UNT Health Facilities and Other Resources

THE UNIVERSITY OF NORTH TEXAS HEALTH SCIENCE CENTER

The UNT Health Science Center is one of the nation's premier graduate academic medical centers, with six schools that specialize in patient-centered education, research and health care housed on a 33-acre campus in Fort Worth's Cultural District. The university includes the Texas College of Osteopathic Medicine, the College of Biomedical & Translational Sciences, the College of Public Health, the College of Health Professions, the UNT System College of Pharmacy, and the College of Nursing. The clinical component of UNT Health sees patients from across the region with physicians and health providers representing many medical specialties while providing training opportunities for our students. The UNT Health has as its mission to create solutions for a healthier community by being an extraordinary team, committed to excellence, and unafraid to challenge conventional wisdom.

In 2023, the UNT Health's over $300 million budget supported 1510 faculty and staff in 1.476 million square feet of state-of-the-art facilities. Total enrollment for Fall 2023 was 2,338 students. In fiscal year, 2022, total sponsored awards were $102.9 million and sponsored research expenditures totaled $47.5 million. The campus includes a 140,000 square foot Clinical Care Building, a 160,000 square foot Center for Bio-Health, and a 120,000 square foot Medical Education building. An additional 170,000 square foot Interdisciplinary Research and Education Building, which was recently completed, houses both teaching and research space.

UNT Health has a prominent and growing reputation. The College of Biomedical and Translational Sciences consistently leads all health science centers in Texas in the percentage of minority students enrolled, and our College of Public Health has a more diverse student body than any other College of Public Health in the nation. We are committed to providing Texas and the nation with the highest quality health professionals.

UNT Health offers a comprehensive medical science education on a single campus. Our student physicians, pharmacists, medical scientists, physician assistants, physical therapists, and public health experts work side by side with faculty and staff to impact the communities of Fort Worth and Texas.

Community Engagement:

- **Mobile Pediatric Unit:** serves the healthcare needs of diverse communities in Tarrant County. This mobile clinic travels to various locations within Fort Worth and Tarrant County, including schools, community centers, churches, and community organizations. Many children in these communities face significant barriers to accessing necessary healthcare, such as financial hardship, transportation issues, language barriers, and high costs. The Pediatric Mobile Clinic aims to provide high-quality healthcare to these children at no cost to their families.

  The clinic offers comprehensive medical care, including well-child exams, sports physicals, sick visits, immunizations, laboratory testing, vision and hearing screenings, dental screenings, and on-site tests for iron, lead, and hemoglobin levels.
- **HOME Clinic** a student run program offering screenings for HIV, dental, and vision services as well as distributing hygiene products, hats, and socks to the homeless population served by Presbyterian Night Shelter and the Day Resource Center.

- **CATCH 1 for Health:** educational and clinical services provided at Morningside Elementary pairs student physicians, nurses, speech pathologists, and oral hygienists to provide free comprehensive health checks with medical exams, hearing and speech evaluations and dental screenings with fluoride application in order to help reduce health disparities in children.
- **Geriatric Workforce Enhancement Program (GWEP):** The UNT Health was awarded by the Health Resources and Services Administration a Geriatrics Workforce Enhancement Program called the Workforce Enhancement in Healthy Aging and Independent Living (WE HAIL) Collaborative. The WE HAIL Collaborative is one of 42 federally funded GWEP programs nationwide advancing training for primary care, nursing home, direct care, and supportive care workforces to improve age-friendly and dementia-friendly care for older adults across the care continuum and in tribal, rural and other underserved communities in Texas. The WE HAIL Collaborative is a regional network of health professional schools and training programs, community partners, and primary care delivery systems with a shared commitment to transforming health resources and services and improving health care through workforce education and training. Additionally, a Community Advisory Council of volunteer older adults, caregivers, and advocates provide their input and feedback to ensure that training reflects the needs and preferences of targeted communities.
- **The Seniors Assisting in Geriatric Education (SAGE):** This Program is an innovative, instructional method that was implemented at the UNT Health and TCOM. The SAGE Program consists of an educational curriculum and community-based outreach experience to introduce health care students to the care of older adults in order to provide a better understanding of geriatric care through first-hand experience. Since its start in 2009, SAGE has expanded to include more than 700 students each year across eight health professions.
- **HSC Health Center for Older Adults:** The Center has been selected by the U.S. Center for Medicare and Medicaid Services as a GUIDE Model participant to increase dementia care coordination and support for caregivers. The GUIDE Model is designed to improve the quality of life for people living with dementia and those in their lives who give them support with routine tasks. The GUIDE Model pays for the coordination of services, education about dementia, and the support people living with dementia often need to remain in their homes safely.
- **Self-Management Program for Brain Health:** This program supports participants to make lifestyle changes that promotes brain health and cognitive functioning. Research suggests that people may be able to reduce the risk of developing dementia by keeping their brains healthy. Factors such as nutrition, exercise and sleep that contribute to bodily health also contribute to brain health. In addition, studies have shown that activities in which people use their brains, such as thinking, learning and socializing, as well as practices such as relaxation and mindfulness, promote brain health and therefore reduce the risk of dementia. A combination of health coaching, targeted assessment with feedback, and education is used to provide a personalized approach to addressing brain function and health, empowering participants to self-manage their participation.
- **Missing Person's Unit:** Between 2012 and the end of FY2024, CHI's Missing Person Unit tested DNA profiles for approximately 16,275 family reference samples (FRS) and more than 7,800 unidentified remains/other samples. CHI offers the rare one-stop-shop capability of being able to take samples from start to finish. From taking a buccal swab to

sending one of our forensic anthropologists to assist at a recovery site; the full spectrum of DNA testing capabilities; offering an investigative support liaison to serve as contact throughout the process; through to a final report on the completed casework.

- **Community Volunteering:** Faculty, staff, and students clock over 86,000 community service hours annually with organizations like Make a Wish, Habitat for Humanity, Tarrant Area Food Bank, and many more.

TEXAS COLLEGE OF OSTEOPATHIC MEDICINE

Texas College of Osteopathic Medicine (TCOM) is a leader in training physicians with expertise in comprehensive primary care and rural medicine. Over 60 percent of TCOM's graduates practice primary care medicine, helping reduce the shortage of physicians in our Texas communities. Many others successfully practice in specialty careers ranging from aerospace medicine to cardiovascular surgery. From the first semester, students are provided the three-pillar model of medical education which integrates basic, clinical, and health systems sciences. Students continue the clinical phase of their medical education with core rotations in Internal Medicine, Surgery, Pediatrics, Obstetrics and Gynecology, Family Medicine, Psychiatry, Osteopathic Manipulative Medicine, and Emergency Medicine. TCOM excels through its innovative medical school curriculum, interprofessional education, cutting-edge research, high quality patient care, and outstanding student performance in both the classroom and clinics. Whether they are the only doctor serving a rural community or a specialist at a major medical center, TCOM graduates distinguish themselves as clinical leaders, teachers and scholars. TCOM has four academic departments: Family and Osteopathic Manipulative Medicine, Internal Medicine and Geriatrics, Pediatrics and Women's Health, and Medical Education and Health Systems Science.

The Texas College of Osteopathic Medicine sponsors and affiliates with graduate medical education programs and multiple primary care and specialty programs with a number of hospitals and health system partners in the Dallas-Fort Worth metro area and beyond.

Research plays an important role in clinical and education practices. Between 20-25% of all TCOM students conduct an elective research project in the biomedical sciences, patient-oriented clinical studies, or health services and policy during their four years at TCOM. Providing medical students with meaningful research-based educational experiences is essential for developing exemplary physicians and informed consumers of evidence-based medicine and critically assess medical research outcomes. Conducting research projects during medical school helps build a strong academic track record, strengthens residency applications, and enhances the likelihood of successful matches for residency training. Under the direction of a faculty mentor, the research experience is often tailored around student's interests. Options include several summer programs; The Pediatric Research, The Institute for Translational Research, The Medical Student Training in aging Research, and The Osteopathic Research Center – Summer program in Clinical Research. Programs in other years include the Texas College of Osteopathic Medicine Honors Research Practicum, a one-month Research Elective, or Dual-Degree programs.

