication disorders, it is highly recommended that they take Spanish 3310 (Spanish Phonetics and Phonemics).

Freshman Year		Sophomore Year		Junior Year		Senior Year	
Course	Hr	Course	Hr	Course	Hr	Course	Hr
COMM 1310	3	BIO 2430	4	CDIS 3325, 3312, 3459	10	CDIS 4317, 4330, 4340, 4344	12
CDIS 1331	3	ART, DAN, MU, or TH 2313	3	CDIS 3462, 3469, 3475	12	CDIS 4350, 4370, 4420, 4466	14
ENG 1310, 1320	6	ENG Lit. (2310, 2320, 2330, 2340, 2359, or 2360)	3	COUN 3320	3	PSY 4342 or PSY 3350	3
US 1100	1	HIM 2360	3	ENG 3303	3		
HIST 1310, 1320	6	PSY 3300	3				
MATH 1315	3	PHYS 1110, 1310	4				
PSY 1300	3	POSI 2310, 2320	6				
PFW two courses	2	HP 3302	3				
BIO 1421	4	PHIL 1305 or 1320	3				
Total	31	Total	32	Total	28	Total	29

Courses in Communication Disorders (CDIS)

1331 Introduction to Communication Disorders. (3-0) Study of speech, hearing, and language development and its disorders; descriptions of communicative disorders and their etiologies for the speech-language pathologist, health professional, and classroom teacher.

3312 Neuroanatomy for Communication Disorders. This is a lecture course that examines the organization of the brain, spinal cord, and peripheral nervous system. Significance of the areas of the nervous system that are primary or secondary for speech, language and hearing are the main focus of this course.

3325 Anatomy and Physiology of the Speech Production System. (3-0) Description of structure and function of the speech production system with emphasis on physical problems in speech, language, and hearing.

3459 Phonemics and Phonetics. (3-1) Analysis of normal and abnormal phonological processes in children and adults. Proficiency in transcription using the alphabet of the International Phonetic Association emphasized.

3462 Remediation of Articulatory and Phonological Disorders. (3-2) This course prepares students to manage articulation and phonological disorders. Current therapeutic models are reviewed. Observation of therapy and instruction in preparation of written clinical reports are required. Prerequisites: CDIS 3325, and 3459. (WI) (MP)

3469 Introduction to Hearing Science. (3-2) Study of acoustics, auditory physiology and perception of sound. Includes discussion of auditory sensitivity, signal detection, psychoacoustic methods, perception of pitch and loudness, binaural hearing and speech perception. Associated laboratory promotes reinforcement of concepts addressed in lecture through review, problem solving and weekly assignments.

3475 Speech Science. (3-2) Normal processes of speech production will be addressed from anatomic, physiologic, kinematic, aerodynamic, acoustic, and perceptual perspectives. Measurement and analysis techniques, instrumentation, and experimental paradigms used to study speech production and perception will be emphasized. Prerequisites: CDIS 3325 and 3459.

4301 Selected Topics in Communication Disorders. (3-0) In-depth study of selected topics in Communication Disorders for the exceptionally motivated student. Work done on an independent basis with faculty member and only with prior departmental permission.

4317 Service Delivery in Communication Disorders. (3-0) Provides a foundation of clinical management to prepare CDIS students to work in a variety of settings. Emphasis will be placed on techniques of goal and objective sequencing, report writing, evaluation of services, ethics, and interdisciplinary collaboration. Prerequisites: CDIS 3459, 3462 or 4466 or 4350 and 4330. (WI)

4330 Speech and Language Development. (3-0) Course to acquaint students with acquisition of speech and language in children. Basic information from linguistics, psycho-linguistics, psychology, and communication are examined for children in various stages of development.

4340 Augmentative Communication Systems. (3-0) Designed to review methods of non-oral communication as applied to hospital, rehabilitation, and school settings. Use of electronic communication systems emphasized. Prerequisites or co-requisites: CDIS 4330.

4344 Clinical Practicum in Communication Disorders. (1-4) Supervised clinical practicum in speech-language pathology. Must be taken each semester student participates in any supervised clinical practicum in speech-language pathology. Prerequisites: CDIS 1331, 3459, 3462 or 4466, 4330. (Concurrent registration in 4330 acceptable).

4350 Survey of Neurogenic Communication Disorders. (3-0) This course provides an introduction to acquired speech, language, cognitive and swallowing disorders resulting from

brain injury. Basic neuraoanatomy and physicology are reviewed, followed by discussion of the etiology, diagnosis, treatment, and prognosis of these disorders. Emphasis is placed on aphasia, dysarthia, apraxia of speech, right hemisphere syndrome, traumatic brain injury, dementia, and dysphagia. Prerequisite: CDIS 3312.

4370 Aural Rehabilitation. (3-0) Principles and procedures in the habilitation and rehabilitation of hearing impaired children and adults. Prerequisites: CDIS 4420. (MC) (WI)

4420 Introduction to Audiology. (3-2) Relates anatomy and physiology of the auditory system and the science of acoustics to the study of normal and pathological auditory function. Laboratory experience in administration and interpretation of audiological tests. Discussion of professional opportunities in the field of audiology and provision of audiological service to special populations. Prerequisite: CDIS 3469. (MC)

4466 Clinical Management of Language Disorders. (4-2) Study of principles and procedures for the identification, description, assessment and remediation of language disorders in infants, children, and adolescents. Students will observe demonstrations of assessment procedures and types of language disorders within the context of clinical procedures. Describing observed behaviors and analyzing language samples will be emphasized. Prerequisite: CDIS 4330.

School of Health Administration

Health Professions Building 250
T: 512.245.3494 F: 512.245.8712
www.health.txstate.edu/HA

Degree Program Offered

BHA, major in Healthcare Administration

Minor Offered

Healthcare Administration

The Healthcare Administration major integrates healthcare management theory and practice, and prepares graduates to assume entry to mid/level management positions in a variety of healthcare settings. These settings include health maintenance organizations (HMO's), physician group practice, hospitals, insurance companies, clinics, and medical offices. Healthcare administrators manage employees, prepare and maintain budgets, procure resources and perform other administrative functions so that the clinical professionals can provide their services. The major is certified by the Association of University Programs in Health Administration.

Admission

Any student in Texas State may declare Pre-Healthcare Administration as the major. To declare Pre-Healthcare Administration as a major, contact the School Administrative Assistant.

Pre-Healthcare Administration majors meeting the following criteria will be admitted to the BHA Program:

- Completion of prerequisite courses
- 2.75 Texas State GPA
- Submission of an application to the BHA Program
- Submission of a statement of purpose
- A passing score on the GSP (grammar, spelling, and punctuation) test (70% or higher)
- A grade of "C" in MATH 1315 or equivalent

Field Experience and Graduation

To be eligible to enroll in the HA internship or residency courses (HA 4440, 4441, or 4848), the student must:

a. For HA 4440 or 4441, have completed all general education and junior year HA courses with a minimum grade of "C" and have a 2.25 GPA or better in the HA courses.
b. For HA 4848, have completed all other coursework towards the degree, have a minimum grade of "C" in all HA courses, and have a 2.25 GPA or better in the HA courses.

To graduate with a BHA degree, a student must:

a. Complete all required courses.
b. Have a grade of "C" or higher in each major course.
c. Have a 2.00 Texas State GPA or better and 2.25 GPA or better in the major.
d. Have met University residence requirements.
e. Pass a comprehensive exam administered in HA 4141.

Repeat Policy

All HA students must maintain a minimum major (HA) GPA of 2.25 with no grade below a "C". Students are allowed to repeat each HA course once, and only once, in order to improve their major (HA) GPA or their grade in a particular course. A student having repeated a course and still not achieving a minimum grade of "C" will not be allowed to continue as a healthcare administration major. Therefore, students needing to repeat courses are encouraged to seek assistance from the instructor or a director-appointed mentor.

Exit Exam

All healthcare administration majors are required to take a exit exam, over the major administered in HA 4141, prior to graduation. Questions for the exit exam will be taken from all the healthcare administration (HA) courses. Students are encouraged to save all course material (textbooks, syllabi, class notes, etc.) to use in preparing for the exam.

Liability Insurance

1. Students who participate in the internship portion of the Healthcare Administration program are required to purchase liability insurance or demonstrate proof that they are insured.
2. Students may obtain information on liability insurance from the school office.

