

**Texas Tech University Health Sciences Center**

*School of Pharmacy*

*Doctor of Pharmacy Program*



*2023-2024*



# TEXAS TECH SYSTEM

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## **MISSION STATEMENT OF THE HEALTH SCIENCES CENTER**

As a comprehensive health sciences center, our mission is to enrich the lives of others by educating students to become collaborative healthcare professionals, providing excellent patient care, and advancing knowledge through innovative research.

## **VISION STATEMENT OF THE HEALTH SCIENCES CENTER**

Texas Tech University Health Sciences Center will strengthen its national reputation as it seeks to promote healthier communities across West Texas and beyond.

## **SCHOOL OF PHARMACY ADMINISTRATION**

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## Dean's Message

The residents of the Texas Panhandle worked for many years to build a pharmacy school. It was the vision of a dedicated group of pharmacists, citizens, and legislators to provide pharmacy education in West Texas and beyond. Today that vision has become evident on the horizon of the best small town in Texas – Amarillo, in the lower plain of Lubbock, the busy streets of Dallas/Fort Worth, and the rolling plains of Abilene. The Texas Tech School of Pharmacy has made a significant impact on the health and well-being of many Texas citizens.

Faculty, staff, and, yes, doctoral candidates have come together to provide for the future of pharmacy and patient care. We offer an innovative curriculum delivered by a distinguished team of clinical and research faculty. We have progressive teaching methods and technologies that prepare students for pharmacy practice today and for the years to come. Our educational facilities have state-of-the-art equipment and teaching tools. You will be inspired and intellectually challenged over the next four years.

I invite you to join in the excitement of the Texas Tech University Health Sciences Center Jerry H. Hodge School of Pharmacy. You will partner with other health care professionals to provide patient care. You will make a difference and we want to provide you with the knowledge and skills to make that difference be the very best.

### **SCHOOL OF PHARMACY PHILOSOPHY**

Traditionally, the pharmacist's role has been that of a dispenser of medications. However, this traditional method of practice is no longer adequate to ensure safety and effectiveness in the use of medications and health devices. The focus of practice must change from one of product distribution to a more expansive duty, assuming the responsibility for our patients' outcomes from the medications we dispense.

Health care reform has put an emphasis on primary health care. This emphasis coupled with a lack of access, increasingly rising costs, and a concern for quality is placing the pharmacist in an important role as a member of the primary health care delivery team.

Pharmacists are located in most rural communities and throughout inner cities and urban sprawl across the country. This physical placement of the pharmacist, who is trained in delivering comprehensive care to the public, allows access to primary health care where it is critically lacking. The role of the pharmacist as a member of the primary health care team does not replace the physician, physician assistant, or nurse practitioner but enhances their effectiveness. The pharmaceutical services provided in this changing arena include participating in the drug therapy decision process through recommending therapeutic objectives, selecting the most appropriate drug product to achieve the desired therapeutic outcomes given the patient's unique characteristics, determining dose and dosage schedule, selecting the drug product source of supply and drug preparation, and monitoring the patient's response to the therapy so that the patient receives the optimal benefits with minimal adverse drug effects. Texas Tech University Health Sciences Center (TTUHSC) School of Pharmacy offers the degree of Doctor of Pharmacy (Pharm.D.) with this expanded role of the pharmacist in mind. The effective delivery of essential primary health care services requires a greater responsibility of the pharmacist and a greater depth and breadth of education to support it.



It is a goal of all educators to foster within students the desire to learn and the ability to discover. Our curriculum has been designed to encourage intellectual development and help the student become a competent and skilled professional pharmacist. This is accomplished through conceptual competence, technical competence, integrated competence, and career marketability.

Pharmaceutical education must provide students a fundamentally strong science base enabling them to understand the progression of diseases and how drug therapy can influence or reverse this process.

Pharmacists evaluate clinical studies and use data to reach conclusions regarding a variety of issues.

Graduates must be mathematically competent in the resolution of problems related to drug therapy.

Analytical thinking must be cultivated allowing today's pharmacy pharmacist to be effective in decision making. Communication skills are essential in preparing the student to be an effective pharmacist.

Graduates must have an understanding of the social context in which their profession is practiced. They must learn to first listen in order to effectively convey information regarding drug therapies. There must also be sensitivity to patients of all socio-economic levels and cultural backgrounds whose native language is not English.

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TTUHSC School of Pharmacy's program is student centered, focusing on problem-based educational strategies. The curriculum provides an integrated course context of pathophysiology, pharmacology, medicinal chemistry, and therapeutics, built on a solid understanding of the biomedical sciences. It offers expanded practice management instruction and clinical experiences early and throughout the four-year professional program. Each of the curricular and instructional strategies has been precisely balanced to give the academic and clinical preparation to optimally succeed in any pharmaceutical profession.



## **MISSION STATEMENT**

Our mission is to enhance the lives of patients through innovation and excellence in pharmacy education, practice, and research.

## **VISION STATEMENT**

To transform health care and the lives of the patients we serve.

## **CULTURE STATEMENT**

Our culture - the way we live and act - is created by a strong commitment to a set of five core values defined institution-wide by TTUHSC (One team, Kindhearted, Visionary, Integrity, Beyond Service). Our program endorses these shared values, and as a community of learners, we are committed to...

- The creation of a student-centered, positive learning community in which each person is dedicated to the pharmacy profession and values excellence in education, practice and research. (One team)
- Collaborative interpersonal relationships - defined as mutual learning, open communication and shared responsibility among faculty, administration and students. (One team, Kindhearted, Integrity)

- Compassionate care for each patient and an unwavering dedication to meet each patient's pharmaceutical care needs. (Kindhearted, Beyond Service)
- Community involvement and serving the health care needs of the citizens of West Texas. This perspective will be reflected in our doctoral candidates who have a community perspective supported by a sound biologic and behavioral understanding of health care. (Beyond service)
- Work characterized by its excellence and our willingness to change, be progressive, make timely and vigilant decisions, and evaluate our performances against stated goals. (Visionary, Integrity)
- Academic and healthcare environments that encourage open debate and dialogue, the introduction of new ideas and practices, innovation through collaboration, and an unwavering commitment to self-improvement, self-renewal and life-long learning. (Visionary, Integrity)

## **OUTCOMES**

The results of embracing and living the TTUHSC School of Pharmacy values are excellence, innovative pharmaceutical education, preparation of professionals with an unwavering ethical foundation, a positive, rewarding and stimulating work environment, and a noticeable and positive impact on the communities in which we work, study, and live as well as academic and healthcare environments that encourage open debate and dialogue, the introduction of new ideas and practices, innovation through collaboration, and an unwavering commitment to self-improvement.

## **ACCREDITATION**

The Doctor of Pharmacy Program of the Texas Tech University Health Sciences Center is fully accredited by the Accreditation Council for Pharmacy Education (ACPE). Questions about the accreditation status of the Texas Tech University Doctor of Pharmacy Program may be directed to the Accreditation Council for Pharmacy Education at 135 S. LaSalle Street, Suite 4100, Chicago, Illinois 60603 (telephone 312-664-3575).

Texas Tech University Health Sciences Center is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award baccalaureate, masters, doctoral, and professional degrees. Degree-granting institutions also may offer credentials such as certificates and diplomas at approved degree levels. Questions about the accreditation of Texas Tech University Health Sciences Center may be directed in writing to the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097, by calling (404) 679-4500, or by using information available on SACSCOC's website ([www.sacscoc.org](http://www.sacscoc.org)).

A member of the Texas Tech University System, TTUHSC has been accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) as a separate institution from Texas Tech University since 2004. TTUHSC received its last reaffirmation of accreditation from SACSCOC in 2019. TTUHSC will submit a Fifth-Year Interim Report in the spring of 2025.

## **PURPOSES AND FUNCTIONS**

The purpose of the program is to prepare entry-level pharmacy practitioners with minimum competencies in the following areas:



1. Provide patient centered care which is defined as the ability to design implement, monitor, evaluate, and adjust pharmacy care plans as well as manage a patient-centered practice to include establishing, marketing, and being compensated for medication therapy management and patient care services rendered.
2. Manage human, physical, medical, informational, and technological resources, which is defined as the ability to ensure efficient, cost-effective use of resources in the provision of patient care.
3. Manage medication-use systems, which is defined as the ability to apply patient-and population-specific data quality improvement strategies, medication safety and error reduction programs, and research processes to minimize drug misadventures and optimize patient outcomes; to participate in the development of drug use and health policy; and to help design pharmacy benefits.
4. Promote the availability of effective health and disease prevention services and health policy, which is defined as the ability to apply population-specific data, quality improvement strategies, informatics, and research processes to identify and solve public health problems and to develop health policy.
5. Provide population based care, which is defined as the ability to develop and implement population-specific, evidence based disease management programs and protocols.

## **GENERAL INFORMATION**



### History

The Texas Tech University Health Sciences Center was created with the establishment of the School of Medicine by the 61st Texas Legislature in May, 1969 as a multi-campus system, establishing Lubbock as the central administrative unit with other regional campuses. The School of Medicine formally opened in 1972. The Amarillo campus accepted medical residents as follows: 1974 - Family Medicine, 1978 - Pediatrics, 1979 - OB, 1982 - Internal Medicine and Psychology/Neurology, 1988 - Internal Medicine/ Pediatrics. The first medical students entered class in Amarillo in 1978.

The School of Nursing was initiated with the first class in 1981. Nursing education is focused in Lubbock and Odessa. West Texas A&M University and Amarillo College offer nursing programs at the associate, baccalaureate, and masters level in the Panhandle.

In 1993, the 73rd Texas Legislature approved an expansion of the School of Allied Health, which was established in 1983, and a new School of Pharmacy. Pharmacy is the first academic program of the University to be administratively based outside the main campus in Lubbock. These two schools have expanded the missions of Texas Tech University Health Sciences Center at Amarillo.

The Allied Health curriculum at Amarillo currently is divided into two programs, physical therapy and occupational therapy. Other programs offered by the school at other campuses include Medical Technology, Communications Disorders, and Emergency Medical Technology.

## The School of Pharmacy

The School of Pharmacy accepted its first class of 64 full-time students into the professional program beginning Fall, 1996. Currently, 155 students are admitted once each year in the fall semester. Students may be admitted to the Amarillo, Abilene or Dallas campus as first year students. If admitted to the Amarillo campus, students spend their first two years on the Amarillo campus then complete their third and fourth years on one of the regional campuses – Amarillo, Dallas/Fort Worth, or Lubbock. If assigned to Abilene or Dallas, most students will stay at that campus for the duration of their pharmacy education, with some possible clerkship experiences at regional campuses. The School of Pharmacy has more than 620 students enrolled in professional and postgraduate programs. The School of Pharmacy employs approximately 94 full-time equivalent faculty, 45 post-doctoral pharmacy residents, and 37 graduate teaching and research assistants; approximately 67 staff serve the students and programs of the School.

### Amarillo

The School of Pharmacy's Amarillo program is based in two buildings: The Pharmacy building, a 102,000 sq. ft. building (built in 1996) on the Amarillo campus of the Texas Tech University Health Sciences Center, and the adjacent Pharmacy Academic Center, a 23,000 sq. ft. building (built in 2009). The original pharmacy building was provided through funds donated by the people of Amarillo. The Pharmacy building features a 240-seat lecture center and four classrooms offering interactive video conferencing capabilities and network capabilities. In addition, the Pharmacy Academic Center features two 120-seat classrooms. These classrooms allow students to actively participate with any campus' instruction while also having computer access to images via the Internet. Other facilities include a Simulation Center, multiple small group conference/study rooms, the Texas Pharmacy Museum, teaching laboratories (drug formulation, sterile products), and student lounges.

The campus is comprised of the Schools of Pharmacy, Medicine, Allied Health, Nursing, and the Graduate School of Biomedical Sciences. The Texas Tech School of Veterinary Medicine is located directly north of the school. Amarillo's three major teaching hospitals are located ~ 1 mile from the school. Other entities include the Texas Tech Physicians Clinic, the Amarillo Research Building, the Laura Bush Institute for Women's Health, and the TTUHSC Regional Library.

### Abilene

The Abilene campus is housed in a 35,000 sq. ft. building located adjacent to the Hendrick Medical Center North campus. It offers four video conferencing classrooms, multiple study rooms, a teaching laboratory for compounding and dispensing drugs, a physical assessment laboratory, a sterile compounding laboratory, a virtual anatomy laboratory, a student lounge, and a 4,600 sq. ft. research laboratory. The Abilene campus is comprised of the School of Pharmacy, School of Nursing, School of Population and Public Health, and a Simulation Center.

### Dallas / Fort Worth

The Dallas/Fort Worth campus supports all four years of the Pharmacy program. Students may complete all four years in Dallas, or may choose to complete their last two years in Dallas after the first two years in Amarillo or Abilene. The School has two buildings; one on the campus of the Dallas Veterans Affairs

Medical Center and the other is within the central Dallas Medical District. The Pharmacy School building on the Dallas VA campus is approximately 10,000 sq. ft. and houses a P3 classroom linked to the other campuses, administrative and faculty offices, small group study rooms, and a student lounge. The building located within the Dallas Medical District is a 40,000 sq ft complex with multiple classrooms for the P1 through P3 years linked to other campuses, a compounding lab, sterile products lab, virtual anatomy lab, small group study rooms, administrative and faculty offices, and student lounges. Students are able to complete clinical practice experiences among the numerous hospitals, clinics, and community pharmacies throughout the Metroplex in an interprofessional environment.

### Lubbock

The Lubbock campus is part of the Texas Tech University Health Sciences Center main campus. It is the main campus for the Schools of Medicine, Nursing, Health Professions and Graduate School of Biomedical Sciences. Lubbock students have access to all facilities and programs that a comprehensive health sciences center and major academic campus of more than 40,000 students offer. Pharmacy students share classrooms, clinics, and hospitals with medical, nursing, and other allied health professions students.

## **AFFILIATED TEACHING HOSPITALS**

School of Pharmacy faculty and students provide patient care in the following hospitals:



### Amarillo VAMC

The Amarillo Department of Veterans Affairs Medical Center is a 254 bed general medicine and surgery facility employing 850 people. It offers health services to a large geographic area encompassing the Texas Panhandle as well as parts of New Mexico, Oklahoma, Colorado, and Kansas. The medical center has a highly complex pharmacy offering a wide variety of service to include total computerization, unit dose, I.V. admixture, oncology preparation, drug information, investigational drugs, and an open front outpatient pharmacy. Special programs are pharmacist-directed lipid, ulcer, and anticoagulant clinics.

### Baptist Saint Anthony's Health System

This combined healthcare facility is jointly licensed as a 746-bed acute care medical surgical facility. Current pharmacy practice includes the traditional aspect of unit dose distribution as well as clinical services such as target-drug monitoring, a decentralized pharmacy, drug information, clinical interventions, creatinine-clearance estimations, and dosage adjustment recommendations. Staff pharmacists also participate in patient teaching programs.

### Northwest Texas Healthcare System

Northwest Texas Healthcare System is a 495 bed acute care facility and medical center recognized

nationally for heart, emergency, stroke, and children’s care. The hospital is a designated tertiary care academic institution with a certified Advanced Primary Stroke Center and Advanced Level III Trauma designation. Northwest Children’s Hospital provides over 40 pediatric subspecialties including Pediatric and Neonatal Intensive Care. The system includes comprehensive emergency and intensive care services and provides cardiac care through its accredited Heart Hospital.

## **ABILENE**

### Hendrick Health

Hendrick Health was founded in 1924 as a not-for-profit healthcare institution in response to a community need for quality healthcare. Throughout the decades, Hendrick has grown with the community. In 2020, Hendrick Health expanded to a three hospital system—Hendrick Medical Center North and Hendrick Medical Center South in Abilene; and Hendrick Medical Center Brownwood in Brownwood. Hendrick Health North is a 522-bed medical center and Hendrick Health South is a 231-bed facility. Hendrick Health also encompasses a rehabilitation center, cancer center, hospice care facility, a level 2 Neonatal Intensive Care Unit, and multiple hospital-based specialty ambulatory care clinics which serve as training sites for PharmD students.



## **DALLAS/FORT WORTH**

### VA North Texas Health Care System

The VA North Texas Health Care System (VANTHCS) hospital is the primary teaching site of Texas Tech Health Sciences Center School of Pharmacy Dallas Campus. The School of Pharmacy’s VA building is physically located on the campus of the VANTHCS, and many clinical pharmacy faculty practice and teach at the VA facilities. The mission of the VANTHCS is to provide quality patient care to veterans, facilitate an environment for excellence in education, establish a climate which enhances research, and support the Department of Defense in a national emergency.

### Baylor Health Care System

The Baylor Health Care System has facilities located in Dallas, Fort Worth, Garland, Grapevine, Irving, Waxahachie, and Plano. All of these sites are exemplary, experiential clerkship sites utilized by the School of Pharmacy. Baylor Dallas has exemplified excellence in patient care, medical education, research, and community service. *U.S. News & World Report* has ranked Baylor Dallas among the best hospitals in the United States. Baylor Dallas is ranked among the 50 top hospitals in each of the following six specialties: digestive disorders (ranked 18); gynecology (19); heart & heart surgery (26); kidney disease (39); neurology & neurosurgery (34); and orthopedics (20).

## Texas Health Resources

Texas Health Resources (THR) is one of the largest faith-based, nonprofit healthcare delivery systems in the United States. The system serves more than 6.2 million people living in 29 counties in north central Texas. In 2003, more than one in five area residents receiving in-patient care sought treatment at a THR hospital. THR was formed in 1997 with the merger of Fort Worth-based Harris Methodist Health System and Dallas-based Presbyterian Healthcare Resources. Later that year, Arlington Memorial Hospital joined the THR system. THR has 13 hospitals with 2,405 licensed hospital beds, employs more than 17,300 people, and counts more than 3,200 physicians with active staff privileges at its hospitals.

## Methodist Health Systems

Methodist Health System offers health and hope to more than 300,000 people a year at its hospitals and family health centers in North Texas. From education and health screenings to multi-organ transplants and advanced cancer treatment and care, it serves the community with some of the latest in preventive, diagnostic, and treatment technology. Every program and treatment is part of their resolve to be an active and compassionate partner in the good health of the entire community.

## Children's Medical Center Dallas

Children's is a private, not-for-profit institution. It is the only Dallas healthcare facility that deals exclusively with a variety of diseases and disorders among children from birth to age 18. The center is licensed for 406 beds, including a 52-bed pediatric intensive care. The hospital also has more than 50 outpatient clinics and a state-of-the-art emergency center designed specifically for children. Children's is one of only 14 national pediatric research centers sanctioned by the National Institutes of Health. Faculty members of the University of Texas Southwestern Medical Center at Dallas are members of the Children's medical staff. They conduct research that is instrumental in developing treatments, therapies, and greater understanding of pediatric diseases. This research is nationally recognized for programs devoted to cancer, cardiothoracic, neonatology, kidney disease, infectious disease, pharmacology, sickle cell disease, and psychiatry.