COLLEGE OF BIOMEDICAL AND TRANSLATIONAL SCIENCE

The College of Biomedical and Translational Sciences (CBTS) at the UNT Health has a strong record in training the biomedical workforce of the future. The mission of CBTS is to prepare graduates for careers as researchers, educators, and healthcare professionals through innovative training and research. Students can earn specialized master's degrees in Biotechnology, Clinical Research Management, and Medical Sciences. CBTS offers traditional research-intensive Master's and Doctoral programs in Biochemistry and Cancer Biology; Cell Biology, Immunology and Microbiology; Integrative Physiology; Genetics; Pharmaceutical Sciences and Pharmacotherapy; Pharmacology and Neuroscience; Structural Anatomy and Rehabilitation Sciences; and Visual Sciences. Graduate programs are designed with an integrated, competency-based curriculum at its core that provides students with a broad foundation of knowledge in the biomedical sciences.

Our talented and dedicated faculty mentor, teach, and train students using state-of-the-art technology and methods to address major biomedical challenges, including cancer, cardiovascular disease, infectious disease, and Alzheimer's disease. Their research is funded by NIH, NSF, DoD, and private foundations. CBTS also has several NIH-funded academic training programs that focus on the neurobiology of aging, health disparities, and cardiovascular disease.

CBTS includes three academic departments: Physiology and Anatomy; Microbiology, Immunology and Genetics; and Pharmacology and Neuroscience. Students are supported by administrative departments focused on education, admissions, student services, research and more.

- **Department of Physiology and Anatomy:** is in the neighboring Carl E. Everett Education and Administration (EAD) and Research and Education (RES) buildings at UNT Health. The department has ~1,200 square feet of laboratory research space and ~10,800 square feet of adjacent office space. Physiology and Anatomy is home to 24 fulltime faculty and is staffed by full-time administrative assistants. The department has state-of-the-art computers, printers, and a ~525 square foot meeting room with remote meeting capabilities. Faculty are recognized experts in various fields, including evolutionary anatomy, functional morphology, biomechanics, cardiovascular, renal, and neurohumoral mechanisms of health and disease. Integrative research efforts span translational studies in humans, large animal models, transgenic rodent models, electrophysiological, and cellular/molecular approaches. Major equipment available to support research efforts includes In vivo Equipment: Phillips ultrasound machines (Epiq7c and iE33) with cardiac and vascular specific probes, Prospect T1 high-frequency ultrasound system, duplex doppler ultrasound, lower body negative pressure chamber, transcranial doppler, blood pressure, blood flow, and electrocardiography acquisition systems, as well as a blood gas-co-oximeter system. Ex vivo Equipment: Microdissection surgical equipment, Living systems isolated micro vessel pressure myography systems, Olympus dissecting stereomicroscopes, multiple patch-clamp setups, Nikon Ca2+ fluorescence imaging equipment. Cellular/Molecular Equipment: Microtome, cryostat and accessories, confocal microscopy facilities, Thermocycler systems, multiple Western blot and molecular assay stations, Millipore and Thermo water purification systems.

- **Department of Microbiology, Immunology and Genetics (MIG):** is in the Center for BioHealth (CBH) building on the campus of the UNT Health. The department has ~11,000 square feet of laboratory research space and ~9,000 square feet of adjacent office space.

MIG is home to 24 full-time faculty and is staffed by two full-time administrative assistants. All laboratories and administrative offices are provided with networked computers. All laboratories have common-use computers in addition to the computers of individuals. Interactive capabilities are available for statistical analysis and graphics. Faculty are engaged in basic science and pre-clinical research. MIG faculty are recognized experts in various fields, including microbiology, microbiome research, virology, immunology, forensic and more complex human genetics, and stem cell research. Major equipment available to support research efforts includes: Microbalances, pH meters, biosafety laminar flow hoods, chemical fume hoods, temperature-controlled environ-orbital shakers, water-jacketed CO2 incubators, microcentrifuges, cryostat, Beckman highspeed vacuum centrifuge, water baths, -80oC and -20 oC freezers, upright Olympus microscopes, inverted microscopes, spectrophotometers, Biotek Synergy HTX MultiMode Microplate Reader, Biotek Cytation 10 Imaging System, Leica photomicroscope equipped with a digital camera and image analysis equipment, thermocyclers for PCR, real-time PCR systems both digital and traditional systems, vacuum centrifuges, refrigerated ultracentrifuges, cryostats, GE ImageQuant LAS 4000 digital imaging system, Western blot systems and a Jess capillary western blot equipment and Millipore and Thermo water purification systems.

- **Department of Pharmacology and Neuroscience:** is located in the Research and Education (RES) building at UNT Health, consisting of ~12,000 square feet of research lab space and ~4,000 square feet of office space for faculty/staff/students. Pharmacology and Neuroscience is home to 18 full-time faculty and is staffed by full-time administrative support. Each faculty has a state-of-the-art computer in their office, and all have access to printers, copiers, and meeting rooms (400 square feet). Faculty are engaged in basic science and translational research, with expertise in aging and Alzheimer's disease, drug discovery, glaucoma and ocular pharmacology, stroke, traumatic brain injury, Parkinson's disease, learning and memory, neurobiology of drug and alcohol misuse, neuronal degeneration and protection, neuropsychopharmacology, pharmacogenetics, and receptors and ion channels. Research efforts span translational studies in humans and behavioral assessments of rodents, including transgenic models, computational imaging (MRI/PET), and cellular/molecular approaches. Faculty are highly collaborative with a track record of studies bridging several disciplines, and some faculty have industry experience from small start-ups to larger companies. Faculty are also dedicated to training students in pharmacology and neuroscience, with success placing them in academic, pharmaceutical/biotechnology industry, and government research agencies. The department is also the host of a training grant in the Neurobiology of Aging and Alzheimer's Disease supported by NIH/NIA, an endeavor that bridges all departments to increase interdisciplinary approaches to aging and Alzheimer's disease.

COLLEGE OF PUBLIC HEALTH

Since our founding in 1999, the College of Public Health has been accredited by the Council on Education for Public Health (CEPH) and has focused on eliminating health inequities and improving the quality and conditions of life by providing critically needed public health education and research for our communities in North Texas and beyond. Under the leadership of Dr. Shafik Dharamsi, Dean of the CPH, the CPH has undertaken a transformative reorganization of departments to better serve the needs of the community we serve. The CPH has also launched a Strategic Plan, IMPACT 2030, which focuses on advancing health equity and eradicating health disparities. We are a values-driven organization with a deep commitment to high-impact educational practices and creating solutions for healthier communities.

The CPH has two departments: Population and Community Health, which houses our Master of Public Health (MPH), Master of Science (MS) and PhD programs in Public Health Sciences with two concentrations in Epidemiology and Health Behavior Research, as well as several dual degree programs and two graduate certificate programs and Health Administration and Health Policy, which houses our Master of Health Administration (MHA) program. The new academic structure of CPH was introduced in July 2023 to promote interdisciplinary team science collaboration amongst public health faculty.

- **Department of Health Administration and Health Policy:** is home to CPH's CAHME accredited MHA program and nine faculty members. Pioneering in its approach, it stands as the nation's first program to collaborate with the National Association for Healthcare Quality, seamlessly integrating a pathway to Certified Professional in Healthcare Quality (CPHQ) within its curriculum. The department's mission is to influence change and improve quality across the care continuum by expanding community and health system partnerships, fostering innovation in healthcare quality, elevating national benchmarks in health administration education, and engaging in research and practice supporting policy processes designed to improve health care quality and access for diverse populations.
- **Department of Population and Community Health:** houses the CPH's CEPH accredited MPH and MS/PhD programs. The Department of Population and Community Health is home to approximately 22 faculty members trained in public health-related disciplines, such as public health, psychology, sociology, anthropology, social work, epidemiology, biostatistics, and data science. The department faculty are known for helping people change and make better health decisions – alcohol, tobacco, and other drug use (ATOD) and ATOD-related problems – and receive better care for mental health conditions. The department faculty engage in community-based, partner-engaged Implementation Science projects to improve the uptake of vaccination, prevent sexually transmitted infectious diseases, reduce cancer and diabetes risks, and improve the quality of life for aging populations for the underserved in the rural or economically disadvantaged communities and in the developing countries. Our faculty have also worked with marginalized and stigmatized populations with limited access to healthcare services, such as adults experiencing homelessness or those with addiction problems. The department includes faculty members with expertise in study design, advanced statistical models, emerging data science (statistical machine learning and artificial intelligence) algorithms, and causal inference, especially for high dimensional, longitudinal clinical data from mobile health (mHealth) clinical trials, translational neuroscience studies, national surveys with complex sampling, and health disparities projects. All faculty members in the department are actively involved in external and internal grants and contracts for their research and scholarship activities. Furthermore, many of our faculty have been featured or opined in local and national news outlets in response to emerging public health concerns. In sum, the department is dedicated to transforming lives by integrating community-driven initiatives and fostering partnerships to advance health equity. Through these initiatives, we aim to provide meaningful solutions that contribute to positive health outcomes on a local and global scale.