Immunization Requirements

It is a policy of the College of Health Professions that each student must provide a Health Report completed by a physician, and must take certain immunizations before the student can be placed in a clinical or internship assignment. Information on these requirements and forms to be supplied may be obtained through the school office.

Bachelor of Healthcare Administration
Major in Healthcare Administration
Minimum required: 120 semester hours

General Requirements:
1. A 2.75 Texas State GPA is required for program admission.
2. Any student who did not complete at least two years of the same foreign language in high school is required to take 6-8 hours of the same foreign language.
3. See University College section of the catalog for course options that satisfy literature, natural science, and social science components.

Freshman Year		Sophomore Year		Junior Year		Senior Year	
Course	Hr	Course	Hr	Course	Hr	Course	Hr
COMM 1310	3	ART, DAN, MU, or TH 2313	3	HA 3309, 3324, 3315, 3375	12	HA 3345, 4304, 4305,	
ENG 1310, 1320	6	ECO 2301 or 2314	3	HA 3329, 3340, 3341, 3376	12	4307	12
US 1100	1	ENG Literature	3			HA 4315, 4320, 4325	9
HIST 1310, 1320	6	HA 3308	3			HA 4141	1
MATH 1315	3	HP 3325, SOCI 3307, or equivalent	3			HA 4440	4
PHIL 1305 or 1320	3	HP 2351 or CIS 1323 or CS 1308	3			HA 4441	4
PFW two courses	2	POSI 2310, 2320	6				
Social Science Component	3	Electives/Minor	8				
Natural Science Component	7-8						
Total	34-35	Total	32	Total	24	Total	30

Minor in Healthcare Administration

The Healthcare Administration minor is designed to complement the student's major with the objective of providing an introductory curriculum, which can assist the student in gaining employment in healthcare and healthcare related career fields. This objective can be achieved by: building on general education core foundations; offering scheduling flexibility for non-traditional students; introducing students to health services management functions through the mastery of certain skills including communication, decision-making, and coordination, unique to healthcare administration; and preparing students for graduate study. The minor requires 18 hours including a 9-hour core of required courses, HA 3308, 3324, and 4307, and 9 hours of electives chosen from HA 3309, 3315, 3329, 3375, 4304, 4305, and 4315.

Courses in Healthcare Administration (HA)

3308 Healthcare Organization. (3-0) Overview of the healthcare system and the role hospitals have played and continue to play in the future. Analysis of organizational structure of a hospital and other healthcare agencies, administrative and management elements necessary for policy determination, decision making, and control to achieve institutional goals and objectives.

3309 Ethics in the Health Professions. (3-0) This course introduces the student to a sound foundation in well-established ethical theories and a familiarity with terms, concepts and issues in ethics as applied to the health professions. Also provides practical methods for proceeding from considered reflection to informed action in solving ethical problems.

3311 Independent Study in Healthcare Administration. (3-0) An in-depth study of a single topic or problem confronting the healthcare industry. This course affords the student an opportunity to focus on a topic/problem or group of related problems impacting healthcare managers. This course may be repeated for credit with a different emphasis.

3315 Healthcare Administration History, Culture, and Language. (3-0) An introduction to the historical and cultural development of modern healthcare administration in contemporary American society. Special attention is given to the mores of health services delivery including critiques and use of professional behavior and language. (MC)

3324 Supervisory Management for Healthcare Managers. (3-0) Introduction to the following functions of supervisory management: planning, organizing, staffing, influencing, and controlling; as well as the connective processes of decision-making, coordinating, and communicating in healthcare organizations. (WI)

3329 Human Resources in Healthcare Management. (3-0) Human resource management as applicable to the healthcare field. Human resource planning, staffing, job requirements, job descriptions, sources of labor supply, training and education programs, salary administration, employee communications, legal considerations, union-management relations. Prerequisite: HA 3324.

3340 Management of Health Information Systems. (3-0) Provides an introduction to information systems for healthcare facilities and agencies. Covers determining what information is needed by whom; designing information flows, procurement of computer/telecommunication resources, assuring information security, and continuing management of information systems supporting healthcare delivery.

3341 Training and Professional Development in Healthcare. (3-0) This course examines the training and professional development processes as applied to the healthcare industry. Emphasis is placed on staff developments, need analysis, task analysis, development of training and continuing education programs for healthcare personnel. (WI)

3345 Employment Law in Healthcare Management. (3-0) Examines the legal aspects of healthcare human resource management. Each of the major federal and state enactments

impacting human resource management will be studied in depth. Prerequisite: HA 3329.

3375 Principles of Accounting for Healthcare Managers. (3-0) Provides an introduction to accounting useful in healthcare facilities and agencies, and demonstrates the application of accounting principles and techniques in the healthcare field. Prerequisites: ECO 2301 or 2314 and HP 3302 or equivalent.

3376 Financial Management for Healthcare Managers. (3-0) A concentration in the fundamentals of healthcare financial management including the financial organization of non-profit facilities, sources of operating revenue, management of working capital, and the allocation, control and analysis of resources. Prerequisites: ECO 2301, HA 3375 or approval of instructor.

4121 Problems in Healthcare Administration. (1-0) In-depth study of a singular problem considered to be of immediate concern to the health care industry. Special emphasis is placed on problems unique to managers in the field of health administration. May be repeated with permission of department chair.

4141 Healthcare Comprehensive Exam and Review. (1-0) A course in which each of the respective faculty will review their portion of the comprehensive examination that all HA majors are required to successfully pass during their final semester of study. The comprehensive exam will be administered at the conclusion of the course.

4221 Problems in Healthcare Administration. (2-0) In-depth study of a narrow range of topics considered to be of immediate concern to the health care industry. Special emphasis on problems unique to managers in the field of health administration. May be repeated with permission of department chair.

4303 International Health. (3-0) An examination of various approaches used by international health systems related to organization, delivery, financing, development of resources, planning, and regulation. Course will give attention to changing ideologies and values of various countries as they relate to health care. (MC) (WI)

4304 Patient Care Management and Quality Improvement in Health Care. (3-0) This course is a comprehensive study of integrated delivery systems and managed care organizations. It includes an analysis of managed care operations, reimbursement, legal and regulatory issues, consumer driven health care, medical management, quality management, cultural competence, patient safety, behavioral health care, Medicare and Medicaid managed care, and healthcare reform. (MC/MP)

4305 Healthcare Services Marketing. (3-0) The course applies the principles of services marketing to healthcare organizations. The course will present tools to identify and close the gaps that exist between customer expectation of services and the services provided and to ensure quality of health care.

4307 Essentials of Healthcare Law. (3-0) This course includes a review of the laws pertaining to healthcare institutions, physicians, and other healthcare workers who contribute to patient care. Tort and contract law are emphasized. The course addresses policy issues and ethics through topics like patient rights, reproduction, and end of life decisions.

4311 Cost Accounting for Healthcare Organizations. (3-0) A study of the cost accounting methods and techniques appropriate to the healthcare industry. The focus is on the control and measurement of costs, budgeting practices, and the generation of financial information to aid in supervisory and managerial decision making. Prerequisite: HA 3375.

4312 Materials and Logistics Management for Health Services. (3-0) Study of materials and logistics management for health services. Cost and control of goods, services, and equipment has a significant impact on the viability of the healthcare business. Students will learn how to apply qualitative measures to control, analyze, and manage inventory, purchases, supplies and capital equipment purchases. Prerequisites: HA 3308 and 3375.

4315 Health Services Problem Solving and Decision Making. (3-0) An introduction to methodologies used to seek solutions to health administration problems which affect technical and professional personnel. Designed to place emphasis on techniques most directly applicable to models of administration and management decision making.

4320 Seminar in Healthcare Administration. (3-0) Current trends and problems in health administration affecting health administration technical and professional personnel. Designed to place emphasis in selected areas of administration and management. Research paper and presentation is required of each student. Prerequisites: HA 3308, 3329, 3341, and 3375. (WI) (MC/MP)

4325 Healthcare Strategic Management. (3-0) This capstone class integrates accounting, finance, marketing, MIS, and organizational behavior in the creation of sustainable competitive advantage. Health care case studies will be used to illustrate key concepts.

4440 Practicum Internship A. (0-16) Students with specialization in management participate in a health services based practicum. Experiences in providing opportunities for observation, participation, and practical application of administrative or management skills in the institutional setting are required. Prerequisites: Must have a 2.25 major GPA and have completed all junior year major courses.