## Cook Children's Health Care System

Cook Children's Hospital is a private, not-for-profit institution. It is the only Fort Worth healthcare facility that deals exclusively with a variety of diseases and disorders among children from birth to age 18. The medical center is licensed for 282 beds designed specifically for children. Cook's provides quality health care to children through an integrated system which oversees a continuum of services ranging from simple preventive checkups at pediatrician's offices to highly specialized hospital-based critical care.



## **LUBBOCK**

### Covenant Health System

Covenant Health System is the largest healthcare institution in the West Texas and eastern New Mexico region with 1338 licensed beds, 4,500 employees, and more than 600 admitting physicians at its cornerstone facilities in Lubbock including Covenant Medical Center, Covenant Medical Center-Lakeside, and Covenant Children's Hospital. Led by Covenant Hospital Levelland and Covenant Hospital Plainview, Covenant has a network of 18 leased, managed, and affiliated community hospitals and eight Covenant Family Healthcare Centers as well as physician offices offering primary medical care in the region.

### Carillon Senior Living Community

The Carillon partners with the School of Pharmacy to provide clinical education in Geriatric Pharmacotherapy. As a CCRC (Continuous Care Retirement Community) the Carillon offers a campus of independent living, assisted living, and a 140-bed long term care facility, which includes a dedicated memory care unit and short term Skilled Nursing care.

### University Medical Center

University Medical Center University Medical Center is a 501-bed tertiary care county teaching hospital which provides >35 million dollars annually in charity care to Lubbock and surrounding counties. It is home to the only burn unit, Level-I trauma center, and bone marrow transplant unit in the region. It also houses a 42-bed NICU, 24-Bed PICU, 24-bed SICU, 14-bed MICU, and brand-new cardiac care floor. It is also home to the Children's Miracle Network hospital for the city of Lubbock and the newly renovated Southwest Cancer and Research Center.

### Veterans Affairs Outpatient Clinic

The Veterans Affairs Outpatient Clinic in Lubbock is an outreach center from the Amarillo Veterans Affairs Health Care System. The clinic is a brand new 40,000 square foot facility with over 60,000 outpatient visits per year. There are three pharmacist-run clinics including medication referral (diabetes and hypertension), lipid lowering, and anticoagulation.

## **THE PROGRAM**

The School of Pharmacy offers the Doctor of Pharmacy (Pharm.D.) as its primary professional degree. The 4-year professional program requires at least two years of pre-professional studies that may be completed at any accredited college or university. The combination of semester credit hours and experiences of this curriculum results in exposures to specialty areas and patient populations in a



manner that is unique to TTUHSC Jerry H. Hodge School of pharmacy. Required rotations in Geriatric Pharmacotherapy, Pediatric Pharmacotherapy, and Rural Community focus on populations that are not only vulnerable to adverse medication outcomes, but represent the population demographics of the geographic regions served by TTUHSC. Competencies in this combination of specialties is not something graduates of every pharmacy school can claim, and our school of Pharmacy family is immensely proud of this advantage that our graduates bring to the healthcare marketplace. For this reason, the program recognizes a **Concentration in Special Populations** as part of the degree award for all students completing the regularly required coursework of the program.

A combined Pharm.D./MBA degree is also offered. Through the School of Pharmacy's affiliation with the TTUHSC Graduate School of Biomedical Sciences, MS and PhD degrees are also awarded.

Doctoral Candidates are admitted once each year for enrollment in the fall semester, which starts in early August. Studies must be on a full-time basis. Doctoral Candidates will spend the majority of each weekday in classes, laboratories, or clinical experiences.

## **TEXAS PHARMACY MUSEUM**



Inside the Amarillo Pharmacy building, the 3,000 square-foot Texas Pharmacy Museum is the only site in the state that specializes in collecting, preserving, and laying items that document the history of pharmacy. The museum's collection consists of approximately 10,000 items, including pharmacy art books, containers, laboratory glassware, and various other commercial remedies, products, and tools of the trade, dating as far back as the Civil War. Since it opened in 1998, these pieces of drugstore history have made their way to the museum from 90 different donors in Texas, California, and Pennsylvania.

## **OUR HISTORY – OUR IMAGE**

As we chronicle our own history and experiences with life in the School of Pharmacy, personal images may be captured during events organized and hosted by the University using film photography, digital photography, video, or other mediums and may be used on the Website, University prospectus or course brochures, other publicity material (such as internal and external newsletters), exhibition of student work, or graduation ceremony brochure and may be provided to the media for publication in local or national newspapers or educational magazines. At no time will the School or University sell a personal image.



## **ACADEMIC CALENDAR / EXECUTIVE SUMMARY**

Please visit the Academic Information web page for links to the School of Pharmacy Academic Calendars: <https://www.ttuhsu.edu/pharmacy/departments/academics>

## **PHARMACY LICENSURE**

Graduates from the Texas Tech University Health Sciences Center School of Pharmacy will be eligible to apply for licensure in any state or territory of the United States. Licensure as a pharmacist is administered by boards of pharmacy in each state. Every state and territory requires graduates to complete the North America Pharmacy Licensure Examination (NAPLEX) as well as a state prepared examination on laws and rules for pharmacy practice within the state. The NAPLEX is administered throughout the country at testing centers using testing procedures. Scores may be reported to any state. Many states require some internship experience after completing the degree requirements. Students are advised to contact the board of pharmacy in the state they desire to apply for licensure for more detailed information on requirements. In Texas, the Board of Pharmacy may be contacted as follows:

Texas State Board of Pharmacy (512) 305-8000  
George H. W. Bush State Office Building  
1801 Congress Avenue  
Suite 13.100  
Austin, Texas 78701-1319

## **TEXAS RESIDENCY**

Texas Tech University Health Sciences Center School of Pharmacy gives preferential admission status to residents of the state. This means that when competing for admission, a Texas resident will be admitted before a student of equal qualifications with non-resident status. The rules and regulations for determining residence status are pursuant to the Title 3, Texas Education Code, Statute/Sections 54.052 and 54.055.



## **TTUHSC STUDENT AFFAIRS**

<https://www.ttuhschool.edu/student-affairs/>

TTUHSC Student Affairs engages a holistic approach to student success by building a diverse and inclusive community, supporting emotional, intellectual and personal growth, facilitating professional development and providing guidance toward a professional health career.

The division is made up of seven key areas that support students inside and outside of the classroom. These areas include International Student Services, Registrar, Student Disability Services, Student Financial Aid, Student Life, Veterans Resource Center, and Writing Center.

### **Institutional Student Handbook**

This handbook works hand in hand with your school's catalog and handbook to provide you with a full scope of your rights as a TTUHSC student. <https://www.ttuhschool.edu/student-affairs/handbook.aspx>

### **International Student Support (806)743-4568**

<https://www.ttuhschool.edu/international/>

International students are an important and integral part of the TTUHSC. International Student Services helps international students with information about immigration issues, provides support for academic and cultural adjustment, and offers opportunities for involvement in the University community.

### **Student Disability Services (806)743-1926**

<https://www.ttuhschool.edu/disability/>

The mission of Student Disability Services at Texas Tech University Health Sciences Center is to support the Values-Based Culture by providing services for students with disabilities and encouraging accessibility within the learning experience by educating the campus community on related issues.

TTUHSC complies with the Americans with Disabilities Act (ADA), Section 504 Rehabilitation Act of 1973, and state and local requirements regarding students with disabilities. Under these laws, no otherwise qualified individual with a disability shall be denied access to or participation in services, programs, and activities of TTUHSC solely on the basis of the disability.

To obtain accommodations, qualified students must complete an application and provide documentation to TTUHSC Student Disability Services. If there are further questions about the process, reach out to Student Disability Services.

### **Office of the Registrar (806) 743-7347**

<https://www.ttuhschool.edu/registrar/>

The Registrar's Office is responsible for providing services to students and alumni including

enrollment verifications, degree verifications, name changes, and residency reclassifications. These services, and more, can be accessed through the HSC WebRaider Portal at [www.webraider.ttuhs.edu](http://www.webraider.ttuhs.edu). Students can also view their unofficial transcript and request an official HSC transcript through the WebRaider Portal.

Students must also maintain accurate permanent and local addresses with the Registrar's Office. Addresses are used for various purposes including student billing and official state and federal reporting. Maintaining an accurate address and telephone number is also important for use by University officials and/or student organizations. Students can update their address through the WebRaider Portal under "My Personal Information" or through their "Action Items" tab.

**Office of Student Financial Aid (806) 743-3025 | [financial.aid@ttuhsc.edu](mailto:financial.aid@ttuhsc.edu)**

It is the objective of the TTUHSC Office of Student Financial aid to provide financial assistance to students who, without such assistance, would not be able to pursue advanced education. Financial aid at TTUHSC comes from many sources: grants, scholarships and student loans. Federal, state, and local programs are available to students who appropriately demonstrate financial need.

General financial aid information including steps for applying for financial aid, types of financial aid, student eligibility requirements, and disbursement dates and can be found on our website: <https://www.ttuhs.edu/financial-aid/>.

Student financial aid awards may be viewed and accepted through the student's WebRaider Portal under "Manage My Finances – Student Financial Aid".

**Office of Student Life (806) 743-2302 | [student.life@ttuhsc.edu](mailto:student.life@ttuhsc.edu)**

<https://www.ttuhs.edu/student-life/default.aspx>

Student Life is here to help students make the most of their TTUHSC experience, bringing together the people, places and programs that support their growth, wellness and success both within and outside of the classroom. Through student programming and more than 100 student organizations, TTUHSC offers activities year-round to fulfill professional and personal interests. Students needing information about TTUHSC's student organizations, the institutional Student Government Association, the annual Ring Ceremony and graduation announcements can visit the Student Life website.

### Health Insurance

<https://www.ttuhs.edu/student-life/health-insurance.aspx>

All students must obtain and maintain health insurance coverage that is Affordable Care Act (ACA) compliant while enrolled at the Texas Tech University Health Sciences Center (TTUHSC), except those enrolled in a 100% distance program. Per OP 77.19

Mandatory Student Health Insurance  
*Defined Terms*



- For purposes of this policy:
  - The term “student” does not include residents.
  - The term “100% distance program” means the entirety of the degree program is online, with no face to face or onsite academic, research, or clinical component.
  - “Affordable Care Act (ACA) compliant” is defined as coverage which accepts preexisting conditions and meets the criteria of Minimum Value and Essential Health Benefits.
    - Minimum Value covers at least 60 percent of the total allowed cost of benefits that are expected to be incurred under the plan.
    - Essential Health Benefits include hospitalization, ambulatory services, emergency services, maternity and newborn care, mental health and substance abuse treatment, prescription drugs, lab tests, preventative services, pediatric services, rehabilitative, and “habilitative” services.

### Student Responsibility

- All students must obtain and maintain health insurance coverage that is Affordable Care Act (ACA) compliant while enrolled at the TTUHSC, except those enrolled in a 100% distance programs as defined above.
- The cost of the TTUHSC sponsored student health insurance plan will be added to the tuition and fee statement of all students required to maintain health insurance each semester at the time of enrollment.
- Students with alternative health coverage (e.g., coverage by a parent, guardian, spouse, or employer) that is ACA compliant may submit a waiver request.
  - If a waiver is approved, the cost of the TTUHSC sponsored student health insurance plan will be removed from, or refunded to, the student’s tuition and fee account.
  - If a student’s waiver request is denied and they would like to appeal the decision, they can contact the Office of Student Life. The Office of Student Life will work with Academic Health Plans to confirm the waiver denial is valid, based on the requirements of this policy.
- Students will have the option to opt-in to allow the Federal financial aid awards (e.g., grants and loans) to cover the student health insurance. Students who do not opt-in will need to pay for the student health insurance after they receive a refund of their remaining financial aid balance.

### Enrollment in the Student Health Insurance Plan

Enrollment is automatic and added to the tuition and fee statement at the time of a student’s enrollment in classes. Make sure to pay the fee by the institutional deadline to avoid additional fees or a hold being placed on your account.

The plan will provide health insurance coverage from August 1 to December 31 for new students in the fall, September 1 to December 31 for returning students in the fall, and from January 1 to August 31 for students in the spring/summer. You will be able to access your health insurance benefits and request your insurance card starting on the dates above on the [Academic Health Plans Website](#).

Students wanting to add a spouse or dependent(s) should follow these directions:

1. First pay the student health insurance fee on your tuition and fee account.
2. Go to the [Academic Health Plans enrollment website](#).
3. Click the Enroll/Cost tab.

4. Choose your school and Click on the blue button to enroll your dependent/s.

### Waiver of Health Insurance Requirement

If you have alternative health insurance coverage (e.g., coverage by a parent, guardian, spouse, or employer) that is Affordable Care Act (ACA) compliant, you have the option to submit a request to waive the student health insurance plan on the [Academic Health Plans website](#) beginning mid-June for the fall and November for the spring/summer. If your waiver is approved, the student health insurance plan fee will be credited back to your tuition and fee account. A new waiver is required every fall semester. If your request for a waiver is denied you will need to pay the charge for the student health insurance plan billed to your account. If you think your waiver was denied in error, you may email or call the Office of Student Life for assistance. Alternative health insurance coverage must be active during the duration of your academic term. Travel plans, short term plans, cost sharing plans, or plans that require you to pay for treatment yourself and then apply for reimbursement will NOT be accepted.

To submit a waiver:

1. Go to the Academic [Health Plan waiver website](#).
2. Review the waiver criteria.
3. Click on the blue button at the bottom of the page to submit your waiver.
4. On the login page, students will enter their TTUHSC student ID in the R12345678 format as their username and their date of birth in MMDDYYYY format as the initial password unless previously changed. Students are then taken to the student dashboard screen.
5. Fill out alternative health insurance information, upload documentation, and submit.

Please allow 5-7 days for review. You will receive an email from AHP. If approved, the charge on your tuition and fee account will be removed or refunded back to your account.

Utilize the resources on the [Office of Student Life website](#) and the [AHP website](#), which provide detailed information about the enrollment and waiver processes for the student health insurance plan.

### **Veterans Resource Center (806)743-7549**

<https://www.ttuhs.edu/veterans-resource-center/>

The TTUHSC Veterans Resource Center (VRC) is here to assist veterans, service members, and their families with their Federal benefits and Hazlewood Exemption. The VRC also has opportunities such as Green Zone Training, SALUTE Veterans Honor Society, Veteran-to-Veteran Mentorship Program, VetConnect, and more.

If you have any questions regarding benefits or available services, please contact the TTUHSC Veterans Resource Center at 806-743-7549 or email [src@ttuhsc.edu](mailto:src@ttuhsc.edu).

### **Writing Center**

<https://app4.ttuhs.edu/WritingCenter/>



The TTUHSC Writing Center's mission is to engage successfully and consistently with writers (students, faculty, staff, researchers, residents, etc.) on all TTUHSC campuses with respect to conversations about their writing at any stage of the writing process, with the key aim of helping these writers become more engaged, confident, and self-reflective.

## **SOP SCHOOL OFFICE OF STUDENT AFFAIRS**

Students needing assistance with campus issues, application, academic issues, and personal counseling should seek help here: **(806) 414-9393**

## **OTHER CAMPUS INFORMATION & RESOURCES**

### Immunizations

Updated information on immunizations will be provided during your school's orientation. If you require an immunization administered by the Family Medicine Clinic, you will be required to pay a fee. For additional information on centralized services please visit <https://www.ttuhs.edu/student-affairs/>.

### Program of Assistance for Students

PAS provides each student with up to eight (8) free, confidential counseling sessions per fiscal year (September – August). Students on the Lubbock campus and students in online programs at TTUHSC receive services through the Counseling Center @ TTUHSC, which is located in the east wing of the main TTUHSC building (1A300).

For students on TTUHSC's other campuses, view contact information for the PAS provider(s) in your location here: <https://www.ttuhs.edu/centers-institutes/counseling/contact.aspx>.

To schedule please call 806-743-1327 or 1-800-327-0328.

### Recreation Center

Each campus has information regarding the facilities at each location. Those can be viewed at the following link: <https://www.ttuhs.edu/student-affairs/campus-resources.aspx>

### Campus Parking

Limited parking facilities are available. Any student wishing to park on any of the campuses will be required to obtain a permit and pay the parking permit fee.

### Student Housing

The School of Pharmacy does not furnish living quarters for its students. Housing is individual and each student makes his/her own arrangements. Most students live in apartments or houses in the community. Housing is also available in Lubbock on the TTU campus. Apartment guides may be obtained from the School of Pharmacy Student Affairs.

## Amarillo HSC Student Senate

The Office of Professional Affairs serves as sponsor and provider of staff support to School of Pharmacy Senators to the Amarillo HSC Student Senate, which was established to foster better relationships between the students in all schools.

The following are contact numbers for additional offices with the School of Pharmacy.

- Amarillo  
Dean's Office (806) 414-9300  
Regional Dean's Office (806) 414-9294  
Department of Pharmacy Practice (806) 414-9310  
Department of Pharmaceutical Sciences (806) 414-9289  
Office of Technology (806) 414-9232  
Financial Administration (806) 414-9279  
Managed Health Care (806) 414-9344
- Abilene  
Regional Dean's Office (325) 676-7948
- Lubbock  
Regional Dean's Office (806) 743-7639
- Dallas/Ft. Worth  
Regional Dean's Office (214) 654-9404  
Dallas VA (214) 358-9036

You are urged to contact the School of Pharmacy, Office of Student Affairs and Admissions at (806) 414-9393 with questions pertaining to any of these areas.

## TTUHSC Student Health Services

You are REQUIRED by Texas Tech University Health Sciences Center (TTUHSC) to pay a Medical Services Fee per semester. With this fee, you can access healthcare in the clinic and see a nurse or physician for minimal or limited minor problems. Health insurance is not required to obtain services from the Family Practice Clinic which are located on or adjacent to each of our campuses with the exception of Dallas however, health insurance should be presented if needing services not covered by the Medical Service Fee.

General information about student health services on any School of Pharmacy (SOP) campus can be accessed through the SOP's office of Student Services on the Amarillo campus or through the TTUHSC-wide office of Student Services on the Lubbock campus. Campus specific information can also be accessed through Student Services or Regional Dean's office representatives at each of the four campus locations.