The CPH has two internal units that assist with securing and managing research projects and translating research findings into practice.
The Office of Research Services (ORS) coordinates with the UNT Health Office of Sponsored Programs to meet CPH faculty's pre-award and Post-Award needs. Pre-award services facilitate grant proposals and contract submissions. Post-Award services include award monitoring guidance, including review of project expenditures and effort certification, to recipients of grants and contracts.

The Biostatistics and Epidemiology Consulting and Collaboration Services (BECCS) provides statistical consulting services and training to researchers and practitioners through a collaboration with CPH faculty, staff, and graduate students, as well as those at UNT Health and community partners. Services include support for study design, statistical planning, data management, statistical analysis, statistical reporting, and training sessions/courses in biostatistics and epidemiology. The goal is to facilitate the University's research and educational mission through a fruitful partnership with colleagues within and outside UNT Health.

CPH Student Outcomes: The CPH is dedicated to equipping students with a profound understanding of research that advances our knowledge of the origins of public health threats. We emphasize evaluating interventions and policies aimed at preventing diseases and fostering overall health. Our PhD program provides comprehensive support, including a generous stipend of $32,000 per year, covering tuition, fees, benefits, and travel for 4-5 years to facilitate the completion of their training. Graduates from our programs have excelled in diverse fields, securing positions in healthcare, business, human services, research, and academia. A remarkable 94% of CPH graduates find employment or enroll in further education within two years of completing their degree, with 83% contributing to the workforce in Texas.

Of note, 100% of recent MS/PhD cohorts have successfully secured postdoctoral positions at research-intensive universities, entered the artificial intelligence industry, or joined health departments. In FY 2022, 37% of the College of Public Health students had lived experiences and backgrounds that were underrepresented.

Our commitment to excellence is reflected in our recognition by Intelligent.com, which ranked the UNT Health College of Public Health 24th among the Best Online Master's in Public Health Programs in 2023. In addition, EduMed, a leader in supporting students' pursuits of an online or hybrid education in the health professions, nursing, and medical fields, named the online MHA program offered by the UNT Health CPH as one of the best in Texas and the most affordable programs in the nation in 2023 and 2024. The acknowledgments underscore our dedication to providing a high-quality and impactful education in public health.

COLLEGE OF HEALTH PROFESSIONS

The College of Health Professions (CHoP) delivers the knowledge, attitudes and skills necessary to serve in the health care professions as well as offering current health care professionals the opportunity to further their career development. Careers as either a physician assistant (PA), physical therapist (PT), or health and wellness coach are among the most rewarding and needed of all the health care professions. Classes in both PT and PA programs include inter-professional experiences designed to prepare students to be contributing members of the healthcare team.

In addition, the Department of Lifestyle Health Sciences offers a master's degree program designed build competencies in evidence-based lifestyle medicine, health literacy and communication, and coaching psychology that can be used in clinical, community or corporate practice.

- **Department of Physician Assistant Studies:** creates solutions for a healthier community by preparing graduates with the knowledge and skills needed for physician assistant practice, emphasizing primary care medicine and meeting the healthcare needs of underserved populations. The program is approximately 30 months in length, and upon successful completion, graduates receive a Master of Physician Assistant Studies (MPAS) degree from the UNT Health. The curriculum is divided into pre-clinical and clinical phases. The preclinical phase consists mostly of classroom studies, however introductions to clinical experiences, medical interviewing, physical examination and critical thinking occurs from the very first semester. The clinical phase involves sending PA students to clinics and hospitals located throughout Fort Worth, Texas. In these hands-on environments, faculty and adjunct faculty work with students to develop clinical skills under close supervision.

- **Department of Physical Therapy:** offers a well-rounded education in all aspects of contemporary physical therapy. The 33-month program prepares students to practice as a Doctor of Physical Therapy (DPT), one of today's fastest growing and most rewarding health professions. The mission of the Department of Physical Therapy is to create solutions for a healthier community by producing highly qualified entry-level DPTs, and leading in education, professional services, and research activities. The curriculum is delivered by a dedicated and diverse faculty, many of whom are board certified clinical specialists and are leaders in the profession. Contemporary clinical and didactic information is provided through engaging and innovative teaching methods. Simulation experiences are embedded in the program to prepare students to enter clinical experiences. Students have access to clinical placements across the nation, including international clinical experiences. Immersed in an interprofessional environment, students learn from and work with health care professionals and students from programs across campus. The department is committed to preparing physical therapists who can examine and treat movement dysfunction across the lifespan and who are well-rounded, compassionate, and ethical clinicians.

- **Department of Personalized Health and Well-Being:** offers a one year, 36 credit hour, online Master of Science (M.S.) degree in Lifestyle Health Sciences & Coaching. This innovative M.S. degree program is designed to provide students with the knowledge, skills, and tools needed to become a credentialed health and wellness coach with a specialization in lifestyle medicine. Coaching is an interprofessional discipline that draws from psychology, nutrition and exercise science, as well as communication, emotional intelligence, health literacy, and leadership. The curriculum prepares students to work in a variety of clinical or non-clinical settings and offer the educational experiences needed to fulfill International Consortium of Health & Wellness Coaches (ICHWC) requirements for exam certification. The M.S. degree covers foundational competencies that will complement other UNT Health health professions programs as well as graduate highly trained individuals for clinical, community, or corporate careers in the rewarding and growing field of health and wellness coaching.

UNT Health COLLEGE OF PHARMACY

The UNT System College of Pharmacy (SCP) graduated its first class in 2017. The SCP educates students to become highly competent pharmacy professionals for the provision of pharmacist-delivered patient care, including comprehensive medication therapy management services, the advancement of the practice of pharmacy and its contributions to society. This school strives to produce pharmacy professionals who fully understand the contributions to health care of other health professionals, who embrace and can function in a team approach to health care, and who can serve as effective partners in providing primary care services to improve the health and wellbeing of their patients. The SCP also conducts and disseminates research that improves the maintenance of health and delivery of healthcare in Texas and beyond. Degrees offered include Doctor of Pharmacy (PharmD), Graduate programs in Pharmaceutical Sciences and Pharmacotherapy (MS/PhD), Drug Discovery and Development (MS), and Applied Outcomes Research (MS), Dual degrees such as PharmD/PhD, PharmD/MS, PharmD/MPH, and PharmD/MBA, Pharmacy Residency Programs, a Pharmacy Resident Teaching Certificate Program, and Certificate Programs in Drug Discovery and Development, Applied Health Outcomes Research, and Pharmacometrics. With a focus on improving access for patients, students are trained in a team environment with a variety of health care professionals. Through disease and medication management, safety will be increased improving outcomes and reducing costs. The faculty, postdoctoral associates, graduate students, and research staff discover new drug targets, develop and study novel compounds for their potential use as transformative therapeutics, and design new formulations and drug delivery systems for the promotion of health and the enhancement of disease treatment. The SCP has two departments, a service center, and a pharmaceutical analysis core laboratory.

- **Department of Pharmaceutical Sciences:** which consists of faculty engaged in basic science and translational research, has expertise in a variety of disciplines that span preclinical drug discovery and development research. Pharmaceutical Sciences faculty are utilizing both in vitro and in vivo models of disease to identify, study, and validate new drug targets in areas such as age-related macular degeneration, cancer, corneal trauma, diabetes, glaucoma, infectious disease, neurodegenerative disorders, stroke, and more. Faculty engaged in the discovery and optimization of small molecule probes and drug leads utilize techniques such as computer-aided drug design including artificial intelligence approaches and iterative medicinal chemistry with technology-enabled synthesis. Faculty engaged in formulation research leverage their expertise in nanoparticle formulation approaches to tackle projects designed to enhance bioavailability, selectively target tissues, and control the release of a variety of large and small molecule therapeutics. Pharmaceutical Sciences faculty are highly collaborative and have a strong track record of working on interdisciplinary projects. Several faculties have industry experience, including small biotechnology as well as large pharmaceutical companies.

- **Department of Pharmacotherapy:** consists of clinical practice faculty, clinical research faculty and outcomes research focuses on a broad range of research endeavors. The research conducted by department faculty include adherence intervention trials involving patients with HIV, outcomes studies in health disparities leveraging artificial intelligence and machine learning, large database and pharmacoeconomic analyses, pharmacometrics studies as well as social behavioral research concerning prescription opioids and the student learning and teaching practices in higher education. The department has an active scholarship collaboration with clinicians at HSC Health and other health system partners in the Dallas-Fort Worth Metroplex offering research related to clinical outcomes, cost avoidance and analysis, practice advancement, interprofessional education and practice and implementation science.