444l Practicum Internship B. (0-16) Studies tailored to particular interests and needs of individual students. A variety of experiences may be used to enrich the program for students with special needs or demonstrated competencies. Prerequisite: Final semester of study.

4848 Healthcare Administrative Residency. (0-40) Designed for students who have limited or no previous background in healthcare management/administration. Includes rotation through selected major departments, culminating in a major project. Prerequisite: Final semester of study.

Courses in Health Professions (HP)

1310 The Health Care System and Professionals. (3-0) Comprehensive study of the professional fields, their relationship to each other, and professional responsibilities. Structure of health care system including hospital organization, health care agencies, role of the government, and professional ethics.

2310 Contemporary Issues in Health Care. (3-0) This course is an introduction to contemporary issues in health care important to both future health professionals and informed health

care consumers. Course activities will focus on solutions to problems of access, quality, and cost. May be repeated for credit with different emphasis.

2351 Application of Computers in the Health Professions. (2-1) An introduction to computer applications important to health care including both common and specialized medical software. Common computer applications are introduced using projects and data resources from a healthcare environment. Students also examine specialized medical applications such as the National Library of Medicine, healthcare Internet resources, and telemedicine.

3302 Biostatistics. (2-2) The course introduces major statistical concepts and procedures as applied to clinical science students with an emphasis on inferential statistics. Topics include: descriptive statistics, hypothesis testing, comparison statistics, relationship statistics, association statistics, and beginning epidemiological ratios. Students are introduced to major statistical packages. Prerequisite: MATH 1315 or 1319.

3311 Problems in Health Services. (3-0) An examination, through independent study, of an emerging trend or issue important to the future of health care. Topics may vary from semester to semester, and the course may be repeated for credit with a different area of study.

3325 Healthcare Statistics (3-0) The course introduces major statistical concepts and procedures as applied to healthcare administration students with an emphasis on descriptive statistics. Topics include: healthcare statistical terminology, descriptive statistics, hypothesis testing, comparison statistics, relationship statistics, and association statistics. Prerequisite: MATH 1315 or 1319.

3350 Introduction to Public Health. (3-0) Introduces public health and its core functions at the local, state, and federal levels in the United States and worldwide. Areas of focus include epidemiology, environmental health, maternal and child health, disease prevention and control, and responses to the threat of biological and chemical terrorism.

Department of Health Information Management

Health Professions Building 220
T: 512.245.8242 F: 512.245.8258
www.health.txstate.edu/HIM

Degree Program Offered

BSHIM, major in Health Information Management

Minor Offered

Health Information Management

The Bachelor of Science in Health Information Management with a major in Health Information Management degree program prepares students to work in the health information management profession which focuses on health care data and the management of health care information resources. The profession addresses the nature, structure, and translation of data into usable forms of information including the electronic health record for the advancement of health and health care of individuals and populations.

Health information management professionals collect, integrate, and analyze primary and secondary health care data, disseminate information and manage information resources, related to the research, planning, provision, and evaluation of health care services. HIM professionals are an integral part of the planning, implementing and utilization of electronic health record systems.

The program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education. Upon completion of the degree, graduates of the program are eligible to sit for the RHIA (Registered Health Information Administrator) examination offered by the American Health Information Management Association.

The BSHIM is offered in two formats—the traditional campus-based program and an on-line program. The Traditional Campus-Based Program is a two plus two program with completion of general education core curriculum and program prerequisite coursework during the first two years. Following application and acceptance into the program, the final two years consists of the professional coursework reinforced with professional practice experience assignments in hospitals and other health care related facilities and organizations. Application deadline is March 1.

The on-line Program is offered primarily for those who have already completed an associate degree in health information or other degree or have previous healthcare work experience. Academic advisement is required to determine eligibility and placement in this program. The courses for the program are offered via web-based instruction, independent study, and professional practice experience. Application deadline is March 1.

Admission Process

To apply to the HIM Program, students must:

1. Have completed the majority of the Core and other prerequisite coursework;
2. Have a minimum overall GPA of 2.50;
3. Be eligible for admission to Texas State. (University application deadlines are different than the HIM Program deadline. Potential program applicants are encouraged to complete the University process early to facilitate review of transcripts during the HIM Program application process.);
4. Submit HIM Program application by March 1 for consideration to begin the HIM coursework in the fall semester; and
5. Interview with the HIM Program Admissions Committee with notification of acceptance communicated by April 1.

It is strongly recommended that students present themselves for academic advising with an HIM program advisor as soon as health information management has been selected as a major.

Advanced standing in the health information management program will require a review of the student's credentials and previous coursework. Because of course sequencing and the scheduling of clinical assignments, students who drop out of the program for one or more semesters will be required to reapply for admission and be re-interviewed by the admissions committee.

Students must make a "C" or higher in each HIM course to meet progression and graduation requirements.

During the second semester of the senior year, students are required to take a five-week professional practice experience course. This course requires that the students spend a minimum of five weeks in other institutions (hospitals, health agencies, etc.) away from campus. Students must furnish their own transportation and housing. Because of the time and distances involved, no courses other than those listed can be taken in the final semester of the senior year.

Liability Insurance

1. Students enrolled in the Health Information Management program are required to purchase liability insurance, or demonstrate proof that they have professional liability insurance.
2. Students may obtain information on liability insurance from the program office.

Immunization Requirements

It is a policy of the College of Health Professions that each student must provide a Health Report completed by a physician, and must take certain immunizations before the student can be placed in a clinical or internship assignment. Information on these requirements and forms to be supplied may be obtained through the program office.

Background Checks and Drug Screening

As a condition for placement in some professional practice sites, students may be required to have a background check and/or drug screening and meet other requirements set by individual sites. Information will be provided by program faculty.

Bachelor of Science in Health Information Management
Major in Health Information Management
Minimum required: 123-124 semester hours

General Requirements:
1. BIO 2430 is required; HIM 2360 and CS 1323 are preferred before admission to the program can be considered.
2. Any student who did not complete at least two years of the same foreign language in high school is required to take 6-8 hours of the same foreign language.
3. See University College section of the catalog for course options that satisfy literature, natural science, and social science components.

Freshman Year		Sophomore Year		Junior Year		Senior Year	
Course	Hr	Course	Hr	Course	Hr	Course	Hr
Natural Science Component	7-8	ART, DAN, MU, or TH 2313	3	HIM 3301, 3310, 3463, 3367, 3390	16	HIM 4331, 4363, 4364, 4370, 4401	16
COMM 1310	3	BIO 2430	4	HIM 3368, 3380, 3464	10	HIM 4225, 4383, 4385, 4390, 4501	16
ENG 1310, 1320	6	CS 1323	3	HIM 3311, 3350	6		
US 1100	1	ENG Literature	3				
HIST 1310, 1320	6	HIM 2360	3				
MATH 1315	3	HP 3302	3				
PFW two courses	2	PHIL 1305 or 1320	3				
Social Science Component	3	POSI 2310, 2320	6				
Total	31-32	Total	28	Total	32	Total	32

Minor in Health Information Management

A minor in Health Information Management requires 22 hours, including HIM 4331, 3350, 3380, 3390, 3463, 4363, and 4385. Appropriate sequencing of courses is necessary for progression to subsequent courses. This minor would enhance and broaden the scope of various other fields of study by providing a well-rounded introduction and an opportunity for practical applications of the administrative functions related to the management of health information. Completing this minor does not meet eligibility requirements for the R.H.I.A. (Registered Health Information Administrator) certification examination offered by the American Health Information Management Association. Academic advisement is important prior to enrolling in HIM minor courses due to sequencing requirements.

Courses in Health Information Management (HIM)

2345 The Language of Healthcare: Spanish. (3-0) An introduction of the practical language used in clinical settings to facilitate interaction with Spanish-speaking patients and healthcare professionals. Special emphasis is placed on the use of meaningful medical vocabulary for various healthcare professionals who work with Spanish-speaking patients and their families. Prerequisite: Two semesters of Spanish.

2360 Medical Terminology. (3-0) Recognizing and understanding the vocabulary of the health care professions. Emphasis on medical prefixes, suffixes, and word roots as used in oral and written communications.

3301 Principles of Health Information Management. (3-0) Exploration of the expanding role of the HIM professional. Emphasis will be on the organizational structure and delivery of healthcare in hospitals and other healthcare agencies and the associated roles of HIM professionals.

3310 Fundamentals of Health Information Systems. (3-0) An introduction to the information technology aspects of health information management to include hardware components, systems architecture, operating systems, languages, software applications, tools, and related topics and concepts.