## Counseling Services

Confidential mental health services are available for students. These services include help in stress

management, crisis, relationships, family problems, anxiety, depression, and any other situations with potential to interfere with academic success. Psychologists provide the needed free sessions. Psychiatric referral is available when needed. They are available for consultation and counseling regarding personal, academic, and career issues. *These services are structured in such a manner as to provide and maintain strict confidentiality.*

## **Student Health Services Amarillo / Lubbock:**

### **Immunizations**

- ◆ Updated information about immunizations will be provided during your school's orientation. If you require an immunization administered by the Family Medicine clinic, you will be required to pay a fee.
- ◆ For an immunization, it is not necessary to be seen by a physician, but a nurse appointment is required. Female students must have a nurse appointment for a pregnancy test prior to an MMR immunization.
- ◆ Please bring your immunization records with you at the time of your first visit.
- ◆ Please contact the Office of Institutional Health at 806-743-3019 for the most up-to-date information on immunizations.

### **Pharmacy**

The Student Health Fee does not include a prescription benefit; thus, students are responsible for medication costs. However, a discounted option for pharmacy services includes Wal-Mart's \$4 Generic Drug program. The Family Medicine clinic should be able to provide more information.

### **Confidentiality**

All medical records are strictly confidential. By federal law, information cannot be released to anyone without the written consent of the patient, except as required by a court. You may have copies of your immunizations upon request. We will be happy to send copies of laboratory tests or other information to your physician of choice, upon your written release.

### **Clinic Locations**

#### **Texas Tech Physicians of Amarillo Family & Community Medicine**

1400 Coulter, Suite 5100, Amarillo, TX 79106  
Phone: 806-414-9559  
8-5, Monday-Friday  
Emergencies: BSA Hospital

#### **Texas Tech Physicians of El Paso Family & Community Medicine**

Texas Tech Family Medicine Center  
9849 Kenworthy, El Paso, TX 79924  
Phone: 915-215-5500  
8-5, Monday-Friday  
Emergencies: University Medical Center

#### **Texas Tech Physicians of Lubbock Family & Community Medicine**

TTUHSC Building, 1st Floor, Medical Pavilion  
3601 4th Street, Lubbock, TX 79430  
Phone: 806-743-2757  
8-5, Monday-Friday  
Emergencies: University Medical Center

#### **Texas Tech Physicians of Odessa Family & Community Medicine**

Health Center, 1st Floor  
701 W. 5th Street, Odessa, Texas, 79763  
Phone: 432-703-5201  
8-5, Monday-Friday  
Emergencies: Medical Center Hospital

## **Health Services for TTUHSC Students**

Health Professions • Medicine  
Nursing • Pharmacy  
Graduate School of  
Biomedical Sciences

### **Texas Tech Physicians**

**Amarillo  
El Paso • Lubbock  
Permian Basin**



*Department of  
Family & Community  
Medicine*

# Health Services for TTUHSC Students

rev. 01/21

## Eligibility

The Texas Tech Physicians Family & Community Medicine clinic provides health services to TTUHSC students who are currently enrolled and have paid the Student Health Fees as part of tuition and fees. To receive health services, you must present a Student ID card at the time of the appointment. If you also have private insurance in addition to Student Health Services, you will need to submit your receipt for the co-pay to your insurance company for reimbursement.

*The Student Health Fee covers only those services provided by the Family & Community Medicine clinic and specific laboratory and radiology service performed at cooperating locations. All other charges incurred are your responsibility.*

## Clinic Appointments

- ◆ Please call to make an appointment. If you need to be seen for a sudden illness, please call that day as early as possible.
- ◆ If you need to be seen after clinic hours, call your campus' clinic phone number and ask to leave a message for the on-call physician.
- ◆ When you check in, please inform the receptionist that you are a TTUHSC student. If you come to the clinic without an appointment, it may be necessary for you to wait for a physician.

Immunizations, paper work, and routine procedures are not ordinarily considered urgent care, and may not be taken care of on the same day as requested.

## Staff

The medical staff of the Texas Tech Physicians Family & Community Medicine clinic is composed of faculty and resident physicians and a nursing staff.

## Emergencies

If you have a health emergency that requires you to be seen at a hospital emergency room, go to the hospital listed for your campus under "Clinic Locations." *Visits to an emergency room that generate a charge from either TTUHSC or the hospital are your responsibility.*

## Fees

Effective 9/1/2007, TTUHSC students are required to pay the following fees:

Physician Visit.....	\$10
Physician Visit with Pap Test and/or STD* testing.....	\$25
*testing for chlamydia, gonorrhea or syphilis Physician Visit with Colposcopy Procedure.....	\$60

## Services Covered

### Medically Necessary Laboratory Services *(ordered by Family Medicine Clinic)*

#### Chemistry

- ◆ Glucose, Random/Fasting
- ◆ Amylase
- ◆ Lipase
- ◆ Potassium
- ◆ Total Protein
- ◆ Total Bilirubin
- ◆ Calcium
- ◆ HbA1c (non-screening)

#### Profiles

- ◆ Chemistry Profile
- ◆ Lipid Profile
- ◆ Liver Profile
- ◆ Thyroid Function Panel

#### Microbiology

- ◆ Strep Screen
- ◆ Throat Culture
- ◆ Urine Culture
- ◆ Urinalysis
- ◆ GC Testing

#### Virology

- ◆ Chlamydia testing
- ◆ Hematology
- ◆ CBC w/diff
- ◆ CBC w/o diff
- ◆ Sed Rate

#### Immunology

- ◆ RPR (syphilis) Monospot
- ◆ Pregnancy Test (Qualitative Only) Blood or Urine

## Radiology Services

- |           |         |                |
|-----------|---------|----------------|
| ◆ Chest   | ◆ Ribs  | ◆ Spine        |
| ◆ Pelvis  | ◆ Hips  | ◆ Shoulder     |
| ◆ Humerus | ◆ Elbow | ◆ Forearm      |
| ◆ Wrist   | ◆ Hand  | ◆ Finger       |
| ◆ Femur   | ◆ Knee  | ◆ Tibia/Fibula |
| ◆ Ankle   | ◆ Foot  | ◆ Abdomen      |

All covered laboratory and radiology services must be ordered by the Family Medicine physician. Any additional lab tests or radiology services, consultations, visits to other departments at TTUHSC, or visits to an emergency room that generate a charge from either the Texas Tech Physicians Family & Community Medicine clinic or the hospital will be your responsibility.

If you receive a bill from TTUHSC for services covered by the Student Health Fee, please bring the bill to the Texas Tech Physicians Family & Community Medicine clinic as soon as possible.

## Services NOT Covered

- ◆ Emergency room visits
- ◆ Hospitalizations
- ◆ Laboratory (other than listed)
- ◆ Radiology (other than listed)
- ◆ Procedures (other than colposcopy)
- ◆ Immunizations
- ◆ AIDS tests
- ◆ Antibody Titers
- ◆ Durable medical equipment (DME)
- ◆ Medications administered in clinic

**The Health Services provided to you as a TTUHSC student do not constitute a health insurance policy. For questions about services, please contact the Office of Student Life (806) 743-2302**

# Health Services for TTUHSC Students

# Student Health Services Abilene:

## Student Health Information

Dawson Building

1150 N 18<sup>th</sup> Street  
Abilene, TX 79601  
**325-670-2255**



### Office Hours:

Monday – Thursday  
8:30 a.m. – 4 p.m.  
Friday – 8:30 – 11 a.m.



### Appointments:

- Acute Care  
*(Same day appointment)*
- Non Urgent Care
- Chronic Condition Care



### Please call:

**325-670-CALL (2255)**  
to make an appointment.  
If you need to be seen for a sudden illness, please call that day as early as possible.

**HENDRICK CLINIC**  
Family Medicine



### Walk-ins

- Walk-ins are welcome, *although calling the office for a scheduled appointment time will reduce patient wait time.*
- When you check-in, please inform the receptionist that you are a TTUHSC student. If you come to the clinic without an appointment, it may be necessary for you to wait for a physician.
- Paper Work and routine procedures are not ordinarily considered urgent care and may not be taken care of on the same day as requested.



### Immunizations

For immunizations, please contact the Taylor County Health Department.



### Emergencies

- If you have a health emergency that requires you to be seen at a hospital emergency room. Visit the closest Hendrick emergency location.
  - Waters Emergency Care Center  
1900 Pine Street
  - Hendrick Emergency Care Center Plaza  
5302 Buffalo Gap Road.
  - Hendrick Emergency Care Center South  
6250 US 83/84
- Visits to an emergency department that generate a charge from either TTUHSC or the hospital are your responsibility.



### Fees

- The copay for TTUHSC students with insurance will be reduced to \$10 per visit. All visits are still subject to insurance deductible and co-insurance amounts. Self pay students will pay a discounted rate up to \$114 per physician visit.
- Any additional lab tests or radiology services, consultations or visits to an emergency room that generate a charge will be your responsibility.



**Services Not Covered:**

- Emergency room visits
- Hospitalizations
- Laboratory
- Radiology
- Procedures
- Immunizations
- AIDS tests
- Antibody Titers
- Durable medical equipment (DME)
- Medications administered in clinic



**Please remember to bring:**

- Texas Tech Student Photo ID Badge
- Driver's License
- Insurance Card



**Uninsured patients will be seen.**

Payment options including financial resource assistance will be discussed at the time of the visit.

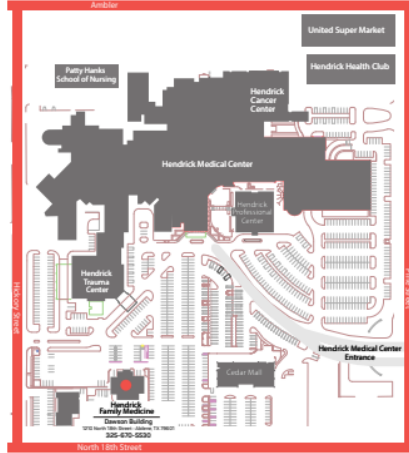


**Need more information? Please contact:**

**Ruth Austin**, TTUHSC Unit Manager  
1650 Pine Street - Room 2100P  
Public Health Building  
325-696-0406

**Elisha Wharton**  
Access Center Director - 325-670-5567

**Justin Crowe**  
Hendrick Clinic Director - 325-670-6923



Texas Tech University Health Sciences Center

*If you receive a bill from Hendrick Clinic for services covered by the Student Health Fee, please call, 670-CALL (2255).*

**HENDRICK CLINIC**  
Family Medicine

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1210 North 18th Street  
Abilene, TX 79601  
**325-670-CALL (2255)**

19-385 (12/2020)

TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER

Abilene Campus



**Student Health Information**

<https://www.ttuhscc.edu/student-affairs/health.aspx>



## Student Health Services Dallas:

HCA Care Now – 43 locations in North Texas

<https://www.carenow.com/locations/dallas-fort-worth/>



### Quality Care

CareNow® is ready to serve all of your urgent care needs, from sore throats to stitches to X-rays for broken bones. We also provide a wide range of family care and occupational medicine services:

- We have **providers on site** after-hours and weekends.
- We send **timely reports** to your primary care physician.
- **Web Check-In®** makes it easy for patients to be seen quickly and efficiently.

### Convenience

We have more than 40 locations all over the Metroplex, so we're sure to be in a neighborhood near you. Getting in to see the doctor isn't a problem because we're open seven days a week. No appointment is necessary, and most insurance plans are accepted.

**Open every day.**  
**No appointment necessary.**

For clinic hours and to Web Check-In®, go to **CareNow.com**

### Locations



### Services

#### Urgent Care

- Cold and flu symptoms
- Sinus and respiratory infections
- Ear infections
- Urinary tract infections
- Allergies
- Minor injuries
- And More!

#### Occupational Health

- Workers Compensation: injury diagnosis and treatment
- Pre-employment screenings
- Commercial Driver Medical Exams
- Drug screens and Breath Alcohol Tests

#### Family Care

- Sports physicals
- Pregnancy tests
- Annual physicals\*
- On-site X-rays
- Flu shots
- Select vaccinations
- EKGs, cholesterol and blood pressure screening
- STI treatment
- Travel medicine services  
*Bedford-Euless Location Only*
- Hypertension, hypothyroidism, and other chronic conditions

\*Check with your insurance company for specific coverage details



TEXAS TECH UNIVERSITY  
HEALTH SCIENCES CENTER™

## **SCHOOL OF PHARMACY SCHOLARSHIPS**

Awards distributed by the School of Pharmacy are based on academic achievement, leadership, extra-curricular activities, and financial need. Scholarship recipients are selected by the School of Pharmacy Faculty Scholarship Committee, a subcommittee of the Student Admissions Committee. Award decisions are made in the summer for the following academic year.

To be considered for scholarships for the upcoming school year, students must submit an online application no later than May 20th. Currently enrolled students with a minimum cumulative GPA of 80.0% and entering students with a minimum GPA of 3.0 (GPA calculated using only required prepharmacy course grades) are eligible. Entering students' transcripts must be on file with the Office of the Registrar by June 1st. To be considered for need-based scholarships, the applicant must submit a FAFSA by May 15<sup>th</sup>.

For additional information, contact the Office of Student Affairs at: 806-414-9393 or christine.andrews@ttuhsc.edu.

Scholarships awarded by TTUHSC School of Pharmacy include:

J.V. Adcox Memorial	Katelyn Jill Turner Memorial
Amarillo Area Foundation Community	MedcoHealth Solutions
Bexar County Pharmaceutical Association	Michael Patry Memorial
CAB Bond Memorial	Pharmacists Mutual
Bill Wehner Memorial	Purdu Pharma Student Academic Recruitment
Byrd Family	Reinhaus Family Foundation
The <b>CH</b> Foundation	Reverend Arthur Nelson, Sr. and Anne Nelson
CVS	Memorial
Cardinal Health	Roberta High Memorial
Ashlyn B. Cox Memorial	TTUHSC School of Pharmacy Academic
Dean's Leadership	Excellence
Dr. Gerald Holman Memorial	TTUHSC School of Pharmacy Alumni Pioneers
Gary C. Collins	TTUHSC School of Pharmacy Financial Need
James A. "Buddy" Davidson	Sybil B. Harrington Foundation
Norman J. Dozier Memorial	Tarrant County Pharmacy Association
Eckerd Student Academic Recruitment	Tom Thumb/Randalls/Safeway
Joshua Carnes Memorial	United Supermarkets
Jean C. Stockton	Walgreens
HEB	WalMart
Lonnie and Nancy Hollingsworth	Weinstein Family
	West Texas Pharmacy Association

## TUITION AND FEE INFORMATION

Tuition and fees are established each year by the Board of Regents. In addition to tuition and fees, students are responsible for their books, supplies, travel, and personal expenses associated with completing their clinical experiences. A laptop computer, compatible with the School's system, is also required. Contact the Office of Student Affairs to receive the specifications.

A \$100 application fee must be submitted with the application for admission. The application fee is non-refundable. Applications will not be processed without this fee. The fee is waived for TTUHSC employees on at least a 9-month appointment, their spouses, and dependent children under age 25. Upon acceptance of an offer of admission, the student pays an additional \$400 nonrefundable placement guarantee fee.



### Student Business Services

## Academic Year 2022-2023 Estimated Tuition and Fees

	Tuition	
State Tuition	TX Resident	Non-TX Resident
39 credit hours @\$150/credit hour (Texas Resident)	\$5,850.00	
39 credit hours @\$558/credit hour; (Non-Resident)		\$21,762.00
<b>Institutional Tuition</b>		
39 credit hours @\$233/credit hour	\$9,087.00	
39 credit hours @\$233/credit hour (Non Resident)		\$9,087.00
<b>Total Tuition</b>	<b>\$14,937.00</b>	<b>\$30,849.00</b>

### ESTIMATED FEES

Malpractice Insurance (each fall semester/per year)	\$17.00	\$17.00
Medical Services Fee (\$70.00/long semester)	\$140.00	\$140.00
Student Services Fee (\$132/semester)	\$264.00	\$264.00
ADIA - Academic Department Instructional Assessment Fee (\$400.00 per semester)	\$800.00	\$800.00
Educational Technology/Distance Education Fee (\$100.00/per semester)	\$200.00	\$200.00
Learning Resource Fee (\$17.00 per credit hour)	\$663.00	\$663.00
Drug Information Center (fall only)	\$160.00	\$160.00
SOP Clinical Immunization Fee for P1 only (\$40.00/ fall semester)	\$40.00	\$40.00
HSC Screening & Immunizations Fee (\$42.50/semester)	\$85.00	\$85.00
Identification Card Maintenance Fee (\$25.00 one time fee)	\$25.00	\$25.00

Information Technology Fee (\$22.00/credit hour)	\$858.00	\$858.00
Record Processing Fee (\$15.00/semester)	\$30.00	\$30.00
Orientation fee fall only	\$50.00	\$50.00
International Education fee \$4.00 per semester	\$8.00	\$8.00
Clinical Simulation & Correlation Fees for P1 Year	\$900.00	\$900.00
<b>Total Fees for First Year</b>	<b>\$4,240.00</b>	<b>\$4,240.00</b>
<b>Total of Tuition, Fees &amp; Expenses for First Year</b>	<b>\$19,177.00</b>	<b>\$35,089.00</b>

Estimated Books and Supplies for First Professional Year		
Text books	\$500.00	\$500.00
Lab jacket/name badge	\$45.00	\$45.00
Laptop computer (range \$1,500 - \$4,000)	\$2,000.00	\$2,000.00
<b>Estimated Total for Outside Expenses for First Year</b>	<b>\$2,545.00</b>	<b>\$2,545.00</b>

#### **ADMISSION FEES**

Placement Guarantee Fee (Non-Refundable)	\$400.00	
Application Fee (Non-Refundable)	\$100.00	
Application Fee PharmD/MBA (Non-Refundable)	\$175.00	

**Tuition, fees and expenses are subject to change at any time without notice.**

**Tuition is set by Texas State Statute and fees are set by the Texas Tech University**

**Health Sciences Center Board of Regents each year. Students are also responsible for their personal expenses, including travel and housing during their clinical experiences.**

#### **Other Fees**

International Student Fee-Charged only to non-immigrant international students (\$50.00/per semester)	\$100.00	\$100.00
Graduation Fee - charged in the semester in which graduation occurs P4 only	\$100.00	\$100.00
Clinical Simulation Center Fees for P2 year	\$600.00	\$600.00
Clinical Simulation Center Fees for P3 year	\$300.00	\$300.00
Clinical Simulation Center Fees for P4 year	\$300.00	\$300.00
Outcomes Assessment Fee (spring P3 and P4 only)	\$175.00	\$175.00
Preceptor Fee (P4 only) \$150 per rotation	\$1,200.00	\$1,200.00
Recreation Center Fee (Lubbock Students only \$75.00/long semester, \$37.50/summer)	\$150.00	\$150.00
Parking Fee – varies by campus	\$75.15	\$75.15
Student Union Fee (\$5.00/semester Lubbock Only)	\$10.00	\$10.00
Student Athletic Fee (Lubbock Student only \$61.20/semester)	\$122.40	\$122.40
Late Payment Fees (after the 2nd working day following the billing due date, \$50.00 per due date)	\$50.00	\$50.00
Late Registration Fee (beginning 1st class day)	\$50.00	\$50.00
Returned Check Charges (per occurrence)	\$30.00	\$30.00
Post Census Day Matriculation Fee	\$200.00	\$200.00
Installment Option Fee (\$25/per semester)	\$50.00	\$50.00
Identification Card Replacement Fee (\$10.00/occurrence)	\$10.00	\$10.00

**Refunds**

Prior to the first day	100 percent
During the 1st five class days	80 percent
During the 2nd five class days	70 percent
During the 3rd five class days	50 percent
During the 4th five class days	25 percent
Anytime after	None

**Emergency Tuition Loan Program**

Resident and non-resident students as well as students that do not apply for financial aid may be eligible for an emergency loan.