- **Preclinical Services (PCS):** a service center that collaborates with academic and pharmaceutical scientists from around the world to evaluate and develop new therapies against infectious and other diseases. PCS specializes in in vivo efficacy models of infection, PK/PD analysis, bioanalytical assays, basic toxicology, and in vitro studies. There are also oncology and other in vivo models available or under development to support similar studies in noninfectious diseases. Synthetic and medicinal chemistry services as well as pharmaceutics and drug characterization services are likewise offered through PCS.

The Pharmaceutical Analysis Core Lab engages in the analysis of small molecules, including nanoparticles, to support the early drug discovery and development endeavors of UNT Health faculty and others through collaboration as well as fee-for-service. It is managed by College of Pharmacy personnel, and staffed by a full-time Research Associate with extensive expertise in mass spectrometry. Capabilities and instrumentation exist to aid in identification and characterization of small molecules (time-of-flight mass spectrometry and nuclear magnetic resonance spectroscopy), pharmacokinetic and pharmacodynamic studies (tandem mass spectrometry), Fourier-transform infrared spectroscopy, differential scanning calorimetry, thermogravimetric analysis, x-ray powder diffraction analysis, lyophilization of aqueous solutions, binding kinetics and affinity studies using surface plasmon resonance, dissolution testing of drug formulations, in vitro membrane permeation studies, bioluminescence, fluorescence and colorimetric microplate assays, UV, Vis and NIR gel/blot detection and imaging as well as in-cell and on-cell NIR Western assays, nanoparticle generation and characterization, brightfield and fluorescence microscopy, and mammalian cell culture.

UNT Health COLLEGE OF NURSING

In 2023, the University of North Texas System Board of Regents approved the establishment of the UNT Health College of Nursing to address Texas' growing nursing shortage. This approval included launching the college’s inaugural degree programs: Associate Degree in Nursing to Bachelor of Science in Nursing (ADN to BSN), Bachelor of Science in Nursing (Pre-Licensure), Master of Science in Nursing (MSN) in Nursing Practice Innovation, and Master of Science in Nursing (MSN) – Psychiatric Mental Health Nurse Practitioner (PMHNP). These programs are scheduled to launch sequentially in Fall 2024, Spring 2025, and Fall 2025. Before enrolling students, the College secured approvals from the Texas Higher Education Coordinating Board, the Southern Association of Colleges and Schools Commission on Colleges, and the Texas Board of Nursing. It is also in the process of obtaining accreditation from the Commission on Collegiate Nursing Education. The first pre-licensure cohort is expected to take the NCLEX board exam by Fall 2026. With its innovative competency-based curriculum and comprehensive training, the College is well-positioned to meet the Texas Board of Nursing's passing standards and aims for full accreditation by Spring 2027.

Associate Degree in Nursing to Bachelor of Science in Nursing (AND to BSN) Degree Program: The RN-BSN program provides a structured pathway for registered nurses with an associate degree to earn a Bachelor of Science in Nursing. This program fosters the development of marketable skills, supports career advancement, and offers a seamless transition into graduate nursing programs. The ultimate goal is to improve patient and community health by preparing a proficient and skilled nursing workforce to deliver high-quality care. Spanning two semesters, the RN-BSN curriculum consists of 30 credit hours. Its sequential course design allows for enrollment in any semester without prerequisites. Flexible part-time degree plans are available to accommodate diverse schedules. The program is delivered through a distance education model, ensuring accessibility for all participants.

Master of Science in Nursing (MSN) in Nursing Practice Innovation: This degree program consists of 16-week semesters and condensed 10-week summer semesters. The foundational master's-level nursing core courses emphasize theory, research, assessment, and pharmacology. The curriculum includes seven core courses, two specialty courses, and four specialized concentration courses, ensuring continuity in graduate-level content and concepts. A distinctive feature of this program is the inclusion of 8-week concentration courses, allowing students to efficiently complete coursework aligned with certifications. In the full-time model, students can complete the degree in five semesters, including one summer. A part-time option extends the program to seven semesters. Learners will have the flexibility to pursue graduate certificates in their chosen area of specialization.

Bachelor of Science in Nursing (Pre-Licensure): The BSN Pre-Licensure program prepares future nurses with the critical thinking, clinical skills, and competencies needed to deliver high quality, patient-centered care. This rigorous five-semester competency-based program integrates evidence-based practice, interprofessional collaboration, and cutting-edge healthcare technologies to equip graduates for success in diverse healthcare settings. With a strong emphasis on addressing health disparities, community care, and workforce readiness, this program aligns with the College's mission to improve community health outcomes and expand access to quality nursing education.

Master of Science in Nursing (MSN) – Psychiatric Mental Health Nurse Practitioner (PMHNP): In response to the increasing demand for mental health services, the MSN-PMHNP program prepares advanced practice nurses to provide comprehensive psychiatric care across diverse populations and settings. This program builds upon the College's commitment to addressing health disparities by bridging access gaps and integrating culturally competent training with evidence-based mental health assessment, diagnosis, and treatment. Graduates will be prepared to work in outpatient clinics, inpatient settings, and community-based mental health programs, helping to alleviate critical workforce shortages and expand access to psychiatric care. The program structure includes foundational master's coursework, specialized PMHNP training, and clinical practicums to ensure proficiency in managing psychiatric conditions across the lifespan.

The Office of Research and Scholarship: Established in 2023 alongside its academic programs, the Office of Research and Scholarship ensures the integration of research and evidence-based practice into the curriculum. It promotes a culture of research excellence within the college, positioning it to compete for and secure extramural grants and funding while supporting faculty and student research activities. The office leads efforts to build the college's research and scholarship infrastructure, attract high-impact researchers, and strengthen the academic environment to support funded research and programmatic activities. This vision aligns with the college's long-term goal of launching a doctoral degree program in the future.

The Office of Student Success: is dedicated to supporting student achievement through tailored academic resources, mentorship, and professional development initiatives. It provides comprehensive student support services, including tutoring, academic coaching, and skill building workshops, to enhance learning outcomes and promote retention. The office collaborates with faculty to implement evidence-based teaching strategies and ensures students are well-prepared for licensure and certification exams. By fostering a culture of academic excellence, the Office of Student Success plays a pivotal role in advancing the College's mission to develop a competent and diverse nursing workforce.

North Texas Sexual Assault Nurse Education Consortium (NTXASC): Since its inception in 2023, the College of Nursing has secured $1.5 million in federal workforce training grants – an outstanding achievement for a newly established college. The NTXASC was developed by the College of Nursing in collaboration with partner organizations across North Texas. Its core mission is to provide culturally competent training for sexual assault nurse examiners, equipping them to meet the diverse needs of the North Texas population.

Looking ahead, the College of Nursing plans to extend its BSN program to the UNT Frisco and Dallas campuses. Additionally, launching nursing doctoral programs. These initiatives reflect the College's commitment to expanding comprehensive nursing education and meeting the evolving needs of students and the healthcare community.

HEALTH INSTITUTES AND CENTERS

Institutes and centers are an integral part of the UNT Health research infrastructure.

Institute for Translational Research (ITR): was established in 2018, with the goal of giving patients access to therapeutics and diagnostics faster than ever before. The ITR functions to translate basic science into treatments and new procedures for Alzheimer's and other neurodegenerative diseases. The ITR consists of a Biomarker Core, Clinical Core, Basic Science Core, Genetics Core, Clinical Research Center and Imaging Center. The ITR Biomarker core is made up of approximately 10,000 square feet and serves as the biorepository and conducts targeted proteomic studies. The ITR Biomarker Core includes multiple NIH-funded grants focused on Alzheimer's disease (AD) and Alzheimer's disease-related dementias (ADRDs). The Biomarker Core currently contains over 300,000 blood aliquots stored from cases and controls, and the lab has assayed over 29,000 serum and plasma samples on their current equipment in the last 24-months. The ITR Clinical Core is made up of nearly 20,000 square feet of newly renovated clinical research space. The research activities of the Clinical Core have recruited over 8,000 adults and elders from underserved communities into community-based research and clinical projects over the last 5 years and their outreach efforts have reached over

50,000 people in the Dallas-Fort Worth region annually. The ITR Clinical Research Center will serve as a resource to UNT Health (and external) investigators to facilitate clinical research leveraging ITR resources that are not ITR-specific projects. The ITR Imaging Center is a newly established state-of-the-art research-dedicated imaging center. The ITR has ongoing research projects with numerous collaborators across the U.S. and globally. The ITR has ongoing funded collaborations with multiple top-tier academic institutions. All aspects and functions of the ITR serve to foster translational research in neurodegenerative diseases at UNT Health and to create solutions for a healthier community.