3311 Management of HIM Systems. (2-2) An introduction to the system life cycle with an emphasis on the role of the HIM professional in the implementation of electronic health record systems. Systems development and information brokering are considered with particular emphasis on data security.

3350 Legal Aspects of HIM. (3-0) A study of the legal issues of Health Information Management with focus on statutory and regulatory requirements, case law and practical applications. Special legal problems associated with access to patient information, disposition of records, confidentiality and privacy, reporting requirements and compliance with current state and federal legislation are emphasized.

3367 Disease and Medical Science I. (3-0) An introduction to the general disease process. Stress is placed upon the occurrence of disease, the signs and symptoms of disease, the test values and findings of disease, and the therapeutic treatment of disease. Prerequisite: HIM 2360 or consent of the program chair.

3368 Disease and Medical Science II. (3-0) A continuation of Disease and Medical Science I. Prerequisite: HIM 3367.

3380 Quality Improvement Regulations & Procedures for HIM. (3-0) Overview of regulatory agency requirements for quality improvement, utilization management and risk management. Methods for integrating these procedures for credentialing and peer review are explored.

3390 Departmental Management. (3-0) A study of the principles involved in managing HIM departments in hospitals and other healthcare facilities. The course provides the opportunity to apply theory to traditional HIM managerial responsibilities and in the expanded role of the HIM professional.

3463 Introduction and Technical Aspects of Health Information Management. (2-4) An introduction into principles and procedures used in health records organization, maintenance and retention, numbering and filing systems and procedures, forms control and design, and imaging. Emphasis placed on functions and duties of the HIM administrator, and relationships of the medical record to the health care delivery system.

3464 Nosology. (2-2) Introduction to ICD-CM, CPT and other classifications and nomenclatures. Emphasis will be placed on manual coding of diagnoses and procedures from the acute care facility and the introduction of the use of encoding systems.

4101 Problems in Health Information Management. (1-0) Comprehensive study of selected problems related to professional practice issues and changes in the health information management field. Emphasis will be on problem solving and application of management skills. May be repeated with permission of department chair.

4225 Health Information Management Research and Education. (2-0) A course of independent reading and research with the student completing a research project and developing an in-service instructional module. Emphasis is on the application of health information management theory and clinical practice. (WI)

4331 Health Information Management Research and Data Analysis. (3-0) An introduction to research methods and experimental inquiry to acquaint the student with skills to critique and conduct studies in the health information management domains. The course will also provide the foundation for compiling, analyzing, and displaying statistics related to the delivery of healthcare.

4363 Comparative Record Systems. (3-0) Theory and procedures for the maintenance and regulation of patient health information records in non-hospital medical care facilities to include long term care, ambulatory care, psychiatric care, rehabilitation and prison record keeping systems.

4364 Classification, Nomenclature and Reimbursement. (2-2) Continued study of ICD-9-CM, CPT 4 and other classification and nomenclatures. The relationship with inpatient and ambulatory care reimbursement systems is also explored.

4370 Finance and Reimbursement Methodologies for HIM. (3-0) Course will address the reimbursement cycle from patient registration to claims billing with an emphasis on federal regulations and the role of HIM regarding payment systems. Topics will include accounting principles, budget processes, cost/benefit analysis, healthcare finance, compliance strategies, charge-master and casemix management, and payment systems and plans.

4383 Seminar in Health Information Management. (3-0) Problem-solving course designed to assimilate actual internship encounters and theory. Emphasis is on integration

of knowledge and making transition to the applications required to function as a health information manager.

4385 Health Information Management Practicum. (0-8) Assignments made to promote uniformity and competency levels required of entry-level medical record professionals. The majority of assignments will be completed in the HIM lab utilizing records, the computer capabilities, and other resources available for practical applications of management skills. To be completed during final semester. (WI)

4388 Internship I. (1-40) Supervised administrative training in a hospital setting. Emphasis on personnel problems, HIM interdepartmental relations, managerial responsibilities, and committee assignments. Full-time participation of the student is required.

4389 Internship II. (1-40) Supervised administrative training in a non-traditional Health Information Management setting. Affiliation may be in long-term care, home health, state or federal agencies, clinic or community health agencies, or companies providing HIM services. Full-time participation of the student is required.

4390 Contemporary Leadership Principles for HIM. (3-0) An analysis of the expanded role of the Health Information Management professional in the healthcare environment and application of the principles involved. Topics include strategic planning and forecasting, marketing, entrepreneurialism, leadership, motivation, consensus building, workforce diversity, change management, work redesign/reengineering, and project management. (WI)

4401 Health Information Technology Throughout the Enterprise. (3-2) This course studies the integrated use of health information technology throughout the enterprise. Students will evaluate how technology impacts overall hospital operations from both a clinical and administrative perspective and will use planning and assessment tools to simulate technology system implementation.

4501 Professional Practice Experience. (1-40) Supervised management experience and training in a healthcare or related setting. Student will participate in administrative, management, and problem-solving activities in the institutional setting. Full-time participation is required in addition to scheduled campus visits. (WI)

St. David's School of Nursing

Nursing Building
Round Rock Higher Education Center
Round Rock, TX
T: 512.716.2900 F: 512.716.2911
www.health.txstate.edu/nursing

Degree Program Offered

BSN, major in Nursing

Mission Statement

To educate and prepare graduates to function in professional nursing roles now and in the future, to promote, maintain, and restore health, using evidence-based practice and contributing to research and current technology in providing safe and effective nursing services to diverse individuals of all ages and to communities.

The degree program in nursing is a five semester program beginning in the junior year. The junior and senior years combine academic study in nursing and clinical experiences in affiliated clinical settings. Accreditation by the American Association of Colleges of Nursing-Commission on Collegiate Nursing Education (AACN-CCNE) has been applied for with a site visit proposed for fall 2011.

Admission Process

Admission to the undergraduate major in nursing is competitive and selective, and the student must apply and be accepted to the St. David's School of Nursing. For admission to the fall semester, the application period begins the previous October 1 and runs through the first Friday in January. The following criteria must be met for admission consideration:

1. Be admitted to Texas State University-San Marcos
2. Complete the majority of all general core and pre-requisite courses with a minimum GPA of 3.0 and a "C" or better in science courses taken in the past five years. All pre-requisites must be completed prior to admission for fall and support the admission GPA.
3. Take the Test of Essential Academic Skills (TEAS), an assessment of academic preparedness covering reading, math, science, English and language usage.
4. Complete the Texas State nursing application with application fee.
5. Submit a personal essay outlining motivation for applying for the BSN program.
6. Submit three personal references from former employers or faculty.
7. Attend an interview with nursing faculty.
8. Submit to a criminal background check.

Liability Insurance

Once accepted to the program students must either purchase liability insurance, or demonstrate proof that they have professional liability insurance.

Immunizations: The SON requires that required immunizations, along with a health report completed by a physician, be submitted by the 1st of August.

Drug Screening: As a condition for placement in some professional practice sites, students may be required to submit to drug screening and meet other requirements set by individual sites. Information will be provided by program faculty.

Bachelor of Science in Nursing
Major in Nursing
Minimum required: 130 semester hours

General Requirements:

1. Any student who did not complete at least two years of the same foreign language in high school is required to take 6-8 hours of the same foreign language.
2. Any student who did not complete one year of general computer science (literacy) course in high school is required to take a placement course, CLEP, or college course work.
3. See University College section of the catalog for course options that satisfy literature, natural science, and social science components.

Freshman Year		Sophomore Year		Junior Year - 1st Semester		Junior Year - 2nd Semester	
Course	Hr	Course	Hr	Course	Hr	Course	Hr
CHEM 1141, 1341	4	BIO 2440	4	NURS 3310, 3210	5	NURS 3440, 3240	6
PSY 1300	3	BIO 2451, 2452	8	NURS 3300	3	NURS 3460, 3260	6
FCD 1351 or PSY 3300	3	CHEM 1142, 1342	4	NURS 3320, 3220	5	NURS 3302	3
MATH 1315	3	COMM 1310	3				
ENG 1310, 1320	6	ENG Literature	3				
HIST 1310, 1320	6	NUTR 2360	3				
PHIL 1305 or 1320	3	POSI 2310, 2320	6				
PFW two courses	2	ART, DAN, MU, or TH 2313	3				
US 1100	1						
NURS 1200	2						
Total	33	Total	34	Total	13	Total	15

Junior Year - 3rd Semester		Senior Year - 1st Semester		Senior Year - 2nd Semester	
Course	Hr	Course	Hr	Course	Hr
NURS 3330	3	NURS 4350, 4250	5	NURS 4371	3
NURS 3441, 3241	6	NURS 4311, 4211	5	NURS 4380, 4280	5
		NURS 4370	3	NURS 4271	2
				NURS 4301	3
Total	9	Total	13	Total	13

Courses in Nursing (NURS)

1200 Introduction to Nursing. (2-0) Introduction to nursing, nature and expectations of professional education and practice. Opportunities in nursing and roles in the healthcare system. Factors to evaluate regarding career paths and options in relation to personal goals. Prerequisite to application for admission to nursing program.