*This loan is used exclusively for payment of current tuition and fees.* There is no minimum hour requirement. Students may apply for this loan through the Financial Aid Office. A promissory note must be signed and funds will be applied to the student's account. The loan amount will cover the cost of tuition and fee charges for the currently enrolled classes. The loan is of 90-day duration or the close of the semester (whichever comes first) and is payable in full no later than the established due dates. The interest rate is five percent per annum and is calculated from the loan origination date.

Tuition and fees will be established each year by the Board of Regents. In addition to tuition, students are responsible for their books, supplies, travel, and personal expenses associated with completing their clinical experiences. A laptop computer, compatible with the School's system is required.

**DOCTOR OF PHARMACY ADMISSIONS POLICY**

Admission to the Texas Tech University Health Sciences Center School of Pharmacy is open to all individuals who have permanent U.S. residency status or international students that apply by the appropriate deadline. See website for details. Applicants must have completed at least two years of pre-professional studies at any regionally accredited U.S. college or university and must present official transcripts of having completed 65 hours of designated courses with a grade of C or better. Applicants must complete the application form, request three letters of reference from individuals who can attest to the applicant's morals, ethics, academics, and life experiences. Applicants are provided the opportunity, through the consideration of personal statements, recommendations, and essays to demonstrate their potential contributions to diversity.

**The Admission Process**

The admission process begins in early July each year and continues through the regular admission deadline. Prior to fall admissions, each applicant will have a staff review of their application reviewed upon receipt. To be eligible for review, each applicant must have a preferred minimum pre-pharmacy grade point average (GPA) of 3.0 on a 4-point scale on the list of prerequisite courses completed by the published deadline date each year. The pre-pharmacy grade point average (GPA) is calculated by considering only the last grade received for designated courses taken in the general requirements. Students making application shall have completed, or expect to complete, at least two full academic

years of pre-pharmacy before entering the Pharm.D.. program in August. Coursework older than 7 years will be subject to further review. Courses will vary somewhat based on the curriculum offered at various schools. General requirements are as follows:

General Chemistry (for majors), with lab 8 SCH\*\*  
Organic Chemistry, with lab 8 SCH\*\*  
General Physics (trig or calculus based), 4 SCH\*\*  
General Biology (for majors), with lab 8 SCH\*\*  
Microbiology, with lab 4 SCH\*\*  
Calculus 3 SCH\*\*  
Statistics 3 SCH\*\*  
Speech (public speaking) 3 SCH\*\*  
English Comp I 3 SCH\*  
English Comp II 3 SCH\*  
English Literature 3 SCH\*  
Humanities/Social Sciences 15 SCH \* \*\*\*

### **Legend:**

\*If you have earned a bachelor's degree from an accredited college or university in the United States prior to enrolling in the School of Pharmacy, you are exempt from the English and Humanities/Social Sciences requirements.

\*\*Used in the calculation of the pre-pharmacy GPA (grade point average).

\*\*\*Humanities/Social Sciences: Courses may be selected from any mix of Anthropology, Communications (excluding Public Speaking, which is a prerequisite), Economics, Ethnic Studies, Family Living/Human Development, Geography, History, Journalism, Philosophy, Political Science (Government), Psychology, and Sociology. Performing and Fine Arts (including Music, Physical Education, and Foreign Languages), Computer Sciences, or similar courses will not meet this requirement. Prerequisite groupings for Humanities/Social Sciences, e.g., 6 hours of history and 6 hours of government, are not required by the TTUHSC School of Pharmacy. Advanced Placement (AP), CLEP, and Dual Credit are accepted if documented on your transcript from an accredited U.S. college or university.

We have always maintained a holistic application review when considering candidates for admission. This review includes the following items:

- Overall GPA
- Pre-Pharmacy GPA
- Letters of Recommendation
- Essays
- Work and volunteer experience
- Extracurricular activities and involvement

If your GPA falls below our preferred minimum GPA of 3.0, we may encourage you to take the PCAT to provide the Admissions Committee with additional academic information.



- See prerequisites at <https://www.ttuhsu.edu/pharmacy/prospective/prerequisites.aspx>. Each candidate shall complete at least the minimal course prerequisites for admission to TTUHSC School of Pharmacy.
- Advanced Placement (AP), International Baccalaureate (IB), and College Level Examination Program (CLEP) credit taken prior to enrollment at the candidate's school will be accepted if on the candidate's college/university transcript.
  - Dual credit taken prior to enrollment at the candidate's school will be accepted.
  - Courses may be taken at a community college or a university.
- Each candidate must remain in good academic and disciplinary standing at their school.
- The candidate must complete a successful interview.

### Review of Application and Admissions Criteria

All of your application materials are important and will be reviewed by the Admissions Committee as part of the overall process. Once you have completed the PharmCAS application online, submitted your transcripts, given your references their forms to complete, completed the supplemental application, paid your application fee, and taken the PCAT with your grades having been received by the Pharmacy College Application Service (PharmCAS), your application will go through a 6-step review process.

#### **Step 1 – Admission Staff Review**

The admissions advisor will review your completed application to determine whether all documents are complete and whether you meet the minimum admissions requirements. We will compute your adjusted pre-pharmacy GPA using the last grade you received in your courses. Your transcripts will be reviewed for each "F", "W", and "D" previously made in the all previous coursework. The status of your application will be posted online and verify that your application is complete.

#### **Step 2 – Admissions Committee Member Review**

The Admissions Committee is composed of a cross section of faculty members and advanced students who review each application to determine which applicants will be invited to one of the SOP campus locations for an interview.

If you are not offered an opportunity for an interview, it does not mean that we believe you would not be a good student; we simply have so many applications that it is impossible to spend a day with every person who meets the minimum requirements. We must focus on those applicants who we determine have the best chance to be successful in a very difficult academic program. If you are not extended an interview invitation, please call to make an appointment with one of our counselors to review your application. We can explain why you fell short and make suggestions on how you could enhance your application for the next year if you wish to re-apply.

#### **Step 3 –Interview**

If you receive an interview opportunity, you will be invited to one of our campus locations designated in those instructions for your interview, which may be in Amarillo, Abilene, Dallas, or virtual via the Zoom platform.

### *Preparing for the Interview...*

1. Dress professionally. When you look professional, you act it....but be sure your clothes are comfortable and you feel good about the way you look.
2. Be on time. If you feel rushed or start late, it sets you up to feel frazzled. Get a good night's sleep the night before.
3. Be honest. If you do not know an answer, say "I don't know." Faculty interviewing you will know the difference. If it is a question about you or your wanting to be a pharmacist, have something to say. Smile. Be cheerful and positive.
4. Look people in the eye.
5. Relax. This day will be busy, but hopefully fun and informative! We want to get to know you, and we want you to get to know us.
6. Ask questions. This day will also include a tour of our facilities and an opportunity for you to ask questions of students, faculty, and our staff. Good luck!

The interview day will start with a welcome and general directions for the day. Again, it is simply a time to get to know you and for you to get to know the other applicants who will be with you for the day. You cannot really prepare anything, so just be relaxed and do your best on everything you are asked to do.

- The major assessment comes from a one-on-one interview with a faculty member and one of our existing students. They will be interested in why you want to be a pharmacist, any experiences you have had with pharmacy, your extracurricular activities while in college, your interpersonal abilities, your strengths, and weaknesses. You will be able to “tell your story” in this session, so think about your life experience and why you are interested in a career in pharmacy.
- Additionally, we will give you a tour of the school, allow you to spend some Q&A time with our current students, and highlight some of the core competencies in our Student Showcase. These experiences will help give you a general feel about whether TTUHSC SOP is the right place for you. You will also be given information on how to determine your overall status in the admissions process and how to get any further information you may desire.

The interview is the best way for you to understand what the SOP is about and to give you the opportunity to demonstrate that you would be successful in the program and as a pharmacist.

#### **Step 4 – Ranking of Applicants**

Once all the data are compiled, the Admissions Committee rank-orders the students based on the Interview Scores.

#### **Step 5 – Diversity Factors**

The Texas Tech Board of Regents have instructed all programs to identify and use diversity factors to ensure that our classes reflect the cross-section of factors that are reflective of the population of Texas. The U.S. Supreme Court has given guidelines for professional programs to use diversity factors in their admissions process and TTUHSC SOP fully complies with these guidelines. For example, there are no quotas or target percentages of the class that must meet any or all of these diversity factors, factors are

not weighted in the admissions formula, and diversity factors will not move an applicant into the class as admitted without fully meeting the requirements for admissions. We are required to give a full review of each application and only apply diversity factors when individuals with these factors enrich the qualities of the class.

The diversity factors (in no priority order) considered by the Admissions Committee are as follows:

- Is the applicant's official residency in an area classified by Texas as underserved with health professionals? These are typically a socio-economically depressed area or from a rural county (population less than 50,000).
- Is the applicant fluent in Spanish and English language skills?
- Has the applicant distinguished themselves in extracurricular activities directed to health care or community service?
- Other special considerations as presented by the applicant.

This step gives the Admissions Committee the opportunity to ensure appropriate diversity in the class beyond a priority rating as determined in Step 4.

#### Establishing the Class and Alternate List

When we have finished steps 1-5, the Admissions Committee will identify those applicants who are extended offers and those who will be retained on an alternate list. We complete what is termed "rolling admissions" meaning that we admit some students throughout the admissions and interview process but hold a number of positions until the final interviews are completed and the Committee can consider the full applicant pool. Within 48 hours of the time we have completed all reviews, typically in early summer, we will notify you of your status, and within 7-10 working days, we will send you a letter notifying you that you have either been admitted or have been placed on the alternate list. A nonrefundable placement guarantee fee of \$400.00 is required with your acceptance.

If you do not make the first admissions list, please do not give up on being admitted to the SOP. As we learn that an applicant has accepted a position in another school, we will select from the alternate list and offer them admissions. If you are in this situation, we will change your status on PharmCAS and send you a letter notifying you of your admissions. If you are an alternate, keep monitoring PharmCAS for updates to your status. You may also contact the Office of Student Affairs and Admissions if you have any questions about how your application was reviewed.

#### Felony Conviction

One additional criterion for admission to the SOP is not having any felony convictions. Most hospitals, clinics, and many community pharmacies will not accept students for professional practice experiences if s/he has been convicted of a felony. Therefore, we are not able to place a convicted felon in the required professional practice experiences, thus s/he cannot meet the requirements for graduation. Students with felony convictions will not be admitted. If you have any questions, please do not hesitate to contact Student Affairs. If a matriculated student has a felony conviction during their studies, s/he will be disenrolled from the School and TTUHSC. A Criminal Background Check is required prior to matriculation into our program.

## Required Application Documents

All prerequisite courses must be completed with a grade of “C” or better. Note: Prerequisites do not have to be completed prior to submitting and finalizing an application. However, these must be completed prior to matriculation. A bachelor’s degree is not required. The following admission documents must be submitted to the School of Pharmacy by the required deadline for students to be eligible for fall admissions:

1. Completed Online PharmCAS Application and online Supplemental Application
2. Pharmacy Experience Essay
3. Official Transcript(s) documenting the completed pre-pharmacy and general education requirements with a grade of “C” or better sent directly to PharmCAS. Transcripts are required for all college courses taken, regardless of grade or part of the pre-pharmacy requirement. Official transcript(s) documenting prerequisites that are completed after the deadline date should be submitted immediately upon completion of the course and received within two weeks after the end of the semester but no later than July 31. Students who do not submit transcripts of all college courses taken are subject to disenrollment when discovered at a later date.
4. A Supplemental Application Fee of \$100, nonrefundable. Applications will not be processed without this fee. The fee is waived for employees of TTUHSC on at least a 9-month appointment, their spouses, and dependent children under age 25.
5. Three Letters of Recommendation electronically submitted to PharmCAS (Letters from math or science faculty, pharmacy supervisors, pharmacy peers, or other supervisors preferred. We will not accept letters from family or friends.)
7. Completed and clear Criminal Background Screen
8. Immunizations and CPR Certification

The pharmacy experience essay and the reference letters are used to evaluate the overall qualifications of the candidate. Please go to our website for PCAT information, course matrix information, and information about important dates.

## Technical Standards Required for All TTUHSC Pharmacy Students

To complete the required School of Pharmacy curriculum, students must be able to perform the following minimum technical standards, with or without reasonable accommodation, to achieve successful completion of the PharmD degree:

### **Visual Acuity**

- Possess sufficient vision, with or without reasonable accommodation, to:
  - accurately read 6-point type,
  - read and process written information in written and digital format,
  - distinguish the markings, shapes, colors, and other characteristics on typical commercially prepared products, and
  - observe the activities of technical support staff operating under his/her supervision in accordance with workplace policies and state law

## **Hand, Finger, Eye Manipulations**

- Possess sufficient motor function, with or without reasonable accommodation, to:
  - prepare all routine types of medications, including sterile/non-sterile compounds and products,
  - perform physical assessments of patients including diagnostic tests and manipulate/use other equipment for patient care activities,
  - deliver direct patient care, and
  - execute all aspects of processing drug orders

## **Hearing**

- Hear sufficiently, with or without reasonable accommodation, to:
  - process verbal orders
  - engage in conversations with patients, caregivers, and other team members in noisy environments
  - evaluate discrete, soft sounds such as heart, lung, and bowel sounds via a stethoscope

## **Ambulation**

- With or without reasonable accommodation:
  - Move efficiently within and among patient care areas
  - Sit upright or stand for up to 12 hours at a time

## **Communication**

- With or without reasonable accommodation:
  - Communicate in English effectively in verbal and written formats with faculty, staff, patients, fellow students and patient care teams
  - Obtain and verify information from patients, caregivers, and other healthcare team members through asking questions and utilizing active listening skills
  - Possess awareness of his/her own, as well as others', demeanor and nonverbal communication and be able to adjust his/her own behaviors as dictated by the situation

## **Psychosocial/Ethics/Critical Thinking**

- With or without reasonable accommodation:
  - Exhibit professional and ethical demeanor in keeping with the Oath of a Pharmacist and the Pharmacist's Code of Ethics in all dealings with faculty, staff, patients, fellow students, and patient care teams
  - Develop effective relationships and demonstrate compassion and empathy for others
  - Possess the emotional health required to use their full intellectual abilities, exercise good judgment, and practice in a safe manner
  - Display adaptability to change in the face of physically or emotionally stressful situations
  - Work effectively as a team member
  - Demonstrate critical thinking skills to solve patient care problems in an effective manner

Prioritize and complete tasks in an amount of time appropriate to standards of the profession, the specific situation, and the safety of the patient

## Foreign Student Information

As an international applicant, you are also required to complete an International Student Application. This document is available on our website. Download the word document for Admission to the Texas Tech University Health Sciences Center School of Pharmacy in addition to completing the online application for the School of Pharmacy. You will find a Checklist of Documents Required that you can print to help guide you through the process. Please send all application materials and fees to the address listed on the applications. The deadline for the International Student Application and the online application for foreign students is December 1. A foreign transcript course-by-course evaluation through the World Education Services (WES) is required for any course being considered as a prerequisite. WES is the only course evaluation service that is permitted.

The School of Pharmacy accepts applications only for the fall semester. Before an application can be considered, you must have the Pharmacy College Admission Test (PCAT) results – *see the SOP website for current PCAT requirements* - and TOEFL scores reported to us.

The PCAT booklet explains procedures that must be followed by foreign students to obtain testing. Applicants who have demonstrated significant achievement through PCAT scores and grade point average and who will complete both the pre-pharmacy and general education requirements may receive an admission interview. The purpose of the interview is to give you an opportunity to personally present your unique qualifications and see if our program will meet your needs.

**You are responsible for your own transportation, accommodations, and meals if invited for an interview.** An interview does not guarantee admission, but you cannot be admitted without an interview.

## Transfer Credits and Pre-Pharmacy Equivalencies

Admission of transfer students is based on receipt of required documentation of credits earned and selective admission factors. Students are required to submit official transcripts from all colleges or universities attended. Evaluation of transfer credit for each student is completed upon receipt of all documents required for admission. The SOP maintains a separate matrix of accepted prerequisite courses and corresponding course numbers for most colleges and universities in Texas. Courses on the matrixes are equivalent to the pre-pharmacy courses required by Texas Tech School of Pharmacy. The matrixes may be accessed from a page on our website linking each school to its specific information.

## Advanced Placement

Students who have been granted credit through successful completion of the subject examination in the College Level Examination Program (CLEP), the International Baccalaureate Program, or the Advanced Placement Examination Program, and who have evidence of these credits on their college or university transcripts, may meet prerequisite requirements.

## Experiential Learning

Credit for Life Experiences gained through employment and other activities may be granted by the Dean. A portfolio documenting learning and life experiences as they relate to specific courses is

required. The learning experiences must be equivalent to what would otherwise be achieved at the college or university level.

#### Foreign or International Institution Evaluation

Official records are original, signed documents issued by the institution or duplicate copies of the original which bear an original seal of the issuing institution and registrar's signature or some person who is an official of the issuing school. Conferral of degrees, diplomas, certificates, or professional titles must be verified by official copies of same, dated entries of the academic record or official statements from the institution or governmental agency granting the degree, certificate, or title. Date of formal conferral must be shown. The certificate of conferral must refer to the degree, diploma, certificate, or title in its exact original designation. Unless academic records and diplomas, degrees, or certificates are issued in English by the institute itself, authorized **English translations must accompany the official documents in their original language**. All translations must be literal and complete renditions of the original documents.