North Texas Eye Research Institute (NTERI): NTERI is changing the world with new discoveries through basic and clinical eye research. Since 1992, our researchers and clinicians in the field of visual science and ophthalmology have been driven to increase awareness about disease development and the need for novel therapies, especially among ethnic and minority populations who have or will develop debilitating vision disorders and related health disparities. NTERI's mission is to comprehensively advance research, education, and clinical care aimed at understanding the visual system, as well as preventing, treating, and finding cures for eye disorders. NTERI is firmly committed to assuming a leadership role in the scientific community and is dedicated to addressing and eliminating healthcare disparities based on race and ethnicity. Furthermore, our institute prioritizes the development of impactful interventions to combat eye diseases and disorders.

- **Facilities:** NTERI occupies over 20,000 square feet on the 5th floor of the IREB building, providing dedicated laboratory and office space for researchers, staff, students, and trainees. All NTERI members have access to workstations with licensed software like Amira and Zen Black for image analysis of Zeiss-generated images. A workstation with StereoInvestigator (MicroBrightfield) is available for unbiased stereological tissue analysis. Each available microscope has an integrated computer and software for image acquisition, analysis, and storage. There is also access to the Illumina BaseSpace Sequence Hub, facilitating data management and analysis from the Illumina NextSeq 550 Sequencer, powered by Amazon Web Services. Additionally, NTERI has access to the UNT High-Performance Computing (HPC) system.

- **Animal Research:** NTERI provides well-equipped facilities for in vivo mouse studies, ex vivo human eye studies, and in vitro research. Capabilities include behavioral testing (optometer response), functional assessment (electroretinogram), structural imaging (OCT, Micron IV, slit lamp), intraocular pressure (IOP) measurement (tonometer), and therapeutic injections (peritoneal, intraocular). Ocular injection procedures are performed in HEPA-filtered clean hoods. Study monitoring includes IOP, slit lamp evaluation, pattern electroretinography (PERG), visual evoked potential (VEP), OCT, and Micron IV. All animal research is conducted under approved IACUC protocols. Mice are housed in the UNT Health vivarium, with live imaging equipment located adjacent to housing rooms. The UNT Health animal facility is USDA registered and AAALAC accredited, accommodating various species, including rodents, canines, swine, and small ruminants. Access is restricted to authorized personnel with approved protocols and training. The 8,500square-foot facility includes biohazard containment suites, quarantine and isolation rooms, surgical and procedure rooms, lab and storage areas, a radiology room, and an animal receiving room. NTERI has 4 dedicated mouse housing rooms and 3 mouse procedure rooms.

Center for Human Identification (CHI): is an accredited forensic laboratory which is globally recognized as a leader in forensic genomics. CHI is housed in the Center for Bio Health building on the Fort Worth campus and is comprised of casework laboratory facilities as well as a dedicated research and development laboratory. CHI is the only university that has been granted access to the FBI's CODIS database and was the first public laboratory in the country to be accredited for its Forensic Genetic Genealogy testing program.

CHI's forensic DNA laboratories include the Forensic Casework Unit, Missing Persons Unit, and Forensic Genetic Genealogy Unit. With funding support from the State of Texas and various Federal government agencies, CHI provides forensic services to the State of Texas at no cost. To date, CHI also has been instrumental in decreasing sexual assault and criminal casework backlogs within Texas and has the esteemed honor of processing the majority of missing person samples for the United States that reside within CODIS. CHI's forensic DNA testing efforts are also supported by CHI's Investigative Support Unit, which provides genetic genealogy services and CHI's Anthropology Unit, which provides anthropological examinations of skeletal remains to determine biological sex, ancestry, age, stature, and identifies possible signs of trauma. CHI staff are recognized subject matter experts that often are called upon to assist with various investigative needs such as casework interpretation, testimony support, and development of software and databases to assist investigators both nationwide and around the world.

CHI also is committed to the training of students and professionals in various aspects of forensic genetics, and maintaining an active, innovative research program to improve forensic identification capabilities and develop novel approaches in genomics, molecular biology, and bioinformatics. The Research and Development Unit (RDU) of CHI operates out of a dedicated, 2500 square foot research laboratory. The RDU is well equipped for both traditional forensic genetics applications (qPCR and CE) as well as more advanced technologies under development (digital PCR and massively parallel sequencing). In addition to wet-lab capabilities, CHI faculty manage CHI's supercomputing cluster composed of ~1000 CPU cores and 8 A100 GPGPUs (providing 8 × 6,912 CUDA cores) and a petabyte of flash storage as well as a petabyte of off-site backup. Since 2009, RDU faculty have published more than 350 scientific manuscripts in the areas of human identification, metagenomics, molecular biology, bioinformatics, molecular autopsy, and massively parallel sequencing.

Institute for Health Disparities (IHD): In comparison to the general population of Texas, racial and ethnic minorities suffer from heightened risk factors and poorer overall health and access to health care. The mission of the TCHD is to prevent, reduce and eliminate health disparities in our communities. Historically, academic institutions have conducted research in communities but not necessarily *with* communities at risk for disease. By working with key community members, prevention research can be translated into actions that will drive improvement in areas such as diabetes, cardiovascular diseases, cancer, stroke and HIV. TCHD is committed to increasing the underrepresented minority student and faculty population and offer an innovative fellowship program that fosters collaborative research among junior research faculty and community leaders and stakeholders. By leveraging UNT Health's community partnerships, it works to improve prevention and outreach efforts affecting women in underserved and lowincome communities in North Texas. Current efforts are focused on obesity and cancer. Established in 2005, the Texas Center for Health Disparities is designated as a Center of Excellence by the NIH.

Center for Anatomical Science (CAS): The CAS maintains 8,000 square feet of state-of-the art human anatomy laboratories that support anatomical education, research, and outreach. The CAS graduate programs (M.S. and Ph.D.) provide opportunities for graduate students to pursue research in structural anatomy and biomechanics as applied to biological anthropology, evolutionary biology, forensics, and rehabilitation/orthopedic sciences. The CAS is a leading provider of educational outreach programs for students and teachers in Fort Worth ISD and the surrounding Tarrant County area.

Texas Center for Patient Safety: is committed to creating a new culture of safety in health care for Texas by challenging traditional thinking to eliminate preventable harm, Texas Center for Patient Safety is focused on reducing medical errors and assuring Texans receive the highest quality of health care through extensive education, community outreach initiatives and quality improvement programs.

Center for Health Policy (CHP): demonstrates the commitment of the UNT Health to create solutions for healthier communities by influencing health policy locally, nationally and globally. The Center is directed by HSC Vice President for Health Policy Waridibo Allison MD, PhD, FACP, CPE, FIDSA. The CHP has three pillars: Research, Education and Community. These pillars are underpinned by health solutions, the translation of research into policy and the practical and effective implementation of policies related to health. The Center focuses particularly but not exclusively on three broad areas: Telementoring & Workforce Development, Rural Health and Whole Health. CHP projects and programs leverage a wide range of approaches to research, education, policy, advocacy, community engagement, partnership and outreach.

- **National Rural Telementoring Training Center:** Within the Center for Health Policy is the National Rural Telementoring Training Center (RTTC). Funded by the Health Resources and Services Administration (HRSA), the RTTC provides tailored training and technical assistance to academic medical organizations, centers of excellence and community organizations to implement new or improve existing telementoring models that support the rural health care workforce. The RTTC has additionally developed evidence based telementoring quality measures and collects data on these measures on a national scale.

CORE LABS & INFRASTRUCTURE: The UNT Health houses core facilities covering Microscopy, Histology, Flow Cytometry, Preclinical Imaging, Genomics and Bioinformatics. Each core is managed by knowledgeable staff capable of training and guiding users along their research journey. In addition, the Discovery Centers provide the campus community and companies participating in the UNT Health Acceleration Lab Technology Commercialization Programs, access to laboratory spaces with biomedical laboratory equipment to accommodate a wide range of research needs.

- **Microscopy Core:** provides advanced instrumentation and services to meet the light microscopy imaging and image analysis need of researchers. The Core offers imaging services, equipment training and consultation on all aspects of light microscopy imaging and image analysis needs. Researchers have access to two Zeiss LSM 880 confocal microscope systems, one having super resolution capability with inverted configuration and other outfitted with 2-Photon imaging capability with upright configuration. Core also provides researcher with Zeiss Axioscan 7, a high throughput slide-scanning microscope and a Keyence BZ-X800 fluorescence microscope with a fully motorized control system for fluorescent and brightfield imaging. Microscopy core provides high-performance computer with software like Huygens, Zen, and ImageJ/FIJI, Napari, and Cell profiler for image processing and analysis of image data produced with our equipment.