3210 Age-Specific Health Assessment Skills. (0-6) Practice age-specific assessment, communication, and client health history skills. Experiences in simulation practice lab. Learn measures in privacy training. Co-requisite: NURS 3310.

3220 Age-Specific Nursing Skills. (0-6) Nursing process applied to activities of daily living, health assessment and accommodation of alterations. Sterile technique, safety, and comfort measures. Administration of medication. Basic nursing procedures for chronic and acute conditions. Experiences in simulation lab, primary care clinics, day care, school, after school programs, and nursing homes. Co-requisite: NURS 3320.

3240 Life Span Nursing Practicum. (0-6) Apply nursing process and critical thinking skills to alterations in acute and chronic conditions, life span client's health history and assessment with emphasis on therapeutic communication, intervention, data collection/analysis and documentation. Experiences include simulation lab, hospitals, ambulatory surgery, and homes for developmentally disabled persons, primary care clinics and health departments. Co-requisite: NURS 3440.

3241 Adult Health Nursing Practicum. (0-6) Clinical practice with adults experiencing acute life threatening conditions. Practice clinical skills, making judgments, critical thinking, taking health history and assessment with emphasis on therapeutic communication, intervention, data collection/analysis and documentation. Experiences include simulation lab, hospitals, surgery, intensive care units, rehabilitation, home health services and hospice settings. Co-requisite: NURS 3441.

3260 Psychiatric and Behavioral Health Nursing Practicum. (0-6) Apply critical thinking skills and therapeutic nursing measures to clients with psychiatric and behavioral health illness or issues. Practice assessment and therapeutic skills. Experiences in acute client psychiatric settings, outpatient and adult behavioral day care centers, and home health agencies. Co-requisite: NURS 4360.

3300 Nursing Profession I. (3-0) History of nursing in the context of the evolving healthcare system including the laws and ethical issues that impact on nursing licensure and practice. Interdisciplinary roles and client rights. Client and nurse workplace safety and balanced life style. Nursing decisions based on values, ethics, current technology, and evidence-based research. (WI)

3302 Research and Ethics. (3-0) Compare qualitative and quantitative research. Describe basic research process as foundation for evidence-based nursing practice and healthcare services. Identify systems for determining validity and reliability of research. Define key research terminology. Identify use of research techniques to monitor nurse sensitive client care indicators and leadership outcomes. (WI)

3310 Age-Specific Health Assessment. (3-0) Basic physical and psychosocial assessment and health/life style history of all ages, age-specific evidence-based health maintenance and prevention of illness, cultural and age variances, teaching-learning strategies for age-specific health promotion and maintenance. Critical thinking concepts. Co-requisite: NURS 3210.

3320 Age-Specific Nursing. (3-0) Therapeutic nursing processes across the lifespan including alternations in elimination, sensory stimulation and perception, rest, immune process, homeostasis, pulmonary gas exchange, musculoskeletal, renal function, fluid balance, cancer, and nutrition. Family systems theory. Complementary and alternative practices. Safe, therapeutic, legal and ethical medication use. Validation of evidence-based practice. Co-requisite: NURS 3220.

3330 Healthcare Systems. (3-0) Healthcare systems access and barriers, policies, nursing role in healthcare delivery systems, critical thinking skills applied to the healthcare system. Socialization to the professional nursing role. Continuing and formal education for advancement. Qualitative and quantitative research in relation to healthcare systems, nursing practice, and current topics.

3440 Life Span Nursing. (4-0) Life Span clients with chronic and acute alterations in sensory perception, metabolic/endocrine, dermatology, infections, immunology/allergy, gastrointestinal, eye, ears, nose and throat, effects of developmental disabilities on communications and life experiences, collaborative management of medications, therapeutic procedures/treatment management, restoration and rehabilitation, client and caregiver education. Validation of evidence-based practice. Co-requisite: NURS 3240, NURS 3260, NURS 3460.

3441 Adult Health Nursing. (4-0) Adults with acute life threatening conditions; collaborative management of therapies including medications, therapeutic procedures/treatment, client and caregiver education, restoration and rehabilitation. Critical thinking skills and judgment in critical care areas concerning cardiopulmonary, hepatic, urinary, oncology, neurology, fluid and electrolyte balance and status alterations. Co-requisite: NURS 3241.

3460 Psychiatric and Behavioral Health Nursing. (4-0) Psychiatric and behavioral health concepts applied to individuals, families and communities. Acute and chronic psychiatric illness and treatment modalities. Apply nursing process to behavioral health planning including therapeutic measures for psychiatric and behavioral health illnesses. Qualitative and quantitative research in relation to psychiatric and behavioral health. Co-requisite: NURS 4260.

4211 Nursing Care in Complex Health Environments Practicum. (0-6) Application of the nursing process, including critical thinking and technical skills, to clients with complex health status alterations. Collaborative management of complex health care issues to include use of complementary and alternative modalities. Co-requisite: NURS 4311.

4250 Childbearing Families/Pediatrics Practicum. (0-6) Practice critical thinking skills and judgment to care for childbearing and childrearing families. Experiences in simulation lab, out-patient obstetrical and pediatric services, hospital obstetric and client care areas including pre and post partum, and pediatrics, schools and after school settings with mainstreamed children with disabilities. Co-requisite: NURS 4350.

4271 Clinical Management Practicum. (0-6) Apply leadership and management skills in a variety of nursing care situations. Nursing unit leadership, staff assignments based on assessment of client needs, resources, priorities, and competencies of staff. Oversee and evaluate evidence-based nursing care provided. Co-requisite: NURS 4371.

4280 Community Health Nursing Practicum. (0-6) Health assessment and planning for diverse community groups including education, support groups/resources, advocacy, response to situational crises, bio-terrorism and environmental emergencies, group dynamics and impact on communities. Experiences in community or public health settings, community health centers, local health departments and community service organizations. Co-requisite: NURS 4380.

4301 Nursing Profession II. (3-0) Roles and competencies of nurses in the healthcare system. Professional organizations impacting public perceptions and policy. Quality initiatives to promote safe healthcare services, workplace safety, scope of services, staffing and ergonomics. Nursing self-governance and control of nursing practice and care environment. Prerequisite: NURS 3300.

4311 Nursing Care in Complex Health Environments. (3-0) Concepts related to complex alterations in health status and compensation. Use of therapeutic communication and education with diverse individuals and groups. Interventions to include use of complementary and alternative modalities. Co-requisite: NURS 4211.

4350 Childbearing Families/Pediatrics. (3-0) Clinical skills and judgment in assisting families and individuals during childbearing and rearing, health maintenance and promotion. Apply nursing process the families with children emphasis on development, culture and family structure variances and dynamics. Validation of evidence-based practice. Co-requisite: NURS 4250.

4370 Leadership and Management of Nursing Care I. (3-0) Leadership theories applied to unit and middle management leadership. Personal attributes for nursing leadership in direct client care areas, including adult care, obstetrics, pediatrics, and behavioral health. Qualitative and quantitative research in relation to leadership and middle management process and outcomes.

4371 Leadership and Management of Nursing Care II. (3-0) Leadership and management theories, trends and issues in healthcare settings, resources, priorities, unit management, delegation and assignment of staff, evaluation of staff performance, promoting performance improvement and safety. Validation of evidence-based leadership and management process and outcomes. Prerequisite: NURS 4370. Co-requisite: NURS 4271.

4380 Community Health Nursing. (3-0) Nursing process and strategies for health promotion for diverse groups, critical thinking skills related to community issues, addiction and rehabilitation, epidemiology and public health. Impact of biological weapons, disasters and emergencies on communities, healthcare systems and nursing practice. Validation of evidence-based practice. Co-requisite: NURS 4280.