#### Regular Admission Review

The deadline for regular admission review is a published date each year (see SOP web page). Applications will not be considered unless all documents have been received in the School of Pharmacy, Office of Student Affairs and Admissions by the required deadline. All prerequisite course work must be completed by May 31.

### **PHARM.D. / MBA PROGRAM**

The idea of a Pharm.D./MBA program was born in early 2006 in discussions between several faculty at the Texas Tech University Rawls College of Business and the Texas Tech University Health Science Center School of Pharmacy. The central theme to the discussions was the need to develop and train the future leaders of the profession. The Health Organization Management concentration within the MBA program matched what the pharmacy faculty believed were the necessary areas of focus to develop strong leaders in health care organizations.

The curriculum emerged after several rounds of negotiation between the programs keeping in mind the accreditation requirements of business and pharmacy. The curricular design model was determined after reviewing other Pharm.D./MBA programs matched with the teaching schedules and course prerequisites. Rather than adopting the various models currently in use throughout the U.S., the faculty chose to use a dual-degree approach and integrate both programs into a typical 4-year course of study. Since the program was structured to be a dual-degree, it was essential that all of the approved content for both degree plans be met.

The Pharm.D./MBA program at Texas Tech is the 31st program in the country and one of the only programs to award the MBA by the time of completion of the Pharm.D. degree. The HOM program at the College of Business is one of the few accredited programs for health organization management in the country.

The TTUHSC School of Pharmacy will require completion of a Pharm.D./MBA Application form by March 20 of each year. A Pharm.D./MBA selection committee will review the academic achievement of each candidate and forward a recommendation to the Rawls College of Business and HOM program. Students should delay completing the Rawls College of Business applications until a



determination of an SOP recommendation has been made. If the Committee does not recommend a student apply to the Pharm.D./MBA program, the SOP program coordinator will counsel the student. The Rawls College of Business and the School of Pharmacy may limit the number of pharmacy students that are allowed to enroll in the Pharm.D./MBA program. Applicants for the Pharm.D./MBA Dual Degree program MUST have a prior baccalaureate or higher degree to be admitted into the program. Additional information regarding requirements for enrollment, applications, fees, and program information can be found in the TTUHSC School of Pharmacy Pharm.D./MBA website. <https://www.ttuhs.edu/pharmacy/mba/pharmd-mba.aspx>

## **PHARM.D. / MPH PROGRAM**

The PharmD/MPH program is a reflection of the combined missions of the TTUHSC Jerry H. Hodge School of Pharmacy (<https://www.ttuhs.edu/pharmacy/admissions.aspx>) and the Julia Jones Matthews School of Population and Public Health (<https://www.ttuhs.edu/population-public-health/programs/dual-degrees.aspx>). The program prepares pharmacy students to meet the increasing challenges in their communities' continuously evolving health care environment by educating those students to become future health care leaders in public health policy development. The PharmD/MPH program combines the skills and knowledge of pharmacy practice with public health's core competencies in order to develop pharmacy practitioners skillsets in population-based drug therapy management and utilizing a systems-based approach to medication safety and health promotion/chronic disease prevention.

The Pharm.D./MPH program at Texas Tech can be completed during the timeframe of the 4-year course of study for the Pharm.D. curriculum. Students can enroll in the Pharm.D./MPH program starting in the summer prior to the first or second professional year of pharmacy school. The application deadline for admission is March 1<sup>st</sup> of each year. Electronic applications are found at <https://sophasexpress.liaisoncas.com/>. Applicants for the Pharm.D./MPH program MUST have a prior baccalaureate or higher degree to be admitted into the program or the ability to complete these requirements before starting in the MPH portion of the curriculum. Additional information regarding requirements for enrollment, applications, fees, and program information can be found in the TTUHSC School of Pharmacy Pharm.D./MPH website.

**TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER  
SCHOOL OF PHARMACY  
STUDENT HEALTH RECORD POLICY**

**BACKGROUND**

Students involved in patient-care activities are at higher risk than the general population for acquiring communicable diseases such as measles, mumps, rubella, chicken pox, and tuberculosis. A pharmacy student who has one of these diseases may, in turn, infect other personnel and patients. Such infections established in any health care facility are serious in their potential for medical and possible legal complications. Therefore, Texas Tech University Health Sciences Center has a policy of immunization that all pharmacy students must follow. This policy conforms with the Texas Statute Title 25 Health Services, SS97.61-97.77 of the Texas Administrative Code that requires all students to be fully immunized during their patient care experiences.

**PROCEDURE**

Prior to enrollment in the School of Pharmacy, candidates are required to obtain a history of their immunizations and vaccinations. Documentation of immunizations and vaccinations must be provided by written documentation of a health care provider (physician, nurse, or pharmacist), and must include the type of immunization/vaccination received, the date, and the signature of the health care provider who administered the immunization/vaccination. High school transcripts with medical record, baby records from parents, Visa documents, and similar documents are acceptable for documentation.

In order to protect the health of our students and the health of the patients with whom they come in contact, TTUHSC requires all entering students to provide documentation of several immunizations as well as the results of serological titers to determine whether or not they are actually immune to certain diseases. Immunization requirements are based on regulations, guidelines and recommendations available as of October, 2009 from the Texas Administrative Code (TAC), Texas department of State Health Services (DSHS), the U. S. Centers for Disease and Control and Prevention (CDC), and the U. S. Advisory Committee for Immunization Practices (ACIP).

Copies of lab reports, immunization, and/or health records must be provided to the School of Pharmacy. This link will provides a list of vaccinations required for all students enrolled in healthcare fields: [https://www.ttuhscc.edu/institutional-health/documents/sop\\_immunization\\_requirements.pdf](https://www.ttuhscc.edu/institutional-health/documents/sop_immunization_requirements.pdf)

**NEW STUDENTS**

All new students accepted to the program are required to be current on the following immunizations before you will be allowed to begin your first year of pharmacy school. A form is provided at this link that the student may use to list the dates of the immunizations.

<https://www.ttuhscc.edu/institutional-health/documents/SOPimmunization51822.pdf>. It is required that supporting documentation must be attached to the form upon submission to the Office of Institutional Health.

- **Hepatitis B**--3 doses, generally 1<sup>st</sup> and 2<sup>nd</sup> doses one month apart, the 3<sup>rd</sup> dose four to six months after the first dose, **or quantitative** titer demonstrating immunity. The hepatitis B third

dose may be received during the first semester of pharmacy school due to the length of time required to obtain the full 3-doses.

- **MMR-- (Measles, 2 doses one month apart, or serological titer demonstrating immunity to Mumps and Rubella).** Measles, Mumps, and Rubella – *the titer must demonstrate immunity to all three diseases.*
- **Varicella--2 doses one month apart, or serological titer demonstrating immunity**
- **Tdap (Tetanus,1 adult dose is required with Diphtheria and acellular Pertussis). Must have been received within the last five years.**
- **TB Skin Testing**—Two step TB skin test. The CDC **DOES NOT** recognize a previous history of BCG as reason to not take a yearly Tb skin test. Therefore, unless you have had a **POSITIVE** TB skin test, a TB skin test within the past 12 months is required. If you had a **POSITIVE** TB skin test in the past, a report indicating a negative chest x-ray taken within the previous twelve months is **required**. TTUHSC will also accept IGRA (T-SPOT or quantiferon) testing in place of a TB test If you have previously had a positive TB skin test or if you were exposed to a suspected or confirmed +TB patient, you are requested to view and answer the questions on the TB Questionnaire, which can be found at this link under Resources and Links: <https://student.ttuhschool.edu/pharmacy/current/>
- **Meningococcal--One booster dose of Meningococcal vaccine (MCV) – Adult.**
- **CPR--All new students must obtain an American Heart Association Basic Life Support for Healthcare Providers Certification. Only the American Heart Association CPR is accepted.**

## **CONTINUING STUDENTS**

All continuing students must remain current on their vaccinations throughout their pharmacy career. This link provides a list of vaccinations required for all students enrolled in healthcare fields: <https://www.ttuhschool.edu/institutional-health/default.aspx>.

## **ENROLLMENT REQUIREMENTS**

Students involved in patient-care related activities are required to maintain current student health records and CPR certification. Prior to each enrollment period, a review will be made of the student's health records by the TTUHSC School of Pharmacy, Office of Student Affairs and the student will be notified of impending requirements. If a student has any immunizations, screenings, shots, or CPR certification that may fall due (with the exception of the flu vaccine) during the next enrollment period, the student will be required to update their health record **at least one week prior to the start of the semester**. Any student who is not current with immunizations on the first day of the semester shall not be permitted to participate in any patient-related activities. The student will be automatically dropped on the first day of the semester from any patient-related courses, rotations, and/or activities and will not be allowed to complete any patient-care related courses during the entire semester. Students may enroll in patient-care courses for the following semester if all immunizations, CPR, flu vaccine (if

applicable) and TB screening are completed by the first day of the following semester. Patient-related activities are provided throughout all four-years of pharmacy school.

### Flu Vaccine

At the current time, the flu vaccine is provided by the Institutional Office of Student Services. This vaccine is provided in October each year at no cost to the student. The students will be notified when the vaccine is available and they must obtain the vaccine and provide a copy of the documentation to the Office of Student Affairs on their respective campus. Any student who is allergic or has some other medical condition which prevents them from having this vaccine must provide a doctor's statement declaring the medical condition which prevents the injection. If at any time a student enters a clerkship rotation and the rotation site requires the flu vaccine before the vaccine is available through the Institutional Office of Student Services, the student is required to obtain any and all required shots before the rotation begins and the cost of the vaccine is born by the student.

### CPR

It is the responsibility of the student to maintain CPR certification. The CPR certification is a requirement for all students in patient-care related activities. Your CPR certification must remain current at all times.

### Tuberculosis Screening

All students shall participate in annual TB screenings.

All new students shall have an initial two-step TB screening pre-matriculation (prior to enrollment in the School of Pharmacy).

Continuing Students without a previous positive reaction previously to a PPD skin test must have a follow-up PPD skin test each year. Those who have had a positive reaction must complete a TB Questionnaire annually and chest films will be ordered as needed, based on TB Questionnaire results.

### Student Health Insurance

Students are required to have health insurance coverage.

### Criminal Background Checks

Once a student has been offered admissions, the University will conduct a criminal background check on the applicant before finalizing admission. The background check is only conducted on an applicant who signs a consent form, but those applicants who are fully admitted must have documented records of no felony convictions or a deferred adjudication for a felony before admission is final. You will be provided a printed copy of the University policy detailing your rights and responsibilities during the on-campus interview. Please contact the office of student services if you have any questions.

### Drug Screen

Many of the facilities that accept students for professional practice experiences require a clean drug screen prior to the first day on service. Students will be informed if a drug screen is required and given

a list of certified laboratories in each community where the screen may be performed. If you are required to have a clean drug screen, you will be given further directions, including a description of your rights and responsibilities. The cost of a drug screen is paid by the student, who must submit the report to the Clerkship Office prior to the first scheduled day, as described in the clerkship manual.

## **THE PROFESSIONAL PROGRAM**

### **Grading**

Unless otherwise specified in the course description, courses are graded on a numerical scale with a grade of 75% considered as a satisfactory score and 70% as minimal acceptable score for a single course. Students must maintain a cumulative average grade of 75% to progress. No letter grades will be recorded on official transcripts. The Dean's List will be calculated on an overall GPA of 95% or above each semester. It is the policy of Texas Tech University Health Sciences Center School of Pharmacy to issue grades of “I” (Incomplete) when a course requirement, such as an exam or a report, has not been completed. The student has the responsibility of contacting the faculty member about an exam or a report that has not been completed to determine the validity of grade of incomplete. The faculty member may allow up to a maximum of one year for a student to complete the course. If it is not completed within this time, the “I” will be changed to a “0%.” The student is responsible for completing the work that will remove the “I.”

The following grading symbols are used in common by all TTU Health Sciences Center Schools:

<b>Grade</b>	<b>Description</b>	<b>Grade Points Per Semester Hour</b>
“I”	Incomplete	N/A*
“W”	Withdrawal	N/A*
“WF”	Withdraw Failing	0.00
“DW”	Dropped	N/A*
“PR”	In Progress	N/A*

\*Not included in the calculation of grade point average.

### **Student Success Initiative**

The Student Success Initiative (SSI) is a program that identifies students who are at academic risk based on previous academic performance. The criteria used to select students for this program are

- Cumulative GPA less than 80%
- Overall course grade less than 70% during the previous semester
- Overall course grade less than 75% in 2 or more courses during the previous semester
- Second chance exam during the previous semester
- Annual Outcomes Assessment grade less than 70%
- Referred to program by a team leader for a course currently enrolled in due to poor performance on assessment(s)/assignments(s)

Each student in the SSI program is required to meet with a Student Success Initiative member. They are asked to reflect on their previous academic performance, and they are given guidelines to develop an action plan for improvement. The Student Success Initiative member offers guidance, suggestions, and support to the student as they review the SSI Action Plan together.

### Progression

Students who satisfy the stated requirements of each professional year will remain in good academic standing and will advance to the next professional year. The Student Affairs and Progressions Committee will review every student's academic performance as measured by grades in courses attempted and in mastering defined curricular outcome expectations. These performance measures will serve as the basis for annual progression recommendations. The Student Progressions Committee may recommend to the Dean full progression, a reduced load curriculum, remediation activities in areas where the student has documented deficiencies, academic probation, or dismissal. This progression will serve as the determination of a student's class standing for purposes of course pre-requisites.

### Academic Probation:

Students may be placed on academic probation for one of the following reasons:

- Course failure
  - Each instance in which a student completes a course with a grade less than 70%, regardless of semester in which the failure occurred. Based on the number of course failures or in combination with one of the reasons below, a student may advance more than one level of probation even in a single semester.
- Academic or professional misconduct
- Failure to achieve the minimum standard on the Pharmacy Curriculum Outcomes Assessment (PCOA) examination
  - The PCOA minimum requirement applies only to the most recent administration of the exam. In some specific circumstances improved PCOA performance in a subsequent year can ameliorate academic probation level associated with previous poor PCOA performance. See SOP OP: 77.P.26 for specific circumstances.

Each single strike or combination of strikes determines the student's academic probation level as described below.

#### Academic Probation, Level 1:

- Defined as the first instance in which one of the above progression requirements are not met.
  - Students on Academic Probation, Level 1 may continue enrolling only in courses for which the student has successfully completed course prerequisites. Students must enroll in any course or courses failed at the next time of offering.

#### Academic Probation, Level 2:

- Defined as the second instance in which any of the above progression requirements are not met.
  - Students on Academic Probation, Level 2 may continue enrolling only in courses for which the student has successfully completed course prerequisites unless the Level 2 probation is invoked due to two instances of semesters with course failure(s). In this case, the student will be prohibited from enrolling in any new required SOP classes until all failures are corrected. The student may petition for additional classes to be taken, and these petitions will be reviewed by the Student Progressions Committee with a recommendation made to the Dean.

#### Academic Probation, Level 3:

- Defined as the third instance in which any of the above progression requirements are not met.
  - Academic Probation, Level 3 will result in dismissal from the School of Pharmacy.

Additionally, any student who does not successfully complete each course each semester may be required by the Progressions Committee to remediate any deficiencies identified.

### Course Failures Resulting From Sanctions Secondary to Academic or Professional Misconduct

A first course failure resulting from sanctions enforced due to professional misconduct may result in the student being placed on academic probation. If the student is in good standing at the time, the student will be placed on first probation. If the student is already on probation, then the failure will raise the student's probation by 1 level (i.e., 1<sup>st</sup> to 2<sup>nd</sup> or 2<sup>nd</sup> to Dismissal). A second course failure resulting from sanctions due to academic or professional misconduct, regardless of semester, may result in student dismissal from the school.

### Honor Council

The purpose of the Texas Tech Health Sciences Center School of Pharmacy Honor Council is to serve as student and faculty representatives who foster and uphold the School of Pharmacy Code of Professional and Academic Conduct. The Honor Council also serves to promote integrity as well as develop a culture of honesty and student accountability within the school and their respective classes. The Honor Council will convene and provide rulings over student violations of the Code of Professional and Academic Conduct and to promote integrity and accountability. The Honor Council will provide recommended sanctions when a rules violation has been committed and submit summary reports directly to the Dean of the School of Pharmacy as well as report back to their classes.

[https://hscweb.ttuhschool.edu/pharmacy/documents/administration/policies/SOP\\_OP\\_77.P.27\\_School\\_of\\_Pharmacy\\_Honor\\_Council.pdf](https://hscweb.ttuhschool.edu/pharmacy/documents/administration/policies/SOP_OP_77.P.27_School_of_Pharmacy_Honor_Council.pdf)

### Campus Assignment Policy

To access the SOP's policy on campus reassignment, please link to the School's website:

[https://hscweb.ttuhschool.edu/pharmacy/documents/administration/policies/SOP\\_OP\\_77\\_P\\_20\\_Campus\\_Assignment\\_for\\_3rd\\_and\\_4th\\_Professional\\_Years.pdf](https://hscweb.ttuhschool.edu/pharmacy/documents/administration/policies/SOP_OP_77_P_20_Campus_Assignment_for_3rd_and_4th_Professional_Years.pdf)

### Withdrawal Policy (from courses)

**Semester-long Courses:** In order to be assured of an official withdrawal from a professional school course, the student must have completed and submitted a course withdrawal request to the Office of Student Services before the beginning of the 12th day of the term.

**8-week Courses:** In order to be assured of an official withdrawal from a professional school 8-week course, the student must have completed and submitted a course withdrawal request to the Office of Student Services before the beginning of the 6th weekday following the first day of class.

**Rotations:** In order to be assured of an official withdrawal from a professional school rotation, the student must have completed and submitted a course withdrawal request to the Office of Student Services before the end of the 4th weekday following the first day of the rotation.



**6-week Courses:** In order to be assured of an official withdrawal from a professional school 6-week course, the student must have completed and submitted a course withdrawal request to the Office of Student Services before the end of the 4th weekday following the first day of class.

**4-week Courses:** In order to be assured of an official withdrawal from a professional school 4-week course, the student must have completed and submitted a course withdrawal request to the Office of Student Services before the end of the 3rd weekday following the first day of class.

**2-week Courses:** In order to be assured of an official withdrawal from a professional school 2-week course, the student must have completed and submitted a course withdrawal request to the Office of Student Services before the end of the 2nd weekday following the first day of class.

Students who do not complete a course and who do not officially withdraw from that course will receive the grade calculated for their performance had they remained in the course.