- **Flow Cytometry Core**: provides advanced instrumentation as well as expertise in multidimensional flow cytometric analysis and cell sorting. Instruments include: *Cytek Aurora (benchtop cytometer), Amnis Imagestream Imaging Flow Cytometer, BD LSRII Flow Cytometer and Sony SH800 Cell Sorter*.
- **Genomics Core:** provides access to high throughput sequencing technologies that deliver a sequencing capacity of up to 120 gigabases using its own Illumina NextSeq 550 instrument and 7.5 terabases using a NovaSeq X instrument through a core facility alliance. The facility includes Eppendorf epMotion systems for automation of routine sequencing experiments, Chromium X system for single cell analysis, Visium CytAssist system for spatial sequencing, Agilent TapeStation 4200 and QuantStudio Absolute Q Digital PCR System for nucleic acid analyses. Several other instruments dedicated to quality control ensure accurate, high-quality results to core users.
- **High-Performance Computing Core (HPC):** delivers extensive computational support for a variety of research applications, including data analytics, bioinformatics, statistical support, and AI-driven research development. The HPC Core delivers high-throughput computing resources to support a wide array of biomedical research across multiple disciplines. It enables complex analyses, including genomic, transcriptomic, proteomic, and metabolomic studies, as well as structural biology, drug discovery, and systems biology. Applications range from whole genome sequencing and single-cell transcriptomics to molecular modeling, molecular docking, and artificial intelligence driven research. Additionally, the Core supports clinical and translational research by facilitating clinical trial data processing, Bayesian modeling, adaptive trial designs, survival analysis, and other advanced computational methodologies, fostering innovation across the entire spectrum of biomedical science. The HPC setup consists of compute nodes featuring a multi-node architecture with AMD EPYC 9754 processors, each equipped with 256+ CPU cores, supporting parallel processing for computationally intensive workflows. The GPU acceleration will utilize NVIDIA H100 Tensor Core GPUs, optimized for deep learning, molecular simulations, and AI-driven analytics. The HPC Core also includes cold storage with a 1PB infrastructure, designed for long-term archival and management of large datasets. With state-of-the-art computational resources, cloud integration options, and scalable infrastructure, the HPC Core is committed to enabling data-driven discoveries across diverse scientific disciplines.
- **Preclinical Imaging Core (PIC):** is a fee-for-service shared resource that provides equipment, resources, and services for pre-clinical research. The facility provides advanced imaging systems ranging from optical to tomographic technologies, including IVIS, CT, MRI, PET/CT, PET/MRI, SPECT/CT and SPECT/MRI, enabling researchers to image live animals, organs/tissues, cells, or in vitro samples at molecular level for basic and translational research. The Core is also equipped with essential supporting facilities,

such as a "hot room" for processing radioisotopes, an "animal room" for housing animals, and a "procedure room" for conducting surgeries or other invasive procedures. Additionally, the core offers consultation and guidance on experimental design, as well as assistance with any research-related questions or concerns.

- **Discovery Centers (DCs):** provide access to wet lab bench space and a unique inventory of general biomedical laboratory equipment to accommodate a wide range of research needs. Users can access two laboratory spaces which accommodate BSL-2 and Bloodborne pathogen related experimentation. Basic equipment training and personal protective equipment is provided and scheduling use of space and equipment is accomplished using a user-friendly website. We like to consider these, life science maker spaces and make these available to the campus community as well as small startup companies participating in the UNT Health's Next Innovation Labs. Major equipment available include: Biosafety cabinets, Fume Hoods, Liquid-nitrogen and -80°C storage capabilities, Centrifuges, Incubators, Multi-mode plate readers, Autoclaves, Electrophoresis systems, Fluorescence microscopes
- **Next Innovation Labs:** is a commercialization initiative that provides a wide range of support services for emerging companies working to bring new life science technologies to market. These include, but are not limited to: access to dedicated wet labs, access to shared lab spaces with general life science equipment (the Discovery Centers), office space, meeting space and discounted access to research core resources on campus. Companies in our Next Innovation Labs program also enjoy access to HSC compliance review committees.

LABORATORY ANIMAL MEDICINE:

UNT Health's Department of Laboratory Animal Medicine (**DLAM**) provides professional and technical service for Laboratory Animal Care, Veterinary Medical services, and Animal Research Project support for faculty, students, and employees of UNT Health. Their staff is trained in the care and use of laboratory animals and plays an important role in research on campus. All DLAM staff working with animals are AALAS (American Association for Laboratory Science) certified. Further, DLAM and the Institutional Animal Care and Use Committee (IACUC) are strong collaborative partners in animal research, and routinely receive high marks from the main accrediting body for animal research: The Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC).

UNT Health Research and Resources

The UNT Health Science Center is providing a healthier future for a changing world with new discoveries through research. Our internationally-known faculty researchers are exploring new approaches to the treatment of disease, including Aging and Alzheimer's Disease, Primary Care and Prevention and Investigative Genetics. Externally Sponsored Awards have grown 64% in five years from $32.8 million in 2013 to over $54 million in 2018. The UNT Health is committed to excellence and success in biomedical research.

The Division of Academic Innovation

The Division of Academic Innovation (DAI) offers a wide variety of services to assist in creating excellent teaching and learning at UNT Health by helping educators interact with each other and through innovative teaching and learning to inspire student success. The DAI mission to advance transformative educational experiences. The main areas of focus are:

- **Canvas, UNT Health's Learning Management System (LMS):** DAI oversees the implementation, maintenance, and optimization of our academic learning management system Canvas, ensuring a seamless, user-friendly experience for both educators and students. This team provides technical support, training, and guidance to help faculty maximize Canvas's capabilities for course delivery. Whether troubleshooting issues, optimizing course design, or helping students navigate the LMS, DAI ensures a smooth learning experience for the entire UNT Health community.
- **Instructional Design & Instructional Technology:** DAI's instructional designers and instructional technology specialists collaborate with faculty and other subject matter experts to develop meaningful, engaging, and effective learning experiences across a variety of formats. We use evidence-based course design principles, interactive learning strategies, and educational technology to create high-impact, student-centered instruction that supports all learners.
    - DAI serves as thought partners, design consultants, and project managers for both academic credit courses and community-facing learning experiences, guiding faculty and subject matter experts through the entire course development process. This team supports the design and delivery of:
        - **For-Credit Courses:** Online, hybrid, and face-to-face courses that align with accreditation standards, institutional goals, and best practices in teaching and learning.
        - **Community-Facing Learning Experiences:** Short courses, accredited continuing education programs, and micro credentials that extend learning beyond the traditional classroom and into professional and public health settings.
    - DAI supports the university in staying at the forefront of emerging trends in instructional design, educational technology, and healthcare education by continuously engaging in professional development, research, and the scholarship of teaching and learning (SoTL). This team actively contributes to the field through presentations, publications, and collaborations, ensuring that work is informed by the latest advancements in pedagogy, learning science, and instructional innovation. DAI also explores and integrates cutting-edge innovations, including the use of AI in healthcare education, to ensure that HSC course design is forward thinking, adaptable, and effective for both educators and learners.
- **Faculty Professional Development:** DAI offers workshops, training, and events on a wide range of teaching and learning topics, including course design, educational technology integration, strategies for engaging all learners, and andragogical innovation. These faculty development initiatives provide opportunities for educators to explore new approaches, refine their teaching practices, and engage with a community of scholars committed to student success. Among key programs, the Academy of Health Science Educators serves as a faculty learning community dedicated to advancing teaching excellence in health education. The Canvas Clinic, a 13-workshop series, covers best practices for course design, grading, accessibility, and advanced Canvas features. We also offer on-demand workshops and training, providing flexible, tailored professional development opportunities to meet faculty needs. Additionally, these online faculty development programs include self-paced and facilitated courses such as Introduction to

Teaching with Canvas (Part 1 & Part 2) and Preparing to Teach Online, ensuring that educators have the tools and support to enhance their teaching in any modality.