Department of Physical Therapy

Health Professions Building 311
T: 512.245.8351 F: 512.245.8736
www.health.txstate.edu/PT

The Department of Physical Therapy is a graduate department offering a Doctor of Physical Therapy (DPT). For more information, contact the Department of Physical Therapy or visit http://www.health.txstate.edu/pt. While the Department offers no undergraduate degree, it does provide advisement to students interested in pursuing a graduate degree in Physical Therapy.

The requirements for admission include: 1) completion of a baccalaureate degree with a minimum 3.00 GPA in the last 60 hours of course work completed for that degree; 2) minimum 3.00 GPA in all science courses; 3) preferred minimum GRE of 1000; 4) completion of all prerequisite courses, including general psychology, abnormal or developmental psychology, statistics, medical terminology, human physiology and anatomy or human structure and function, vertebrate physiology or physiology of exercise, general chemistry I and II, and general physics I and II.

Courses in Physical Therapy (PT)

3400 Human Structure and Function. (2-6) A study of the structure and function of the human body with emphasis on the skeletal, muscular and nervous systems. Course focuses on anatomy and physiology of body systems of special interest to students preparing to be health professionals. Laboratory study of the human cadaver is included.

3610 Gross Anatomy. (3-9) Structural and functional aspects of regions of body study emphasized by means of dissection of human cadavers, lectures and demonstrations. Clinical significance of anatomical structures stressed.

Radiation Therapy Program

Health Professions Building 310A
T: 512.245.9081 F: 512.245.1477
www.health.txstate.edu/rtt

Degree Program Offered

BSRT, major in Radiation Therapy

The radiation therapist is a key member of the professional team, which uses various forms of radiation to treat cancer patients. Radiation therapy may be used alone, or in combination with surgery or chemotherapy, and is the treatment of choice for cure of many cancers. Because of sustained contact with patients, the radiation therapist has considerable responsibility in patient care, dietary counseling and treatment evaluation. The radiation therapist must also appreciate the significant psychological impact that cancer has on patients and their families. The program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT). The curriculum complies with the professional curriculum of the American Society of Radiologic Technologists.

The degree program, Bachelor of Science in Radiation Therapy with a major in Radiation Therapy, is a two- and one-half year program beginning in the junior year. The junior and senior years combine clinical experiences in the affiliated radiation therapy facilities with advanced academic study in the professional disciplines. The program is designed to prepare students for the technical, theoretical, and psychological aspects of this career. Students acquire the technical skills necessary to plan, deliver, and record a prescribed course of radiotherapy. Upon completion of the degree, students are eligible to apply to the ARRT national registry examination.

Admission Process

Admission to Texas State does not guarantee admission to the program. Admission to the program is competitive and selective. It is recommended that students arrange academic advising with a program advisor at least once prior to making application. The academic sequence begins during the fall semester. Enrollment is limited by student/faculty ratios in the clinical components of the program. The deadline for submission of applications is January 15.

1. Admission to Texas State
2. Satisfactory completion of all general education requirements and a minimum overall GPA of 2.75.
3. Completion of an application packet for admission.
4. Three letters of reference and a career goal statement.
5. Interview of selected candidates with admission committee.
6. 40 hour clinical observation.
7. Deadline for submission of applications is January 15.

In order to fulfill the requirements of the Radiation Therapy Program students must be able to perform the 13 Technical Standards indicated by the American Disabilities Act (refer to program website or department for more information).

Liability Insurance

1. Students who participate in the clinical and internship portions of the Radiation Therapy program are required to purchase liability insurance, or demonstrate proof that they are insured.
2. Students may obtain information on liability insurance from the program office.

Immunization Requirements

It is a policy of the College of Health Professions that each student must provide a Health Report completed by a physician, and must take certain immunizations before the student can be placed in a clinical or internship assignment. Information on these requirements and forms to be supplied may be obtained through the program office.

Bachelor of Science in Radiation Therapy
Major in Radiation Therapy
Minimum required: 131 semester hours

General Requirements:

1. Any student who did not complete at least two years of the same foreign language in high school is required to take 6-8 hours of the same foreign language.
2. See University College section of the catalog for course options that satisfy literature components.
3. Students must receive a "C" or higher in all RTT and support courses.
4. Students who do not meet requirements for computer proficiency must take HP 2351 or equivalent.

Freshman Year		Sophomore Year		Junior Year		Senior Year	
Course	Hr	Course	Hr	Course	Hr	Course	Hr
BIO 1320, 1421	7	PT 3400	4	RTT 3300, 3301, 3302, 3310, 3314	15	RTT 4310, 4321, 4322, 4330, 4331	
CHEM 1141, 1341	4	AT 3358 or RTT 3340	3	RTT 3320, 3321, 3350	9	RTT 4360, 4361, 4190, 4290	15
COMM 1310	3	PHYS 1110, 1320	4	RTT 4320, 4370, 4371	9		9
ENG 1310, 1320	6	ENG Literature	3				
US 1100	1	HA 4307, 4315	6				
HIM 2360	3	HP 3302 or equivalent	3				
HIST 1310, 1320	6	POSI 2310, 2320	6				
MATH 2417	4	PFW one course	1				
PHIL 1305 or 1320	3						
PSY 1300	3						
PFW one course	1						
ART, DAN, MU, or TH 2313	3						
Total	44	Total	30	Total	33	Total	24

Courses in Radiation Therapy Technology (RTT)

3300 Patient Care in Radiation Oncology. (3-0) This course will focus on basic nursing concepts involved in providing care for the cancer patient. Topics to be included in the class will be cancer as a chronic health problem, social roles and cancer, multidisciplinary approach to patient care, psychosocial dimension of cancer, in-treatment examinations, follow-up examinations, emergency management, chemotherapy and nutritional aspects of treating patients with cancer.

3301 Introduction to Radiation Oncology. (3-0) An overview of radiation oncology and the role of the radiation therapist. Presentations will orient the student to the physical and biological basis of radiation equipment, procedures, tumor pathology, and patient interaction. (WI)

3302 Radiologic Science and Medical Imaging. (3-0) This course will cover the principles governing production of radiation, interaction of radiation with matter, and protection of the radiation worker and patient from exposure. Basic principles of x-ray equipment, exposure factors, latent image formation, and processing of radiographs are presented. Prerequisite: Program Director's approval.

3310 Physics of Radiation Therapy I. (3-0) Students will learn the principles of radiation physics as they apply to the treatment and care of the cancer patient. Course will include a thorough review of x-ray production, fundamental principles, concepts and terminology. Topics studied include measurements, general principles, structure of the atom, structure of the matter, electrostatics, magnetism, electrodynamics, electromagnetism, rectification and production and properties of radiation and radiographic techniques.

3314 Radiation Therapy Sectional Anatomy. (3-0) The course provides instruction in identifying cross-sectional anatomy to develop the ability to make anatomic correlations between multiple planes of view. Major organs, lymphatics, vessels are emphasized as related to the clinical significance in the field of radiation therapy. Prerequisite: Admission to program, and PT 3400.

3320 Directed Clinical Learning I. (1-16) Students will observe the basic operations of the radiation oncology clinic while interacting with the multidisciplinary team members involved in providing optimal care to cancer patients. The student will be introduced to oncology terminology, equipment, and techniques used for treatment.

3321 Directed Clinical Learning II. (1-16) Students will gain additional skills in clinical procedures, interaction with patients and professional personnel. Students apply knowledge from previous clinical learning experience under the supervision of a registered radiation therapist. Students are tested on intermediate clinical radiation therapy skills.

3340 Oncologic Pathology. (3-0) This course introduces the concept of disease, histology, types of growth, etiology and biological behavior of neoplastic diseases. Topics: the inflammatory process and clinical patterns, types of edema and etiology hormones related to growth; characteristics of benign and malignant tumors; histological grading; and pathophysiology across the lifespan and associated diseases.

3350 Radiobiology. (3-0) This course will cover the principles of cell response to radiation, including tissue sensitivity, survival, repair and the latent effects of irradiated tissue. Topics to be covered include the development of radiation science, cellular targets for radiation action, target theory, physical/chemical factors affecting radiation response, biological factors, repair and recovery, fractionated doses and dose rate, early/acute effects of whole body exposure, late/chronic effects of whole body exposure, and radiation protection dose guidelines.

4190 Professional Issues in Radiation Therapy. (1-0) This capstone course provides a comprehensive review of the program curriculum and clinical practice in the field. Current radiation therapy treatment management techniques and issues are presented for analysis.