### Second Chance Policy

The Second Chance Policy applies to all courses except Clinical Correlations, Grand Rounds, and experiential rotations. A Doctor of Pharmacy student, if eligible, may take a single comprehensive examination to demonstrate competency in that course providing

- the student has passed 50% or more of the major assessments in that course,
- the student has earned a final grade of 60-69% in the course, and
- the student has not exceeded the number of second chance attempts as outlined below.

A student may invoke the Second Chance Policy in a maximum of two courses per semester and no more than four times total in his/her career at the School. No student may invoke the second chance exam for the same course twice. The second chance assessment shall occur in a timely fashion, the timing at the discretion of the course team. The link to the policy is:

[https://hscweb.ttuhschool.edu/pharmacy/documents/administration/policies/sop\\_op\\_77p15\\_second\\_chance\\_exam\\_policy.pdf](https://hscweb.ttuhschool.edu/pharmacy/documents/administration/policies/sop_op_77p15_second_chance_exam_policy.pdf)

### Course Prerequisites

The curriculum is designed to follow a logical and academically sound sequence of courses. P-2 courses may not be taken without the permission of the Progression Committee or until the student is formally advanced to P-2 standing. P-3 courses may not be taken without the permission of the Progression Committee or until the student is formally advanced to P-3 standing. P-4 rotations may not be taken until all previous P-1 through P-3 course work is satisfactorily completed.

### Enrollment Without Credit - Course Audit

Persons who wish to audit a course for no grade must obtain written permission from the dean of the pharmacy school. Those who audit a course do so for the purpose of hearing or seeing only; they do not have the privilege of participating in class discussions or laboratory or field work, of turning in papers, or of receiving a grade or credit in the course. Students who audit a course will not be listed on the class roll, and no notation of the audit will be made on the student's transcript.

Students who are enrolled for 12 semester hours or more may audit a course without paying an additional fee. Students who are enrolled for fewer than 12 hours must pay a \$10 fee for auditing a course.

### Code of Professional Conduct

You are expected to subscribe to the Code of Ethics of the American Pharmaceutical Association and the School of Pharmacy Code of Student Conduct. Students who have been found to be in violation of this code of ethics will be disciplined. The Code of Ethics and Code of Student Conduct is printed in the *Texas Tech University Health Sciences Center Student Affairs Handbook*, which can be found at the Texas Tech University Health Sciences Center web site.

### Attendance

Regular attendance is necessary for satisfactory achievement. Therefore, it is the responsibility of the student to attend class in accordance with the requirements of the course as established by the faculty of Texas Tech University Health Sciences Center School of Pharmacy.

### Computer Literacy

Pharmacy is an information intensive profession and its practice relies heavily on tools such as the computer. Listed below are the minimal computing skills required while in the School of Pharmacy:

- loading and running an application software package such as word processing;
- typing a document into a word processing program;
- saving and printing a document;
- navigating the internet (e.g., email, accessing web pages)

### Academic Support Services

You are encouraged to seek assistance from the faculty. This assistance is free and faculty are a valuable resource. In addition, the Office of Student Affairs can be contacted by students demonstrating any indication of academic difficulty to explore possible areas of appropriate counseling or referral for resolution. Academic difficulty resulting from personal problems may be resolved through a variety of available resources, including professional counseling services provided as part of student health services.

## **Curricular Competencies and Assessment**

### **Terminal Outcomes and Ability Statements**

Commensurate with the American Council on Pharmacy Education's curricular standards, the school of Pharmacy states the areas of expected competency for a pharmacy learner upon graduation from the Doctor of Pharmacy program.

[http://www.ttuhschool.edu/pharmacy/documents/academics/Terminal\\_Outcomes\\_and\\_Ability\\_Statements.pdf](http://www.ttuhschool.edu/pharmacy/documents/academics/Terminal_Outcomes_and_Ability_Statements.pdf)

Your progress in developing mastery will be assessed continually as a part of each individual course through course exams, practicums, or other assessment methods as determined by the instructional design of the course, and also annually as part of an over-arching school-wide assessment program. The purpose of this combined assessment approach is to help you evaluate your personal and professional development, help you identify areas of needed remediation, and help the faculty monitor the overall performance of the curriculum in achieving the expected outcomes

## **Pre-APPE Assessment**

The academic program is designed to provide Pharm.D. candidates with opportunities to develop the knowledge, skills, and behaviors required of a competent and ethical practicing pharmacist. The program's fourth academic year, comprised of Advance Pharmacy Practice Experiences (APPEs), is designed to provide candidates with opportunities to 1) practice acquired skills, 2) use learned pharmacy knowledge, and 3) exhibit professional behaviors. To ensure that candidates have the knowledge and skills essential to candidate success and patient safety during these experiences, an assessment program of the Pre-APPE curriculum, consisting of professional years 1, 2, and 3 is conducted. This includes assessment of basic drug knowledge via the **Drug Knowledge Assessment (DKA), typically administered early in the Spring semester to students in the P3 year.** Each P3 candidate must provide proof of drug knowledge competency through achievement of 75% or greater score upon the DKA. P3 candidates failing to meet or exceed the DKA's criterion will be required to successfully complete remediation exercises and to pass the DKA prior to enrollment within the program's Advanced Pharmacy Practice Experiences (P4 clerkships). The cost of the remediation may be borne by the student.

The DKA will cover the following domains:

- Drug name identification (brand and generic)
- Normal dosing
- Indication
- Contraindications
- Mechanism of action
- Drug interactions
- Side effects
- Lab assessment
- Pharmacokinetics/Pharmacodynamics

Medications included in the DKA are derived from the top 200 prescribed out-patient medications and those commonly used in Health Systems. A list of those medications being evaluated will be made available to the candidates each year prior to the DKA date.

## **Graduation**

Students are eligible for graduation upon successful completion of all academic and clinical (Professional Practice Experiences) requirements and documented competency in the P4 annual assessment. The student will earn a minimum of 169 credit hours, a minimum grade point average of 75, and is responsible for knowing and satisfying degree and graduation requirements. Students must be enrolled in the term in which they plan to graduate.

## Program of Study

### **Year 1**

Students will be taught basic biomedical and pharmaceutical sciences. Pharmaceutical sciences include the study of physical, chemical, and biological aspects of drug dosage forms; drug action; and pharmacotherapy. Students also begin developing their pharmacy practice and patient care knowledge and skills through several courses and the first of a longitudinal Professional Practice Experience clerkship that will continue through the second year.

### **Year 2**

The focus is on studies of disease states and pharmacotherapy. Students learn special skills in therapeutically dosing and monitoring patients with potentially toxic therapeutic agents. Clinical practice knowledge and skills are developed through studying the use, and potential problems with, commonly prescribed medications. Basic physical assessment skills for therapeutic drug monitoring are introduced. Students continue the development of their practice knowledge and skills through the longitudinal Introductory Professional Practice Experience clerkship in community pharmacy practice.

### **Year 3**

This year continues studies of disease states and pharmacotherapy. Drug distribution and control skills within community and institutional practices are a major focus in Professional Practice clerkships. Skills for managing drug therapy and providing case management are provided through clerkships in patient care facilities. Students are required to complete (4) six-week rotations (1/2 day for four days a week). These rotations include inpatient clinical skills, ambulatory clinical skills, basic hospital, and basic community and may be based at any of the Texas Tech University Health Sciences Center campuses at Amarillo, Abilene, Dallas, and Lubbock. Relocation travel and living expenses are the student's responsibility.

### **Year 4**

Devotes 48 weeks to full-time clinical pharmacy experiences in various patient care sites. These rotations are as follows: six weeks adult medicine, six weeks pediatrics, six weeks geriatrics, six weeks general primary care, six weeks rural community practice, six weeks hospital / health system practice, and two electives of six weeks duration each, depending on the student's practice interests. The fourth year may be based at any of the Texas Tech University Health Sciences Center campuses at Amarillo, Dallas, Abilene, and Lubbock. Relocation travel and living expenses are the student's responsibility.

## 2023-2024 CURRICULUM PLANNER\*

### P0 Preparation for Fall Semester

**Orientation**                      During the 1 week prior to Fall Semester Start

### P1 Fall Semester

<u>Credit Hours</u>	<u>Course Name and Number</u>
0	PHAR 1101 Introduction to Pharmacy Practice I (Longitudinal Course – Enrollment in Spring only)
2	PHAR 1220 Foundations in Pharmacy Practice
4	PHAR 1430 Biological Foundations in Pharmacy and Patient Assessment with lab
4	PHAR 1432 Pharmacy Immunology and Microbiology with Clinical Immunizations lab
4	PHAR 1440 Molecular Foundations of Therapeutics
4	PHAR 1460 Pharmacy Science and Calculations
2	PHAR 1250 Clinical Correlations 1
0	Co-curricular / Inter-professional (IPE) activity requirement**

20

### P1 Spring Semester

<u>Credit Hours</u>	<u>Course Name and Number</u>
1	PHAR 1101 Introductory Professional Practical Experiences
2	PHAR 1233 Principles of Disease
2	PHAR 1240 Applied Medicinal Chemistry
4	PHAR 1431 Biological Foundations in Pharmacy and Patient assessment II with lab
4	PHAR 1441 Principles of Drug Structure and Action
4	PHAR 1461 Pharmacy Formulations and Compounding with Lab
2	PHAR 1251 Clinical Correlations 2
0	Co-curricular / IPE activity requirement**

19

### P2 Fall Semester

<u>Credit Hours</u>	<u>Course Name and Number</u>
4	PHAR 2401 Integrated Therapeutics and Practice I (Cardiovascular)
4	PHAR 2402 Integrated Therapeutics and Practice II (Renal/Respiratory)
4	PHAR 2420 Principles of Self Care, Health, and Wellness Promotion
2	PHAR 2210 Clinical Research and Drug Literature Evaluation
2	PHAR 2218 Practice Management I: Health Systems and Policy
2	PHAR 2220 Applied Patient Care Lab
2	PHAR 2250 Clinical Correlations 3
0	PHAR 2101 Introductory Professional Practical Experiences (Longitudinal Course – Enrollment in Spring only)
0	Co-curricular / IPE activity requirement**

20

## P2 Spring Semester

<u>Credit Hours</u>	<u>Course Name and Number</u>
4	PHAR 2460 Basic and Applied Pharmacokinetics
4	PHAR 2403 Integrated Practice and Therapeutics III (Endocrine, Reproduction, Bone and Joint, Integumentary)
4	PHAR 2404 Integrated Therapeutics and Practice IV (Infectious Diseases)
4	PHAR 2419 Practice Management II: Leadership, Law and Ethics§
2	PHAR 2261 Parenterals and Specialty Pharmaceuticals with lab
2	PHAR 2251 Clinical Correlations 4
1	PHAR 2101 Introduction to Pharmacy Practice II (Longitudinal Course – Enrollment in Spring only)
0	Co-curricular / IPE activity requirement**
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21	

§Students enrolled in the PharmD/MBA dual degree program take PHAR 2219 in place of PHAR 2419, along with PHAR 5372 Advanced Leadership and Ethics. See Pharm.D/MBA mini catalogue for specific details of the MBA course plan.

## P3 Fall Semester

<u>Credit Hours</u>	<u>Course Name and Number</u>
2	PHAR 3219 Practice Management: Institutional and Community Pharmacy Operations
2	PHAR 3250 Clinical Correlations 5
4	PHAR 3405 Integrated Therapeutics and Practice V (Neuro and Psych)
4	PHAR 3406 Integrated Therapeutics and Practice VI (GI and Hep)
0	Co-curricular / IPE activity requirement**
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12 + _	Varies based on number of elective hours and rotation hours taken. See below:

6 Six hours of electives required. These are primarily offered during the fall and spring semesters and most are designated as requiring P3 standing. Options for satisfying elective credits outside the traditional schedule or outside the 3<sup>rd</sup> professional year are available and are designated as off-schedule electives. Elective offerings will vary based on faculty availability. Each elective course contains two credit hours. See list of course descriptions for elective courses available in this academic cycle.

A total of 4 rotations are required, but rotations may be taken in the fall or spring semester and there is the option to take a rotation during the Summer term by request; electives running during the morning sessions in the fall and spring semesters are taken when not enrolled in a clerkship rotation.

2	PHAR 4270 Community Pharmacy Practice Rotation
2	PHAR 4274 Institutional Pharmacy Practice Rotation
2	PHAR 4275 Ambulatory Clinical Skills Rotation
2	PHAR 4276 Inpatient Clinical Skills Rotation
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## P3 Spring Semester

<u>Credit Hours</u>	<u>Course Name and Number</u>
2	PHAR 3218 Practice Management: Financial Management
2	PHAR 3251 Clinical Correlations 6
4	PHAR 3407 Integrated Therapeutics and Practice VII (Heme/Onc/Pain)

4	PHAR 3420 Clinical Toxicology and Drug Safety and Abuse
0	Co-curricular / IPE activity requirement**

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12 + \_ Varies based on number of elective hours and rotation hours taken. See below:

6 Six hours of electives required. These are primarily offered during the fall and spring semesters and most are designated as requiring P3 standing. Options for satisfying elective credits outside the traditional schedule or outside the 3<sup>rd</sup> professional year are available and are designated as off-schedule electives. Elective offerings will vary based on faculty availability. Each elective course contains two credit hours. See list of course descriptions for elective courses available in this academic cycle.

A total of 4 rotations are required, but rotations may be taken in the fall or spring semester and there is the option to take a rotation during the Summer term by request; electives running during the morning sessions in the fall and spring semesters are taken when not enrolled in a clerkship rotation.

2	PHAR 4270 Community Pharmacy Practice Rotation
2	PHAR 4274 Institutional Pharmacy Practice Rotation
2	PHAR 4275 Ambulatory Clinical Skills Rotation
2	PHAR 4276 Inpatient Clinical Skills Rotation

Elective offerings for the 2023-2024 academic year:

- PHAR 4202 Advanced Pediatrics
- PHAR 4203 Advanced Therapeutics and Practice
- PHAR 4206 Veterinary Pharmacy
- PHAR 4210 Laboratory Medicine for Health Care Professionals
- PHAR 4211 Advanced Infectious Disease
- PHAR 4213 Advanced Cardiology
- PHAR 4214 Advanced Ambulatory Care
- PHAR 4215 Advanced Geriatrics
- PHAR 4216 Cultural Competency in Healthcare
- PHAR 4218 Advanced Oncology
- PHAR 4220 Critical Care Therapeutics

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**38 SCH for entire P3 year**

**P4 Fall Semester**

<u>Credit Hours</u>	<u>Course Name and Number</u>
2	PHAR 4200 Grand Rounds
0	Co-curricular / IPE activity requirement**

**P4 Spring Semester**

<u>Credit Hours</u>	<u>Course Name and Number</u>
1	PHAR 4110 Integrated Capstone
0	Co-curricular / IPE activity requirement**



### **P4 Summer, Fall or Spring Semesters**

Required rotations that can be taken in any of the semesters as assigned by the Experiential Office based on availability.

<b><u>Credit Hours</u></b>	<b><u>Course Name and Number</u></b>
6	PHAR 4675 Adult Medicine Rotation
6	PHAR 4656 Adult Primary Care Rotation
6	PHAR 4657 Pediatric Pharmacotherapy Rotation†
6	PHAR 4658 Geriatric Pharmacotherapy Rotation†
6	PHAR 4653 Advanced Rural Community Pharmacy Practice Rotation†
6	PHAR 4654 Advanced Hospital / Health System Practice Pharmacy Rotation
12	All students are required to do two elective rotations (Six credit hours each). Electives are selected based upon availability and assigned by the Experiential Office.

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**51 semester hours for entire P4 year**

Total hours required for graduation = 169 credit hours.\*

\*This curricular plan and associated SCH are for the Pharm.D. degree program. Additional courses/SCH required for the combined Pharm.D./MBA program are maintained in a separate catalogue listing. This planner is for a single academic cycle only.

\*\*The **Inter-professional activity** and other **co-curricular activities** are required pursuant to accreditation standards from the American Council of Pharmacy Education (ACPE) and the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC). Activities satisfying the IPE requirement are peer-reviewed and approved by the TTUHSC IPE Steering Committee and completion of the IPE requirement is reflected on the transcript and required for awarding of the diploma.

† Denotes courses associated with the **Concentration in Special Populations**

# COURSE DESCRIPTIONS FOR THE DOCTOR OF PHARMACY PROGRAM

## PHAR 1001 - ANNUAL ASSESSMENT (0:0:0)

The School continually assesses student progression toward degree attainment and provides evaluation of quality of our curriculum. This 4-year, longitudinal process includes global assessments designed to assess student knowledge, skills, and behaviors necessary for successful performance of the School's 10 terminal outcomes. The process consists of course-embedded assessments and other standardized testing. The School uses the internally administered High Risk Drug Knowledge Assessment, an internally administered skills assessment, referred to as an OSCE, and the Pharmacy Curriculum Outcomes Assessment (PCOA), developed by the National Association of Boards of Pharmacy, and as the primary assessment tools. The PCOA assesses an individual student's knowledge in four primary areas: 1) basic biomedical sciences, 2) pharmaceutical sciences, 3) Social, behavioral, and administrative pharmacy sciences, and 4) clinical sciences. Completion in the Co-curricular and Inter-professional Education requirements is also assessed as part of this global assessment program.

**Levels:** Pharmacy-Doctoral

## FIRST YEAR COURSES

### PHAR 1101 - INTRODUCTION TO PHARMACY PRACTICE I (1:0:1.25, F)

This introductory experiential course provides foundational concepts and skills required in the provision of quality patient care. Students will learn about the pharmacist patient care process, the role of a pharmacist in a diversity of practice settings; prepare for health fairs and projects aimed at serving the local community; learn about principles of professional and ethical pharmacy practices; participate in face to face interviews; be introduced to the core competencies of interprofessional education and practice; and participate in reflection activities as part of the continuing professional development process. Discussions, observation, and patient care experiences will occur longitudinally during the Fall and Spring semesters of the first professional year. This course is graded on a Pass/Fail basis. Credit will be awarded in the SPRING semester.

**Requirements:** Texas State Board of Pharmacy Intern-Trainee Licensure. Syllabus available.

**Levels:** Pharmacy-Doctoral, First year

### PHAR 1220 – FOUNDATIONS IN PRACTICE OF PHARMACY (2:0:1 F, IVC)

Develop foundational skills and behaviors essential for success in the curriculum and the profession of pharmacy. Introduces the topics of the history of pharmacy, pharmacy law, professional responsibility, leadership, teamwork, communication, and the patient care process. 16-week course. Syllabus available.

Levels: Pharmacy-Doctoral, First year Fall

**Co-requisite:** PHAR 1250

### PHAR 1250 – CLINICAL CORRELATIONS 1 (2:0:2 F)

Practical application of foundational concepts in science and the practice of pharmacy within an integrated, applied, small-group learning environment. Emphasizes the relationships between human biological and biochemical foundations, pharmacy science, professional leadership, and the practice of pharmacy. 16-week course. Syllabus available.