- **Educational Media & One University Studio:** The Educational Media Team, a cornerstone of the Division of Academic Innovation at UNT Health, is a powerhouse of creativity, expertise, and technological prowess, driving the evolution of modern learning experiences. We craft high-quality educational media that captivates and engages learners through video production, graphic design, gamification, and interactive media. This team's strength lies in seamlessly merging cutting-edge design with subject matter expertise to ensure every piece of content is both educationally effective and visually compelling. Whether producing training videos that clarify complex medical concepts, developing interactive modules that transform passive learning into active engagement, or incorporating game-based elements to enhance retention, this team pushes the boundaries of educational innovation. By fostering collaboration between media specialists and content experts, this team creates dynamic, immersive, and accessible learning environments that enhance understanding, engagement, and long-term retention, shaping the future of education. The team manages One University Studio, a complete video production studio with professional quality cameras, lights, audio, and other equipment to support the educational video production needs of the campus. One University Studio additionally includes three DIY spaces outside of the main studio for quick media production needs.
- **Accredited Continuing Education:** The DAI Continuing Education & Assessment leads the university's efforts to develop, host, and support accredited continuing education for the interprofessional healthcare team. Holding Joint Accreditation through ACCME, the team provides program planning & management support, accreditation support, hosting, and delivery of programs that reach approximately 35,000 learners per year. This team was recently recognized by the National Academy of Medicine as an exemplar for the rest of the nation on the basis of a continuing education program series addressing substance and opioid use.
- **Marketing and Communications:** DAI provides support to create awareness and drive interest and engagement in community-facing programs by collaborating with the partner's marketing team, relevant HSC Academic Communicators from the colleges and/or support divisions, and HSC's Marketing & Communications team. Depending on scope and budget, DAI collaborates on everything from strategic marketing planning, writing, production, media relations, advertising, direct marketing, social media, event planning, and tracking of analytics to assess and measure effectiveness.

The Division of Research and Innovation

The mission of the UNT Health Division of Research and Innovation is to assist all components of the UNT Health in identifying research opportunities, securing support, overseeing research and insuring research and funding policy compliance. The Division consists of two units, Research Administration and Research Development & Commercialization which support and serve all UNT Health faculty, staff and students.

Research Administration:

- **Office of Sponsored Programs (OSP):** works closely with the faculty throughout the life of a sponsored project. The Associate Vice President of OSP is the institutions Authorized Official for sponsored project proposals and awards. OSP is composed of three teams: ○ Pre-Award for proposal review and submission; ○ Contracts for agreement negotiation and execution; ○ Post Award for award acceptance and management;

This office functions as the primary interface between UNT Health and external sponsors of sponsored projects. OSP provides services for the support of faculty and other investigators while promoting compliance with federal and state agencies, private sponsor agreements, and UNT Health research policies.

- **Research Financial Services:** This office is responsible for the compliance, and accountability in managing the University's research funds. ○ Grant Accounting and Fiscal Compliance for financial reporting, billing, and award closeout;

○ Research Information Systems and Analytics for software management, business analytics, and reporting related to Sponsored Programs.

- **Office of Postdoctoral Affairs:** This office has programs to provide career development and training. Postdocs are encouraged to participate in the Career Development Club, a program that brings together trainees and junior faculty to network and participate in strategic career planning, successful grant writing (focused on NIH K awards), publication submission, as well as developing their leadership and management skills and fostering their teaching and mentoring skills.

Some of the specific workshops and courses include:

- Creating your own Individual Development Plan
- Grant Writing course
- Specific Aims Workshop
- Mock Study Section
- Lab Management Bootcamp
- Scientific Communication
- Mentor Training
- Developing Teaching Skills
- Careers in Academics
- Preparing Job Application Materials: resumes, CVs & cover letters
- Interviewing skills
- Negotiating faculty job offers
- Alternative Careers for Scientists

- **Research Enhancement Assistance Program (REAP):** at UNT Health, was developed by the Office of Research and Innovation to work with the President's Research Council, the VPR's Research Advisory Committee, the School of Biomedical Sciences, and the Office of Institutional Advancement to identify funding opportunities for HSC faculty. REAP identifies new funding opportunities regularly, and updates are made to the grant opportunities section on the REAP webpage by category: external, fellowships, foundation, and limited submissions. REAP also manages the institution's intramural funding program which provides grantsmanship training by Dr. Paula Gregory who is regularly invited to give grantsmanship workshops at NIH.

- **Research Café:** The HSC Research Café offers workshops, classes and seminars in subjects that are crucial to an academic research career, including Research Resources, Grant Writing, Publishing Your Research and Identifying Funding Sources for your research.

- **Office of Research Compliance (ORC):** works with offices responsible for specific components of research compliance and university research oversight committees such as the Institutional Review Board, Institutional Biosafety, Institutional Animal Care and Use, and the Research Conflict of Interest committees to ensure the responsible conduct of research and compliance with university policies and federal regulations related to research activity. The office oversees the development and implementation of policies, procedures, and educational activities that satisfy university policies, state, and federal regulations governing the conduct of research. The ORC is responsible for monitoring regulatory updates and making recommendations to the university to ensure compliance.

RESPONSIBLE CONDUCT OF RESEARCH

Instruction in the responsible conduct of research is mandatory and a high priority at our institution. To that end, several review committees are in place to assure that research carried out at the UNT Health is compliant with governing University and Federal regulations**:**

- **The North Texas Regional Institutional Review Board (NTR IRB):** a collaboration of UNT Health and other regional hospitals and institutions, is responsible for protecting the welfare and rights of individuals who are subjects of any research, whether funded or unfunded, conducted by UNT Health faculty, staff, or students. The IRB reviews and approves all research involving human subjects. Research involving human subjects cannot be conducted without the approval of the NTR IRB. The Federal Wide Assurance number is 00005755. Federal guidelines for the conduct of research involving human subjects are provided by the United States Department of Health and Human Services and all members of the NTR-IRB are in compliance with Chapter 45 of the Code of the Federal Regulations (CFR) section 46.107. The NTR IRB reflects maturity, experience, and expertise to insure the rights and welfare of human subjects are protected. The NTR IRB, in accordance with federal regulations, ensures that all persons who are responsible for the design and conduct of a study complete educational training on the protection of human subjects. Further, the University is a member of both SMART IRB, a National IRB Reliance initiative, as well as IRB Exchange, and has several reciprocity arrangements with other universities and institutions throughout North America.
- **Institutional Animal Care and Use Committee (IACUC):** is a research oversight committee charged with the responsibility of ensuring the proper care and use of animals in research, testing and education. The IACUC also provides assistance to investigators in fulfilling their obligation to plan and conduct animal experiments in accordance with the highest scientific, humane, and ethical principles. Areas of expertise include the following: 1) Guidance on USDA and PHS animal rules and regulations; 2) Administrative support for IACUC activities and determinations; 3) Management of regulatory aspects of animal research protocols, and; 4) Assistance with maintaining appropriate laboratory standards. The IACUC is a key part of the larger Animal and Care Use Program (ACUP) at UNT Health.

- **The Institutional Biosafety Committee (IBC):** advises on matters relating to the safe use and handling of biological materials, including recombinant DNA molecules, on the UNT Health campus. The HSC IBC has been charged with the responsibility for institutional oversight of the use, storage, and disposal of biological materials including recombinant and synthetic nucleic acids, Viral vectors, microorganisms, infectious agents or potentially infectious materials, tissues, and cells including those utilized in animals or plants. Research involving biological hazards cannot be conducted without the approval of the IBC. The IBC is duly constituted and is a standing committee managed through a partnership of the Division of Research and Innovation and the Office of Environmental Health and Safety. Federal guidelines for the conduct of research involving biological hazards are provided by the United States NIH, and all of IBC members are following the 45 Code of the Federal Regulations section 46.107 regarding gender and diversity.
- **Research Conflict of Interest Committee (RCOI):** refers to situations in which financial or other personal considerations may compromise or have the appearance of compromising a researcher's professional judgment in conducting or reporting research. Federal regulations, state laws and University policies recognize that researchers may have financial interests in research sponsors and/or in entities with business interests closely related to their research. UNT Health is committed to ensuring an open and productive environment in teaching, patient care, and research. However, the ever-increasing complexity of our society and the various relationships between researchers and outside institutions require attention to ensure the avoidance of real or apparent conflict of interest issues. The ORC provides necessary training to understand and report real or perceived RCOIs. A RCOI Committee reviews all statements and works with the faculty, staff, or student member to develop a RCOI management plan when necessary.
- **Research Integrity and Misconduct:** the UNT Health is committed to maintaining the integrity of the research process. To fulfill the research portion of the university's mission, it is important for both researchers and research products to adhere to the highest standards. A UNT Health Research Integrity policy and SOP have been developed to ensure that individuals who deviate from those standards will be held accountable for their actions – the policy is based on the policy and guidance from the DHHS Office of Research Integrity (ORI). The policy applies to allegations of research misconduct, which include fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results. This policy is intended to comply with the research misconduct requirements of the U.S. Public Health Service (42 C.F.R. Part 93), the National Science Foundation (NSF 05-131, Chapter IX, Research Misconduct, 930933), the Office of Science and Technology (Federal Research Misconduct Policy, 65 Fed. Reg. 76,260, December 6, 2000), and any other applicable research misconduct requirements of agencies or entities providing research funding to UNT Health. Students, employees, patients and others may address a compliance concern the following ways: Discuss it with your Supervisor or Advisor, speak to the Chief Compliance Officer, 817735-5131, Seek guidance or file a report on the UNT Health Trust Line (formerly the Ethics Hotline).