4290 Radiation Therapy Seminar. (2-0) This writing intensive course provides instructions in research strategies, critical review, and analysis of peer-review publications, manuscript style, and publication guidelines according to the American Society of Radiologic Technologists (ASRT) professional journal. Emphasis is placed on critical thinking and building a foundation of research skills. (WI)

4310 Physics of Radiation Therapy II. (3-0) Students will continue to learn the principles of cell response to radiation. Topics covered will include properties of x-ray and gamma radiation, radiation units, x-ray production, photon interactions, beam characteristics, radioactivity, treatment units, and particle irradiation. Prerequisite: RTT 3310.

4320 Directed Clinical Learning III. (1-24) Students will improve their skills in clinical procedures. Progressive interaction with patients and professional personnel are monitored as students practice radiation therapy in a supervised setting. Additional areas include problem solving, identifying machine components and basic side effect management. Students will demonstrate competence in beginning, intermediate, and advanced procedures.

4321 Directed Clinical Learning IV. (1-24) The course provides students the opportunity to continue to develop confidence and increased skill in simulation and treatment delivery. Students will demonstrate competence in beginning, intermediate, and advanced procedures in both areas. Students will participate in advanced and specialized treatment procedures.

4322 Directed Clinical Learning V. (1-24) This course is the final in a series of five directed clinical courses. The student will complete the clinical training by practicing all the skills learned in classroom and clinical instruction. The student will continue demonstrating proficiency while completing the Skills Competency Checklist.

4330 Quality Assurance. (3-0) Students will study quality assurance tests related to patient charts, treatment accessories, patient communication devices, machine reading and safety devices. Emphasis on quality control procedures to include Continuous Quality Improvement (CQI), Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and responsibilities of each team member in relation to quality assurance duties.

4331 Operational Issues in Radiation Therapy. (3-0) Course content is designed to focus on various radiation therapy operational issues. Accreditation, CQI development and assessment techniques will be presented. Human resource issues and regulations impacting the radiation therapist will be examined. Topics include the role of network information systems within the radiation oncology department.

4360 Dosimetry I. (3-0) This course will cover the basic concepts in treatment planning and clinical dosimetry. Students will learn to identify treatment preparation processes and needs for beam modifying devices. Students will also be taught isodose charts for several treatment arrangements and be able to calculate a variety of external beam treatment formulas.

4361 Dosimetry II. (3-2) Students will learn additional concepts in treatment planning and clinical dosimetry addressed in Dosimetry I. Computerized treatment planning applications will enhance the understanding of medical dosimetry.

4370 Clinical Radiation Oncology I. (3-0) The first of a two-part course, this course advances the student's knowledge of neoplastic disease management. Instruction will focus on the regional anatomy and physiology, epidemiology and etiology, detection and diagnosis, diagnostic procedures, histopathology, patterns of spread principles of treatment, staging, and prognosis. (WI)

4371 Clinical Radiation Oncology II. (3-0) The second of a two-part course, this course is a continuation of disease specific instruction. Instruction will focus on the regional anatomy and physiology, epidemiology and etiology, detection and diagnosis, diagnostic procedures, histopathology, patterns of spread, principles of treatment, staging, and prognosis. Prerequisite: RTT 4370. (WI)

Department of Respiratory Care

Health Professions Building 351
T: 512.245.8243 F: 512.245.7978
www.health.txstate.edu/rc

Degree Program Offered

BSRC, major in Respiratory Care

The degree program prepares students to treat patients with deficiencies or abnormalities in respiration. Therapists work for hospitals, clinics, and home health agencies.

Respiratory care majors take classes on campus and gain clinical experience in area hospitals. RC courses must be taken in sequence. Students taking courses prior to applying for admission to the RC program should see an RC adviser for counseling. Students who have completed an associate degree program elsewhere may be eligible for transfer to Texas State's baccalaureate degree program. For information on this option, see the RC department chair. Texas State's respiratory care program is accredited by the Commission on Accreditation for Respiratory Care (COARC) and qualifies graduates to take the appropriate exams offered by the National Board for Respiratory Care when all requirements have been met.

The Department of Respiratory Care also offers a course of study in polysomnography (sleep studies) that is fully accredited by COARC and qualifies students completing the courses to take the national board exams immediately upon completion. The polysomnography course of studies is comprised of six courses (18 credit hours) with three courses offered each fall and spring.

Admission to the polysomnography course of studies requires current state or national credentialing in a health profession involving patient care or interaction. Admission to the course of studies begins each fall.

Admission Process

Application must be made to the program in respiratory care in addition to regular university admission procedures. All students entering this program must be accepted by both the university and the respiratory care program. All applicants will be notified of their admittance status. Enrollment in the respiratory care program is limited by student/faculty ratio in the clinical phases of the program. All respiratory care courses must be taken in sequence and completed with a grade of "C" or higher.

Liability Insurance

1. Students who participate in the clinical portion of the respiratory care program are required to purchase liability insurance, or demonstrate proof that they are insured.
2. Students may obtain information on liability insurance from the departmental office.

Immunization Requirements

It is a policy of the College of Health Professions that each student must provide the College Health Report completed by a physician, and must complete certain immunizations before the student can be placed in a clinical or internship assignment. Information on these requirements and forms to be submitted may be obtained through the departmental office.

Bachelor of Science in Respiratory Care
Major in Respiratory Care
Minimum required: 139 semester hours

General Requirements:

1. Any student who did not complete at least two years of the same foreign language in high school is required to take 6-8 hours of the same foreign language.
2. Any student who did not complete one year of general computer science (literacy) course in high school is required to take a placement test, CLEP, or college course work.
3. See University College section of the catalog for course options that satisfy literature components.

Freshman Year - 1st Semester		Freshman Year - 2nd Semester		Freshman Year - Summer		Sophomore Year - 1st Semester	
Course	Hr	Course	Hr	Course	Hr	Course	Hr
ENG 1310	3	ENG 1320	3	RC 1316	3	HIST 1310	3
BIO 1320 or 1421	3-4	BIO 2430	4	RC 1445	4	MATH 1315	3
US 1100	1	PSY 1300	3			RC 1321, 2355	6
HIM 2360	3	RC 1135, 1314, 1315	7			RC 3331	3
RC 1313	3						
Total	13-14	Total	17	Total	7	Total	15

Sophomore Year - 2nd Semester		Sophomore Year - Summer		Junior Year - 1st Semester		Junior Year - 2nd Semester	
Course	Hr	Course	Hr	Course	Hr	Course	Hr
HIST 1320	3	PHYS 1310, 1110	4	BIO 2400 or 2440	4	POSI 2320	3
PFW course	1	RC 2311	3	POSI 2310	3	CHEM 1141, 1341	4
PHIL 1305 or 1320	3	RC 4220	2	RC 2375, 3311, 4315	9	RC 3352, 3365, 4341	9
RC 2352, 2365	6						
RC 3330	3						
Total	16	Total	9	Total	16	Total	16

Junior Year - Summer		Senior Year - 1st Semester		Senior Year - 2nd Semester	
Course	Hr	Course	Hr	Course	Hr
RC 3375	3	ART, DAN, MU, or TH 2313	3	COMM 1310	3
		Statistics	3	PFW course	1
		ENG Literature	3	RC 4246, 4320, 4350	8
		RC 3310, 4330	6		
Total	3	Total	15	Total	12

Courses in Respiratory Care (RC)

1135 Respiratory Care Clinical Laboratory I. (0-16) Introduction to clinical skills, including vital signs, infection control procedures, and basic patient care techniques. This course prepares the student for direct patient care to be performed in more advanced courses.

1313 Introduction to Respiratory Care. (3-0) Introductory course to field of respiratory care. Designed to acquaint student with responsibilities of technician as a member of health team. Airway management, gas therapy, and humidity therapy will be covered.

1314 Respiratory Care Instrumentation I. (3-0) Designed to teach the design, function, and operation of basic respiratory care equipment. Regulators, flow meters, humidifiers, and nebulizers will be covered.

1315 Basic Technology in Respiratory Care. (3-0) Designed to teach students basic principles of respiratory care techniques and basic operations of equipment. Artificial ventilation, cardiopulmonary resuscitation and chest physiotherapy will be covered.

1316 Respiratory Care Instrumentation II. (3-0) Acquaints students with concepts of design, function, and operation of more advanced respiratory care equipment. Pressure cycled ventilators, spirometers, airways, cardiopulmonary resuscitation equipment will be covered.