Levels: Pharmacy-Doctoral, First year Fall

**Co-requisite:** PHAR 1220, 1430, 1432, 1440, 1460

**PHAR 1430 – BIOLOGICAL FOUNDATIONS IN PHARMACY AND PATIENT ASSESSMENT WITH LAB (4:4:1 F)**

Students will learn how structure (anatomy) and function (physiology) are integrated in the major organ systems. That knowledge will be applied to the assessment of normal and abnormal physical function through patient simulation exercises. 16-week course. Syllabus available.

Levels: Pharmacy-Doctoral, First year Fall

**Co-requisites: PHAR 1440, 1250**

**PHAR 1432 - PHARMACY IMMUNOLOGY AND MICROBIOLOGY WITH CLINICAL IMMUNIZATIONS LAB (4:4:1, F)**

This course will focus on the immune system, enabling students to understand both the immune response to infectious agents and the nature of autoimmune diseases. The skills component will focus on the knowledge and skills necessary to qualify students as pharmacist immunizers upon graduation. **Requires CPR certification.** Students must qualify for intern licensure at end of first year to begin performing/documenting supervised vaccinations toward State Board CE requirements. 16-week course. Syllabus available.

Levels: Pharmacy-Doctoral, First year Fall

**Co-requisite: PHAR 1250**

**PHAR 1440 – MOLECULAR FOUNDATIONS OF THERAPEUTICS (4:4:0 F, IVC)**

Molecular aspects of biological processes, including the chemistry of biomolecules, enzymology, metabolic pathways, bioenergetics, biochemical control mechanisms, molecular biology and genetics. Discussion of metabolic diseases, fundamentals of nutrition and molecular diagnostics. 16-week course. Syllabus available.

Levels: Pharmacy-Doctoral, First year Fall

**Co-requisite: PHAR 1250**

**PHAR 1460 - PHARMACY SCIENCE AND CALCULATIONS (4:4:0, F, IVC)**

This course introduces physicochemical principles of pharmaceutical dosage formulations, properties of drug substances and drug products, routes of administration, process of drug development, and all aspects of pharmaceutical calculations. 16-week course. Syllabus available.

Levels: Pharmacy-Doctoral, First year Fall

**Co-requisite: PHAR 1250**

**PHAR 1233 – PRINCIPLES OF DISEASE (2:4:0 F, IVC)**

This course provides core concepts and mechanisms of the basic processes underlying diseases. Lectures will cover definitions of terminology, cells and tissues involved, morphological alterations, explanation of relevant biochemical pathways and disease pathogenesis and clinical presentation. Emphasis will be given on lifespan, sex and gender and culture differences, where applicable. 8-week course. Syllabus available.

Levels: Pharmacy-Doctoral, First year Spring, 1<sup>st</sup> eight weeks

**Co-requisite: PHAR 1251**

**PHAR 1240 APPLIED MEDICINAL CHEMISTRY (2:4:0 F, IVC)**

This introductory course is designed to facilitate understanding of fundamental concepts relating the application of medicinal chemistry to the practice of pharmacy. Basic principles of medicinal chemistry applied to the drug design and discovery process and introduction to the medicinal chemistry of drugs approved to treat major diseases. 8-week course. Syllabus available.

Levels: Pharmacy-Doctoral, First year Spring, 2<sup>nd</sup> 8 weeks **Co-requisite: PHAR 1251, 1441**

### **PHAR 1251 – CLINICAL CORRELATIONS 2 (2:0:2 F)**

Practical application of foundational concepts in science and the practice of pharmacy within an integrated, applied, small-group learning environment. Emphasizes the relationships between human biological foundations, human disease, principles of drug structure, action, and formulation, and the practice of pharmacy. 16-week course. Syllabus available.

Levels: Pharmacy-Doctoral, First year Spring

**Co-requisite: PHAR 1233, 1240, 1431, 1441, 1460**

### **PHAR 1431 – BIOLOGICAL FOUNDATIONS IN PHARMACY AND PATIENT ASSESSMENT WITH LAB (4:4:1 F)**

Students will learn how structure (anatomy) and function (physiology) are integrated in the major organ systems. That knowledge will be applied to the assessment of normal and abnormal physical function through patient simulation exercises. 16-week course. Syllabus available.

Levels: Pharmacy-Doctoral, First year Spring

**Co-requisite: PHAR 1251**

### **PHAR 1441 - PRINCIPLES OF DRUG STRUCTURE AND ACTION (4:4:0 F, IVC)**

Basic principles of pharmacology, toxicology, pharmacokinetics and physicochemical properties of drug molecules. This introductory course is designed to facilitate understanding of the fundamental concepts of pharmacology and medicinal chemistry relating to drug action. 16-week course. Syllabus available.

Levels: Pharmacy-Doctoral, First year Spring

**Co-requisite: PHAR 1251**

### **PHAR 1461 – PHARMACY FORMULATIONS AND COMPOUNDING WITH LAB (4:4:1, F)**

This course discusses compounding, dispensing, and patient counseling for various pharmaceutical dosage formulations (liquid, semisolid, solid, modified/controlled release, inhaled, and parenteral). The course allows students to practice pharmaceutical calculations and utilize compounding concepts and techniques. Topics include advanced drug delivery systems, biopharmaceuticals, drug properties influencing drug absorption and distribution, as well as drug-drug and drug-excipient interactions. 16-week course. Syllabus available.

Levels: Pharmacy-Doctoral, First year Spring

**Co-requisite: PHAR 1251**

## **SECOND YEAR COURSES**

**Enrollment in second year courses requires completion of first year curriculum. P-2 courses may not be taken without the permission of the Subcommittee on Credentialing or until the student is formally advanced to P-2 standing.**

### **PHAR 2101 - INTRODUCTION TO PHARMACY PRACTICE II (1:0:1.25 F)**

This course builds on the concepts introduced in PHAR 1101. This introductory experiential course provides foundational concepts and skills required in the provision of quality patient care. Students will be prepared for experiential rotations by learning about the pharmacist patient care process and other rotation related activities; be prepared to participate in health fairs aimed at serving the local community with the basic clinical skills which may include, but are not limited to immunizations, blood pressure, blood glucose; learn about principles of professional and ethical pharmacy practices;

participate in face-to-face interviews; observe the role of inter-professional competencies in an experiential setting ; and participate in reflection activities as part of the continuing professional development process. Discussion, observation, and patient care experiences will occur longitudinally during both the Fall and Spring semesters of the second professional year. This course is graded on a Pass/Fail basis. Credit will be awarded in the SPRING semester.

**Requirements:** Texas State Board of Pharmacy Intern-Licensure. Syllabus available.

Syllabus available

**Levels:** Pharmacy-Doctoral, Second year

### **PHAR 2210 – CLINICAL RESEARCH AND DRUG LITERATURE EVALUATION WITH LAB (2:0:1 F)**

This course focuses on developing drug information skills by providing practical experience in retrieving and evaluating medical literature, responding to drug information inquiries, and understanding the fundamentals of experimental design, implementation, and data analysis pertinent to pharmaceutical clinical investigations, including bioethics of human subject research.

16-week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Second year

**Co-requisite:** PHAR 2250

### **PHAR 2218 – PRACTICE MANAGEMENT - HEALTH SYSTEM AND POLICY (2:2:0 F, IVC)**

Provides an introduction to healthcare delivery within the United States and global health care systems with a focus upon building student understanding of principles to achieve maximum value from the delivery of pharmaceutical services. Topics include medication use trends, social and behavioral aspects of health care, health informatics, public health/promotion, and the economics of healthcare.

16-week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Second year

**Co-requisite:** PHAR 2250

### **PHAR 2220 – APPLIED PATIENT CARE LAB (2:0:1 F)**

Building on the pharmacist's patient care process, this course includes exercises in interviewing and counseling, prospective drug reviews, prescription dispensing, patient assessment, and clinical note writing.

16-week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Second year **Co-requisite:** PHAR 2250

### **PHAR 2250 – CLINICAL CORRELATIONS 3 (2:0:2 F)**

Practical application of concepts in science and the practice of pharmacy within an integrated, applied, small-group learning environment. Emphasizes the relationships between therapeutics, patient care skills, practice management health systems and policy, research and literature evaluation, and patient self-care, health, and wellness promotion. Key foundational concepts in science and the practice of pharmacy are also reinforced in the context of advanced scenarios.

**Co-requisites:** PHAR 2401, 2402, 2420, 2210, 2218, 2220

### **PHAR 2401 – INTEGRATED THERAPEUTICS AND PRACTICE I (4:4:0 F, IVC)**

This series highlights the therapeutic management of common disease states and clinical problems. Organized by organ system and integrating foundational sciences with clinical care, topic coverage spans pathophysiology, epidemiology, and clinical presentation in men and women across the lifespan and demonstrates how the chemistry and pharmacology of common therapeutic agents are applied to

the management of patients in both acute and chronic care in a variety of health-system contexts. As the first course in this series, the organ system of focus is the Cardiovascular system.

16-week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Second year

**Co-requisite:** PHAR 2250

### **PHAR 2402 – INTEGRATED THERAPEUTICS AND PRACTICE II (4:4:0 F, IVC)**

This series highlights the therapeutic management of common disease states and clinical problems. Organized by organ system and integrating foundational sciences with clinical care, topic coverage spans pathophysiology, epidemiology, and clinical presentation in men and women across the lifespan and demonstrates how the chemistry and pharmacology of common therapeutic agents are applied to the management of patients in both acute and chronic care in a variety of health-system contexts. As the second course in this series, the organ systems of focus are the Renal and Respiratory systems.

16-week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Second year

**Co-requisite:** PHAR 2250

### **PHAR 2420 – PRINCIPLES OF SELF-CARE, HEALTH AND WELLNESS PROMOTION (4:4:0 F, IVC)**

Building on concepts of the patient care process, emphasis is placed on the pharmacist's professional role in patient consultation, assessment, communication, and monitoring in the ambulatory or community pharmacy environment. Topic areas include the pharmacology, clinical use, and legal/professional issues regarding common non-prescription medications, non-pharmacologic modalities, herbals, and medical devices used in ambulatory pharmacy practice to treat minor medical problems. Particular emphasis is placed on triaging patients between self-care and formal environments as well as documentation in this setting.

16-week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Second year

**Co-requisite:** PHAR 2250

### **PHAR 2251 – CLINICAL CORRELATIONS 4 (2:0:2 F)**

Practical application of concepts in science and the practice of pharmacy within an integrated, applied, small-group learning environment. Emphasizes the relationships between therapeutics, practice skills, pharmacy operations, and pharmacokinetics. Key foundational concepts in science and the practice of pharmacy are also reinforced in the context of advanced scenarios.

**Levels:** Pharmacy-Doctoral, Second year

**Co-requisites:** PHAR 2460, 2403, 2404, 2419, 2261

### **PHAR 2261 – PARENTERALS AND SPECIALTY PHARMACEUTICALS (2:2:1 F)**

Using a weekly lecture/laboratory format, this course will focus on the performance of aseptic technique, preparation of small and large volume parenterals, safe handling of chemotherapy agents, regulatory issues, parental calculations and quality assurance and documentation. This course is designed to culminate in the student being proficient in compounding of sterile products.

16-week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Second year

**Co-requisite:** PHAR 2251



### **PHAR 2403 – INTEGRATED THERAPEUTICS AND PRACTICE III (4:4:0 F, IVC)**

This series highlights the therapeutic management of common disease states and clinical problems. Organized by organ system and integrating foundational sciences with clinical care, topic coverage spans pathophysiology, epidemiology, and clinical presentation in men and women across the lifespan and demonstrates how the chemistry and pharmacology of common therapeutic agents are applied to the management of patients in both acute and chronic care in a variety of health-system contexts. As the third course in this series, the organ systems of focus are the Integumentary, Musculoskeletal, Endocrine, and Reproductive systems.

16-week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Second year

**Co-requisite:** PHAR 2251

### **PHAR 2404 – INTEGRATED THERAPEUTICS AND PRACTICE IV (4:4:0 F, IVC)**

This series highlights the therapeutic management of common disease states and clinical problems. The fourth course in this series, the topic focus is Infectious Diseases. Spanning multiple organ systems and integrating foundational sciences with clinical care, topic coverage includes the pathophysiology, microbiology, and clinical presentation of infectious diseases; medicinal chemistry, pharmacology, and toxicology of anti-infective agents; prevention and therapeutic management of patients with common infections. The therapeutic focus distinguishes, where appropriate the management of men and women across the lifespan in both acute and chronic care in a variety of health-system contexts.

16-week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Second year

**Co-requisite:** PHAR 2251

### **PHAR 2419 - PHARMACY OPERATIONS (2:4:1 F, IVC)**

This course provides students the foundations of ethical leadership within the healthcare environment in their roles as employee, manager, and effective leader. Students will learn state and federal laws regulating pharmacy, healthcare and the administration of human resources. Application of laws, ethical dilemmas, and other management problems in the pharmacy environment will be illustrated in the classroom utilizing case studies, court cases, and role-playing.

16-week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Second year

**Co-requisite:** PHAR 2251

### **PHAR 2460- BASIC AND APPLIED PHARMACOKINETICS (4:4:0 F, IVC)**

This course introduces the basic principles of pharmacokinetics, including compartmental and physiological analysis of the time courses of drug absorption, distribution, metabolism and elimination with emphasis on the pharmacokinetic based design of dosage regimens. Using pharmacokinetic modeling and calculations, the application portion of the course demonstrates how pharmacokinetic and pharmacodynamics principles are used to individualize drug dosing regimens to drug specific, disease specific, or patient specific needs for male or female patients across the lifespan.

16-week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Second year

**Co-requisite:** PHAR 2251

## **THIRD YEAR COURSES**

**Enrollment in third year courses requires completion of second year curriculum. P-3 courses may not be taken without the permission of the Subcommittee on Credentialing or until the student is formally advanced to P-3 standing.**

### **PHAR 3250 – CLINICAL CORRELATIONS 5 (2:0:1 F)**

Practical application of concepts in science and the practice of pharmacy within an integrated, applied, small-group learning environment. Emphasizes the relationships between therapeutics and pharmacy operations. Key foundational concepts in science and the practice of pharmacy are also reinforced in the context of advanced scenarios.

**Levels:** Pharmacy-Doctoral, Third year Fall

**Co-requisites:** PHAR 3405, 3406, 3218

### **PHAR 3405 – INTEGRATED THERAPEUTICS AND PRACTICE V (4:4:0 F, IVC)**

This series highlights the therapeutic management of common disease states and clinical problems. Organized by organ system and integrating foundational sciences with clinical care, topic coverage spans pathophysiology, epidemiology, and clinical presentation in men and women across the lifespan and demonstrates how the chemistry and pharmacology of common therapeutic agents are applied to the management of patients in both acute and chronic care in a variety of health-system contexts. As the fifth course in this series, the therapeutic areas of focus are Neurosensory and Psychiatry.

16-week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Third year Fall

**Co-requisite:** PHAR 3250

**Pre-requisites:** PHAR 1220, 1233, 1240, 1431, 1441, 1460

### **PHAR 3406 – INTEGRATED THERAPEUTICS AND PRACTICE VI (4:4:0 F, IVC)**

This series highlights the therapeutic management of common disease states and clinical problems. Organized by organ system and integrating foundational sciences with clinical care, topic coverage spans pathophysiology, epidemiology, and clinical presentation in men and women across the lifespan and demonstrates how the chemistry and pharmacology of common therapeutic agents are applied to the management of patients in both acute and chronic care in a variety of health-system contexts. As the sixth course in this series, the organ systems and therapeutic areas of focus are the Gastrointestinal and Hepatic systems, as well as obesity, nutrition, and wellness.

16-week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Third year Fall

**Co-requisite:** PHAR 3250

**Pre-Requisite –** PHAR 1220, 1233, 1240, 1431, 1441

### **PHAR 3218 – PRACTICE MANAGEMENT: FINANCIAL MANAGEMENT (2:0:1 F, IVC)**

This course focuses on the healthcare provider as entrepreneur working to develop new services which improve healthcare and the delivery of healthcare to the patient. Effective entrepreneurship requires the development of a business plan and the ability to communicate financial concepts to administration and/or investors. This course provides an overview of financial management concepts as they relate to pharmacy practice and the development of the business plan.

16-week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Third year Spring

**Co-requisite:** PHAR 3251

### **PHAR 3219 – INSTITUTIONAL/COMMUNITY PHARMACY OPERATIONS (2:0:1 F, IVC)**

This course focuses upon the skills required to manage the operational aspects of community and institutional pharmacies. Students will learn skills associated with the expanded focus on drug therapies, quality control, cost containment, procurement of equipment and design to facilitate the workflow of the pharmacy, and other skills necessary to guarantee the efficient and effective operation of the institutional and community pharmacies. Additional topics such as continuity of care will be discussed.

16-week course. Syllabus available.

Levels: Pharmacy-Doctoral, Third year Fall

**Co-requisite: PHAR 3251**

### **PHAR 3251 – CLINICAL CORRELATIONS 6 (2:0:1 F)**

Practical application of concepts in science and the practice of pharmacy within an integrated, applied, small-group learning environment. Emphasizes the relationships between therapeutics, medication safety, pharmacy operations. Key foundational concepts in science and the practice of pharmacy are also reinforced in the context of advanced scenarios.

**Co-requisites: PHAR 3407, 3420, 3219**

### **PHAR 3407 – INTEGRATED THERAPEUTICS AND PRACTICE VII (4:4:0 F, IVC)**

This series highlights the therapeutic management of common disease states and clinical problems. Organized by organ system and integrating foundational sciences with clinical care, topic coverage spans pathophysiology, epidemiology, and clinical presentation in men and women across the lifespan and demonstrates how the chemistry and pharmacology of common therapeutic agents are applied to the management of patients in both acute and chronic care in a variety of health-system contexts. As the seventh course in this series, the organ systems and therapeutic areas of focus are Oncology and Hematology, as well as pharmacogenomics, pain, palliative and end of life care.

16-week course. Syllabus available.

Levels: Pharmacy-Doctoral, Third year Spring

**Co-requisite: PHAR 3251**

**Pre-requisites: PHAR 1220, 1233, 1240, 1431, 1432, 1441, 1460**

### **PHAR 3420 – CLINICAL TOXICOLOGY AND DRUG SAFETY AND ABUSE (4:4:0 F, IVC)**

This course focuses on the toxicology and clinical treatment of overdoses of common therapeutic agents and poisons. Integrating both foundational sciences and clinical care, topic coverage includes common drugs of abuse as well as concepts of patient safety.