OTHER UNIVERSITY RESOURCES

Gibson D. Lewis Health Science Library: supports the education, research, patient care, and community service missions of UNT Health by meeting the information needs of students, faculty, staff, and the local health sciences community. The library offers a full complement of services, including 24×7 worldwide access to scholarly bibliographic and clinical resources, borrowing privileges, use of individual and group study areas, photocopying and printing, and document delivery/interlibrary loan service. The library also provides expert instruction in the use of information resources, and access to professionally trained librarians for research and patient care related literature search assistance.

The library's staff of 32 FTE employees provides traditional in-person assistance along with remote help via virtual reference and chat services. The library spends over 2.9 million dollars each year acquiring scholarly and clinical resources and its collection contains over 28,000 electronic journals, approximately 35,000 print and electronic books, and 181 searchable databases in the biomedical sciences, clinical medicine, public health, and affiliated fields. All electronic resources can be accessed through the Lewis Library website and are available to UNT Health students, staff, and faculty from anywhere at any time. For those wishing to study, collaborate, and socialize in person, each of the library's three floors is available for student and faculty use 24 hours a day, 7 days a week.

Lewis Library manages the HSC Fort Worth Data Repository, a research data hosting service for UNT Health-affiliated faculty, staff, and students. The repository provides convenient tools that allow researchers to deposit, publish, and manage datasets, key functions regarding meeting funder mandates for the secure archiving and sharing of research data. HSC's data repository uses an open-source application called the Dataverse software, developed by Harvard University, and is hosted by the Texas Digital Library.

Lewis Library also maintains the UNT Health Scholarly Repository, known as UNT Health Scholar, an online resource that preserves intellectual works created by UNT Health faculty, staff, and students and enables discovery of these works by the international scientific community. In addition to working on digital content creation and preservation, Lewis Library operates the University Archives, which includes rare books and other UNT Health historical artifacts. The archives offer users the opportunity to access historical material in osteopathic and physical medicine as well as items related to the founding and administration of the Texas College of Osteopathic Medicine and the University of North Texas Health Science Center.

Lewis Library uses OCLC's online resource management system known as WorldShare Management Services (WMS) to acquire, process, and provide access to its collections. Students and faculty may obtain books and journals not held in the library by using the Tipasa web-based order and delivery system. Additionally, the library participates in TexShare, a state of Texas cooperative library program. TexShare allows UNT Health students, staff, and faculty physical access to and borrowing privileges from all public libraries as well as various public and private institutions of higher education in Texas. As a member of the University of North Texas System, the library is able to gain access to a wide array of electronic resources outside the health sciences. Lewis Library has also been an active participant in the Network of the National Library of Medicine since the 1980's and is additionally a member of the South Central Academic Medical Libraries Consortium (SCAMeL), a group of 21 academic medical/health science center libraries in Arkansas, Louisiana, Oklahoma, New Mexico, and Texas. The library's participation in these collaborative endeavors ensures that UNT Health students and faculty have access to the world of information beyond the walls of Lewis Library.

Lewis Library has been home to a Regional Medical Library (RML) of the Network of the National Library of Medicine (NNLM SCR) since May 2016. The RML originally served the South-Central Region of the Network and, as of May 2021, is serving as the coordinating body for Region 3. The library's service as the RML is based on a National Institutes of Health award, Cooperative Agreement 1UG4LM012345-01. As a unit of the National Library of Medicine, the Region 3 office aims to advance the progress of medicine and improve public health through increased access to health information within the states of Arkansas, Kansas, Louisiana, Missouri, Nebraska, Oklahoma, and Texas. The RML extends the services and programs of the NNLM and the National Library of Medicine by partnering with health focused agencies and organizations, public health entities, community-based organizations, libraries, and the general public to offer outreach, funding opportunities, and educational programming throughout the region. In addition to its traditional services to the UNT Health community and its role as host to a regional office of the National Library of Medicine, the library administers a handful of other important programs.

Since 2017, Lewis Library has managed the John S. Marietta Memorial Medical Library for the JPS Health Network, the public hospital and clinic system based in Fort Worth and the surrounding county. In cooperation with JPS Administration, Lewis Library provides professional clinical librarian support throughout the main hospital facility along with electronic access to a robust collection of clinical care information resources. Beginning in 2018, Lewis Library assumed responsibility for maintaining UNT Health's records program to preserve and protect information that is vital to the essential functions of the organization. In compliance with the Texas State records management program, UNT Health records program ensures that state government information is retained and accessible to the people of Texas.

INFORMATION TECHNOLOGY SERVICES: Provides innovative and customer-focused information technology and services to advance UNT Health's strategic focus of People and Values, Learning and Discovery, Quality (outcomes and experience), and Growth and Finance.

- **Zoom Capability:** UNT Health has a site license with Zoom that allows all faculty, staff, and students to have Zoom licensed accounts that can facilitate up to 300 participants at a time. There are currently 1762 HSC faculty, staff, and students that have accounts on the university license. Arrangements can also be made for HIPAA compliant Zoom licenses when needed. We have access to zoom usage data and how many meetings have been hosted.
- **Classroom and Events Technology Support (CETS):** provides audio-visual and related support for the technology in the classrooms and special events both, on and off campus. Offers full classroom technology support including all audio/visual equipment and related services, as well as consultation, equipment rentals, project management and event support
- **Helpdesk and Client Services:** is the first point of contact for any computer or mobile device matters from computer installations, repairs, and to moves. The customer support team works with other ITS areas on technology projects and roll-outs. Student computer

technicians are also responsible for the support of various laptop and mobile device programs.

- **Copier/ MFD Services:** Supports and manages UNT Health's leased copiers and multifunction devices (MDF) fleet by providing equipment, support, and supplies.
- **Telecommunications:** Provides telecommunication management and services (as appropriate) to faculty, staff, students, patients, and the general public; provides technical guidance and support for telecommunication programs; provides end-user training and to assistance in the use of telecommunication products throughout UNT Health Science Center.
- **Information Security Office (ISO):** assures the security and protects the confidentiality, integrity, and availability of Health Science Center information resources. The ISO collaborates with institutional IT leadership, audit, compliance, and legal departments to support the institution's education, research, and healthcare missions.
- **Product Development and Engineering:** provides early feedback about the technology aspects of an idea, the plan and the budget. Armed with the preliminary plan, a process of creating software in iterations will build products incrementally until they are ready to be delivered.
- **Electronic Laboratory Notebook:** The UNT Health subscribes to the Enterprise Edition of the electronic laboratory notebook (ELN) platform, LabArchives which provides unlimited, secure data storage to all UNT health employees. This cloud-based ELN provides real-time 24/7 access to easily create, store, and manage data while at the same time allowing secure sharing of data within and outside of the UNT Health. With this feature, LabArchives provides an easy avenue for compliance with funding agencies' data management plan requirements. There is a complete audit trail for all entered information, as no entries can be deleted, and all updates are automatically time-stamped and attributed to the user making the update. LabArchives servers are kept in a secure, primary data center with a separate, disaster recovery data center thousands of miles apart. Finally, all data entered into LabArchives can be retrieved or archived in HTML or PDF formats for additional backup or transfer with a researcher to a new institution.
- **INCEDO:** Within UNT Health lies a center that serves a truly unique purpose — to connect the colleges, providers, and administrators to outcomes-driven continuing educational solutions. INCEDO consistently uncovers new ways to engage and enlighten providers, researchers and leaders to continuing education, community programs and internal collaborations that focus on improving quality across the organization through meaningful, measurable impact. This office collaborates to inspire and innovates to drive outcomes. INCEDO is nationally accredited by the Accreditation Council on Continuing Medical Education (ACCME) and the American Osteopathic Association (AOA) -- one of a handful of providers in the country to hold the distinction of maintaining dual accreditation. In fact, each year INCEDO registers more than 12,000 healthcare professionals at more than 500 activities each year. UNT Health's INCEDO is a national leader in continuing education and has a proven track record of improving competence and performance of healthcare professionals, leading to improvements in patient health and community health outcomes.

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