1321 Introduction to Pharmacology. (3-0) Designed to familiarize students with general principles of drug action, methods of administration, elements of dispension and with adverse reactions to drugs. Specifically designed for respiratory care practitioners.

1445 Respiratory Care Clinical Lab II. (0-32) Direct patient care is performed under close supervision in a non-critical setting. Routine procedures are performed, including delivery of aerosolized medications, oxygen therapy, incentive spirometry, postural drainage, and chest percussion.

2311 Cardiopulmonary Disease I. (3-0) Introduction to the assessment and treatment of the patient with respiratory disease. The course focuses on the signs, symptoms, causes, and treatment of chronic obstructive pulmonary disease, diseases of the nervous system, respiratory muscles and occupational lung diseases. In addition, the assessment and treatment of patients with cardiopulmonary disease to include restrictive lung disease, cardiac disease, infectious disease, and lung cancer.

2352 Cardiopulmonary-Renal Anatomy and Physiology. (3-0) Detailed study of the structure and function of the respiratory, cardiovascular, and renal systems. Prerequisite: BIO 2430 or instructor approval.

2355 Respiratory Care Practice I. (0-16) Student gains skill in clinical procedures, interactions with patients and professional personnel as he practices, under supervision, respiratory care therapeutic modalities in a healthcare setting. Becomes familiar with various RT aspects of patient care as presented in medical/surgical and pediatric clinical situations.

2365 Respiratory Care Practice II. (0-16) Students will perform respiratory therapy procedures in a healthcare institution under the supervision of a Respiratory Therapist. Preparatory instruction is provided for mechanical ventilation and other primary critical care procedures.

2375 Respiratory Care Practice III. (0-16) A supervised clinical education experience in which the student organizes and administers advanced respiratory therapeutics on assigned patients in adult critical care. Diagnostic procedures, including arterial blood gas procurement and measurement, bedside physiologic monitoring, airway care, basic pulmonary function testing, as well as monitoring and maintenance of ventilator parameters are performed.

3310 Cardiopulmonary/Renal Gross Anatomy. (2-3) Designed to acquaint the student with the anatomy and physiology of the cardiovascular, pulmonary, and renal systems. Students will participate in the cadaver dissection and radiographic anatomy by matching cadaver cardiopulmonary structures with radiographic findings. Prerequisites: BIO 2430 and RC 2352.

3311 Applied Pathology. (3-0) Lecture series and case presentation related to pathophysiology, etiology, symptoms, diagnosis and treatment of selected pulmonary disease entities, cardiac diseases, neurologic disease processes and occupationally acquired disease entities as they relate to respiratory function. Clinical Simulation software utilized for clinical patient assessment, diagnostic data gathering and treatment. (WI)

3330 Advanced Respiratory Care Technology. (3-0) In-depth study of respiratory physiology comparing the cardiopulmonary system of the adult, infant, and fetus. Emphasis is placed on how to evaluate, treat and monitor patients with respiratory insufficiency or failure.

3331 Advanced Respiratory Care Instrumentation. (3-0) A comprehensive focus on advanced equipment and rehabilitation technology utilized in the critical care, homecare, pulmonary rehabilitation and blood gas lab settings. Lectures and class activities will detail hardware for hemodynamic monitoring, supplemental oxygen administration, noninvasive monitoring, blood gas measurement, quality control, quality assurance and various other support advances in healthcare.

3352 Advanced Ventilator Concepts. (3-0) In-depth study of specific ventilators used in adult, pediatric and neonatal ventilation to include ventilator classification, method of operation, parameter interrelationships and ventilator patient monitoring. Lectures and class activities will focus on ventilator analysis of several contemporary volume, time, pressure, and flow-cycled ventilators.

3365 Respiratory Care Practice IV. (0-16) Advanced clinical education in the intensive care setting in which the student monitors and administers critical care therapeutics on assigned patients in the adult and neonatal intensive care setting. Physician input and pulmonary rounds assist students in theory and application of care for the critically ill patient.

3375 ICU Internship. (0-16) Through affiliations with agencies, hospitals and selected treatment centers the student interns in the intensive care setting by monitoring and administering critical care therapeutics. Analysis and clinical application of advanced ventilator care of patients is emphasized along with patient care diagnostics and management in the ICU.

4211 Polysomnography Instrumentation I. (0-2) Designed to teach the function, operation, and design of electroneurodiagnostic equipment. Monitoring devices, electrode application, and patient connection will be covered in detail. Prerequisite: Departmental approval.

4214 Polysomnography Instrumentation II. (0-2) Advanced study of waveform characteristics and montage development,

filters, and PSG electronics. Signal pathways, reference electrodes, impedance checking, and filter settings in calibration waves will be covered. Prerequisite: Departmental approval.

4220 Cardiovascular and Pulmonary Diagnostics. (2-0) Examination of non-invasive monitoring technology in respiratory care, hemodynamic monitoring, acid-base interpretation of blood gas and application, and pulmonary function test interpretation.

4246 Respiratory Care Internship. (0-16) Provides the student with opportunities to gain clinical experience in specialty areas to include pediatrics, adult critical care, neonatal intensive care, pulmonary function diagnostics, home care, subacute care, pulmonary rehabilitation or polysomnography. Specific specialty offerings will be based on clinical availability. Repeatable for credit with different emphasis.

4310 Fundamentals of Polysomnography. (3-0) Introduction to the physiology of sleep, including sleep neurology, sleep architecture, and the classification of sleep disorders. Review of basic cardiac physiology and ECG arrhythmia recognition. Sleep pathologies will be discussed according to etiology, pathophysiology, symptoms, diagnosis, treatment, and prognosis. Prerequisite: Departmental approval.

4313 Polysomnographic Therapeutic Intervention. (3-0) In-depth study of the treatments available for sleep apnea, including CPAP, BiPAP, oxygen therapy, patient adjunctive fitting, surgical intervention, and the role of the sleep tech in titration. Special attention will be given to titration algorithms, nocturnal seizure disorder studies, REM behavior disorder studies, MSLT's and MWT's. Prerequisite: Departmental approval.

4315 Neonatal Respiratory Care. (3-0) In-depth study of neonatal intensive care, pediatric/neonatal respiratory emergencies, chronic pediatric respiratory diseases, fetal lung development, fetal circulation, changes at birth, neonatal respiratory disease and its management, congenital defects and other related aspects.

4320 Contemporary Issues in Cardiopulmonary Care. (3-0) This course is designed to prepare senior-level students for the dynamic evolution of respiratory care as a profession. It will build on previous didactic courses and clinical experiences. It will examine opportunities for respiratory therapists in continuing care and home care and also cover the impact and role of legislation, regulations, professional organizations and politics in respiratory care. Ethics of patient care and professional behavior will be explored. Repeatable for credit with different emphasis. (WI)

4330 Pulmonary Rehabilitation. (3-0) An introduction to medical, ethical, and reimbursement issues of respiratory care pulmonary rehab and home care. The role of the therapist in cost containment, treatment requirements, and discharge planning will be addressed. Frequently applied respiratory and durable medical equipment will be discussed in detail.

4341 Respiratory Care Seminar. (3-0) Individual and group presentation of selected case studies by the student to physicians, therapists and other students. Emphasis placed on total patient management with etiology, symptoms, pathophysiology, diagnosis, and treatment of specific diseases such as asthma, pulmonary edema, CHF, CF, COPD, ARDS, neurologic diseases, pulmonary fibrosis, pneumonia, bronchiectasis, AIDS and drug overdose. (WI)

4350 Respiratory Care Research. (3-0) An introduction to research methods, experimental inquiry, and naturalistic observations. This course is designed to acquaint the student with the necessary skills to conduct research in respiratory care. The primary purpose is to provide a foundation from which the student will critique, develop, and apply multiple research strategies. Repeatable with different emphasis. Prerequisite: HP 3302 or equivalent.

4412 Clinical Polysomnography-Sleep Staging I. (0-10) Direct patient diagnostic monitoring is performed under close supervision in a sleep lab. Differential amplifiers, amplifier calibration, artifact correction, and the professional role of the sleep tech will be demonstrated. Prerequisite: Departmental approval.

4415 Clinical Polysomnography-Sleep Staging II. (0-10) Advanced clinical education in sleep staging rules, light, delta, and REM sleep scoring and analysis. EEG, EMG, ECG, and respiratory events will be discussed in-depth and are components of the polysomnogram report. Prerequisite: Departmental approval.