16-week course. Syllabus available.

Levels: Pharmacy-Doctoral, Third year Spring

**Co-requisite: PHAR 3251**

**Pre-requisites: PHAR 1220, 1233, 1240, 1431, 1441, 3405, 2401**

### **PHAR 4270 - COMMUNITY PHARMACY PRACTICE ROTATION (2:0:16 F)**

As a P3 IPPE clerkship, this course exposes the learner to pharmaceutical care in various community pharmacies. Four hours, four mornings each week for 6 weeks. Syllabus available.

**Levels:** Pharmacy-Doctoral. Third year. rotation block assigned by Experiential office.

### **PHAR 4274 - INSTITUTIONAL PHARMACY PRACTICE ROTATION (2:0:16 F)**

As a P3 IPPE clerkship, this course exposes the learner to practical experiences in unit dose drug distribution systems and preparation of sterile products. Four hours, four mornings each week for 6 weeks. Syllabus available.

**Levels:** Pharmacy-Doctoral. Third year. rotation block assigned by Experiential office.

#### **PHAR 4275 - AMBULATORY CLINICAL SKILLS ROTATION (2:0:16 F)**

On this P3 IPPE clerkship, students will use their content knowledge and communication abilities obtained in the classroom and laboratory to learn and or improve their basic clinical skills provided in the outpatient health care setting. This clerkship is designed to enhance the student's understanding of the unique characteristics of patients, communication skills, physical assessment skills, and pharmacotherapy management of chronic or acute disease states in the ambulatory care setting to improve the student's necessary abilities to provide direct patient pharmaceutical care and disease management. Four hours, four mornings each week for 6 weeks. Syllabus available.

**Levels:** Pharmacy-Doctoral. Third year. rotation block assigned by Experiential office.

#### **PHAR 4276 - INPATIENT CLINICAL SKILLS ROTATION (2:0:16 F)**

As a P3 IPPE clerkship, this course exposes the learner to pharmaceutical care in the inpatient setting, including development of basic clinical skills in the care of inpatients. Rotations may be completed in any inpatient care environment. Four hours, four mornings each week for 6 weeks. Syllabus available.

**Levels:** Pharmacy-Doctoral. Third year. rotation block assigned by Experiential office.

#### **PHAR 4202 - ADVANCED PEDIATRICS (2:5.3:0 F, IVC)**

**ELECTIVE COURSE.** Through a series of lectures, discussions, and a project, students become familiar with the pathophysiology, clinical presentation, epidemiology, and therapeutic management of common and select pediatric disease states. The student will also develop and improve upon skills such as self-directed learning, clinical and interpersonal skills, and professional values and behaviors. Asynchronous semester-long course. Syllabus available.

**Levels:** Pharmacy-Doctoral. Third year

#### **PHAR 4203 - ADVANCED THERAPEUTICS AND PRACTICE (2:5.3:0 F, IVC)**

**ELECTIVE COURSE.** The Advanced Therapeutics and Practice Elective is designed to build upon and enhance continuous professional development skills within pharmacy practice. The elective is intended to build upon the core disease state knowledge learned in the pharmacotherapy sequence. This elective is designed to hone continuous professional development skills to apply and assess patient cases. The elective will review therapeutic management strategies, national clinical guidelines, and clinical trial data to make clinical decisions in both simple and complex patient cases.

**Levels:** Pharmacy-Doctoral. Third year

#### **PHAR 4206 - VETERINARIAN PHARMACY (2:5.3:0 F, IVC)**

**ELECTIVE COURSE.** Study of the pharmacist's professional role regarding veterinarian products and medical devices common to veterinarian pharmacy practice, emphasis on diseases of animals and the effectiveness, safety, limitations and composition of therapeutic entities used in the treatment of animal diseases. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral. Third year

#### **PHAR 4210 - LABORATORY MEDICINE FOR HEALTHCARE PROFESSIONALS (2:5.3:0 F, IVC)**

**ELECTIVE COURSE.** Review of modern laboratory practices for medical diagnostics and explanation of result interpretation. This course also includes common troubleshooting practices and guidelines to check for typical problems that arise during laboratory diagnostics; additionally, the course emphasizes diagnostics performed with rapid turnaround and thus would be most likely to be used by the pharmacist themselves.

**Levels:** Pharmacy-Doctoral. Third year

**PHAR 4211 - ADVANCED INFECTIOUS DISEASES (2:5.3:0 F, IVC)**

**ELECTIVE COURSE.** In-depth, primary literature-based perspective of infectious diseases including a focus on resistant pathogens and the importance of appropriate pharmacodynamics in the treatment of infections. This course will also provide information on novel and innovative topics such as the pharmacist's role in emergency preparedness, antimicrobial management techniques, and home IV antibiotic therapy to provide students with a broader knowledge of infectious diseases in pharmacotherapy. 6 week course. Syllabus available.

**PREREQ: PHAR 2404**

**Levels:** Pharmacy-Doctoral. Third year

**PHAR 4213 - CURRENT TOPICS IN PHARMACY PRACTICE: ADVANCED CARDIOLOGY (2:5.3:0 F, IVC)**

**ELECTIVE COURSE.** The Advanced Cardiology Elective is designed to expose students to advanced therapeutic topics within cardiovascular pharmacotherapy. A contemporary focus on late-breaking cardiovascular topics, important for pharmacists, along with the chemistry, pharmacology, and toxicology of novel therapeutic agents used to treat cardiovascular diseases is provided. 6 week course. Syllabus available.

**PREREQ: PHAR 2401**

**Levels:** Pharmacy-Doctoral. Third year

**PHAR 4214 - SPECIAL TOPICS IN ADVANCED PATIENT MANAGEMENT IN AMBULATORY CARE (2:5.3:0 F, IVC)**

**ELECTIVE COURSE.** The Advanced Ambulatory Care Elective is designed to expose students to advanced topics within the ambulatory care practice setting. The elective is intended to build upon the core disease state knowledge learned in the pharmacotherapy sequence and introduce or expand upon topics either not covered or only briefly discussed by the respective pharmacotherapy course. This elective will focus on the assessment and outpatient management of core ambulatory care topics, including (but not necessarily limited to) diabetes, hypertension, hyperlipidemia, anticoagulation, and heart failure. Students will review therapeutic management strategies, national clinical guidelines, and clinical trial data to make clinical decisions in both simple and complex patients. 6 week course. Syllabus available.

**PREREQS: PHAR 2401, 2403**

**Levels:** Pharmacy-Doctoral. Third year

**PHAR 4215 - ADVANCED GERIATRICS ELECTIVE (2:5.3:0 F, IVC)**

**ELECTIVE COURSE.** This course will involve advanced discussion of the pathophysiology/ pharmacotherapy for commonly seen geriatric disease states. The course will also provide the opportunity to explore issues related to drug therapy in the elderly population across various practice settings. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral. Third year

**PHAR 4216 - CULTURAL COMPETENCY IN HEALTHCARE (2:5.3:0 F, IVC)**

**ELECTIVE COURSE.** Many states are mandating that health care providers be trained in, and implement, “cultural/diversity” awareness into their practices. This elective will be a journey for those enrolled to increase awareness and understanding of the unique cultural needs to enable them to provide optimal care for their patients. The course will not have traditional examination assessments, rather assessments will focus on cultural experience activities, which will increase the students’

awareness of the flaws in many of our traditional communications and assumptions when caring for patients. The goal of this course is to enhance student awareness of differing beliefs and practices which influence everything from patient assessment to patient acceptance of, and adherence to, their medical care plan. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral. Third year

### **PHAR 4218 – ADVANCED ONCOLOGY (2:5.3:0 F, IVC)**

**ELECTIVE COURSE.** This course will build on the foundations of knowledge in cancer physiology and pharmacotherapy to support the in-class discussions and understanding of cutting-edge and literature-based perspectives in medical oncology. This course will focus on major challenges in cancer therapy (drug resistance, host toxicity, cancer metastasis) and new anti-cancer drug discovery and development. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral. Third year

### **PHAR 4220 – CRITICAL CARE THERAPEUTICS (2:5.3:0 F, IVC)**

**ELECTIVE COURSE.** The Critical Care Therapeutics elective course is designed to expose students to the pathophysiology and clinical presentation of common diseases, pharmacotherapy, and decision making process for the treatment of patients who are critically ill. This elective is intended to build upon the core disease state knowledge learned in the pharmacotherapy sequence and introduce, or expand upon, topics either not covered or only briefly discussed in the the respective P2 and P3 pharmacotherapy course. A focus of the content will pertain to the acute care assessment and management of core critical care related topics allowing the students to apply knowledge in therapeutic management strategies, national clinical guidelines, and clinical trial data to make clinical decisions in both simple and complex patients. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral. Third year

### **PHAR 4226 - SPECIAL TOPICS (2:0:16 F)**

**ELECTIVE COURSE.** Advanced studies in administrative, behavioral, clinical, or pharmaceutical sciences. May be taken for a total of 4 credit hours. Must take two courses. 6 week course.

**Levels:** Pharmacy-Doctoral. Schedule determined with faculty mentor.

### **PHAR 4227 - SPECIAL PROJECTS (2:0:16 F)**

**ELECTIVE COURSE.** Independent research for advanced students in administrative, behavioral, clinical, or pharmaceutical sciences. 6 week course.

**Levels:** Pharmacy-Doctoral. Schedule determined with faculty mentor.

### **PHAR 4201 - SPECIAL PROJECTS II (2:0:16 F)**

**ELECTIVE COURSE.** Second semester of independent research for advanced students in administrative, behavioral, clinical, or pharmaceutical sciences. 6 week course.

**Levels:** Pharmacy-Doctoral. Schedule determined with faculty mentor.

## **FOURTH YEAR COURSES**

**Enrollment in fourth year courses requires completion of third year curriculum. P-4 rotations may not be taken until all previous P-1 through P-3 course work is satisfactorily completed and the student has successfully passed the High Risk Drug Knowledge Assessment (HRDKA) exam.**



### **PHAR 4200 - GRAND ROUNDS (2:2:0, F/IVC)**

Grand Rounds is designed to be a culminating experience where students critically evaluate clinical literature, synthesize knowledge, and develop communication skills. As pharmacists, TTUHSC SOP graduates will be called upon to present continuing education to health care professionals. The student will develop an ACPE-quality continuing education program which fulfills the primary requirements of an ACPE provider. 16 week course in the Fourth professional year, Fall semester. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

### **PHAR 4110 - INTEGRATED CAPSTONE (1:0:1, F)**

PHAR 4110 INTEGRATED CAPSTONE (1:0:1, F)

The Integrated Capstone course is designed to be a culminating experience which synthesizes knowledge and communication skills developed through the curriculum, develops critical thinking and active learning skills, fosters lifelong learning, and prepares students for licensure examination and pharmacy practice. Students may develop and lead innovative activities designed to synthesize knowledge gained in the curriculum and which is needed for the licensure exam. 16 week course in the Fourth professional year, Spring semester. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

### **PHAR 4675 - ADULT MEDICINE ROTATION (6:0:40 F)**

**REQUIRED P4 APPE.** The Adult Medicine Clerkship is an advanced pharmacy practice experience that is required of all P4 students. This clerkship is an extension of the P3 inpatient clinical skills clerkship (PHAR 4276), allowing for more intense and advanced experience. Students will be exposed to adult inpatients with a variety of disease states during the rotation. Students will continue to refine their critical thinking skills, that they have developed during their prior rotations and coursework, and will begin to apply all of the knowledge they have gained up to this point. Students will be asked to be actively involved with following the patients, interacting with health care professionals, and in presenting/researching various disease states/drug therapy that is specific to their given rotation (see core disease states). 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

### **PHAR 4656 - AMBULATORY CARE ROTATION (6:0:40 F)**

**REQUIRED P4 APPE.** The Advanced Ambulatory Care Clerkship is designed to expose students to advanced topics within the ambulatory care practice setting. This clerkship is intended to build upon the core disease state knowledge learned in the pharmacotherapy sequence and introduce or expand upon topics either not covered or only briefly discussed by the respective pharmacotherapy course. This clerkship will focus on the assessment and outpatient management of core ambulatory care topics including (but not necessarily limited to) diabetes, hypertension, hyperlipidemia, anticoagulation, heart failure, and asthma/COPD. Students will review therapeutic management strategies, national clinical guidelines, and clinical trial data to make clinical decisions in both simple and complex patients. Members of the teaching team are experienced clinicians actively practicing in the area of ambulatory care with personal experience running outpatient clinical pharmacist services including medication therapy management. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

### **PHAR 4657 - PEDIATRIC PHARMACOTHERAPY ROTATION (6:0:40 F)**

**REQUIRED P4 APPE.** Pharmaceutical care experiences with ambulatory and inpatient pediatric patients. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year



**PHAR 4658 - GERIATRIC PHARMACOTHERAPY ROTATION (6:0:40 F)**

**REQUIRED P4 APPE.** Pharmaceutical care experiences with ambulatory and inpatient geriatric patients. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4653 - RURAL COMMUNITY ROTATION (6:0:40 F)**

**REQUIRED P4 APPE.** An advanced Rural Community Pharmacy Practice Clerkship providing students with the opportunity to participate in a diversity of activities that will build upon the skills they completed in their 3<sup>rd</sup> year introductory community rotation (PHAR 4270). In addition, student will utilize steps of the pharmacist patient care process to deliver pharmaceutical care, administer immunizations, dispense medications, counsel patients, and learn basic principles required to successfully manage a community pharmacy practice. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4654 - ADVANCED HOSPITAL/HEALTH SYSTEM ROTATION (6:0:40 F)**

**REQUIRED P4 APPE.** Pharmaceutical care experiences with institutionalized patients. 6 week course. Syllabus available

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4665 - CONSULTING PHARMACY ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Student directed activities with special patient populations. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4666 - PEDIATRIC INTENSIVE CARE ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. An advanced clerkship with a focus in pediatric critical care for the student with a special interest in pediatric pharmacotherapy. Each student will be responsible for the drug and non-drug therapy of critically ill children (under supervision of preceptor). 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4667 - DISEASE STATE/FORMULARY MANAGEMENT ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability Course will incorporate policy development, formulary management, and disease state management utilizing TDCJ healthcare facilities. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4668 - PEDIATRIC CAMP AND AMBULATORY CARE ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability Pharmaceutical care opportunities in a pediatric summer camp environment. Each student will be responsible for the care of 6-8 children under the supervision of a licensed health-care professional. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4669 - GEROPSYCHIATRY ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability A formative clerkship to develop the clinical skills related to geriatric patients with psychiatric disorders. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4670 - SPECIAL TOPICS ROTATION II (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability Advanced pharmaceutical care experiences with pediatric patients. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4671 - RESEARCH ROTATION I (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability Research experience in pharmaceutical sciences, social and administrative sciences, or pharmacy practice. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4672 - RESEARCH ROTATION II (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Research experience in pharmaceutical sciences, social and administrative sciences, or pharmacy practice. 6 week course. Syllabus available.

**PREREQ: PHAR 4671**

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4673 - ADVANCED COMMUNITY PHARMACY ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Advanced pharmaceutical care experiences with community pharmacy patients. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4674 - ADVANCED HOSPITAL PHARMACY ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Pharmaceutical care experiences with institutionalized patients. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4679 - PAIN MANAGEMENT ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Pharmaceutical care experiences with an ambulatory patient population in need of chronic pain management. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4680 - PALLIATIVE CARE ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Pharmaceutical care experiences with palliative patients. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4681 - RURAL PHARMACY PRACTICE ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Pharmaceutical care experiences with ambulatory and/or institutionalized patients in a rural community. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4682 - AMBULATORY CARE ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Pharmaceutical care experiences with ambulatory patients. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4683 - CARDIOLOGY ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Pharmaceutical care experiences with patients with cardiovascular diseases. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4684 - ADVANCED DRUG INFORMATION ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Pharmaceutical care experiences in a drug information service. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4685 - PULMONARY ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Pharmaceutical care experiences with patients having respiratory diseases. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4686 - HOME CARE ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Pharmaceutical care experiences with home care patients. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4688 - INFECTIOUS DISEASES ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Pharmaceutical care experiences with patients having infectious diseases. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4689 - NUTRITIONAL CARE ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Pharmaceutical care experiences with nutritional care patients. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4690 - ONCOLOGY ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Pharmaceutical care experiences with patients having oncological diseases. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4691 - PHARMACOKINETICS ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Pharmaceutical care experiences in pharmacokinetic dosing program. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4692 - PSYCHIATRY ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Pharmaceutical care experiences with patients having psychiatric diseases. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4693 – GLOBAL HEALTH ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Practical experiences in the

delivery of health care in international settings. **Application required**, see Experiential office for details. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4694 - NEONATOLOGY ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Pharmaceutical care experiences with neonates. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4695 - CRITICAL CARE ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Pharmaceutical care experiences with critically ill adult patients in the intensive care unit. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4696 - NUCLEAR PHARMACY ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Practical experiences in the preparation of radiopharmaceutical products and their use in medical practice. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4697 - POISON CENTER ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Pharmaceutical care experiences with patients or caregivers in the poison control center. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4698 - ADMINISTRATIVE PHARMACY PRACTICE ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Practical experiences in financial, operations, personnel, and marketing management of a pharmacy practice environment. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

**PHAR 4699 - SPECIAL TOPICS ROTATION (6:0:40 F)**

**ELECTIVE P4 APPE** - offered based upon preceptor availability. Student directed activities with special patient populations. 6 week course. Syllabus available.

**Levels:** Pharmacy-Doctoral, Fourth year

# **Faculty**

Faculty rosters for each of the School of Pharmacy Departments are linked here:

Pharmacy Practice:

<http://www.ttuhschool.edu/pharmacy/practice/> This home page features the Department Chair and Chair's message. Please interact with the "Faculty Roster" and "Staff Roster" links for alphabetized lists of faculty and staff along with job titles, training history, and other profile data.

Pharmaceutical Sciences:

<http://www.ttuhschool.edu/pharmacy/pharmaceutical-sciences/> This home page features the Department Chair and Chair's message. Please interact with the "Pharmaceutical Sciences Faculty" and "Pharmaceutical Sciences Support Staff" links for alphabetized lists of faculty and staff along with job titles, training history, and other profile data.

Immunotherapeutics and Biotechnology:

<http://www.ttuhschool.edu/pharmacy/immunotherapeutics-biotechnology/> This home page features the Department Chair and Chair's message. Please interact with the "Faculty Contacts" and "Staff Contacts" links for alphabetized lists of faculty and staff along with job titles, training history, and other profile data.