



Making Cancer History®



The University of Texas MD Anderson Cancer Center is ranked No. 1 for cancer care by U.S. News and World Report's "Best Hospitals" survey.



University of Texas System MD Anderson was created in 1941 as part of The University of Texas System.



The 10:1 student-to-faculty ratio means a small class size, which ensures individual attention.



2020-2021 Estimated tuition and official fees for 15 semester credit hours.

25%

Top 25% School of Health Professions students routinely score in the top 25% on national certification exams.

School of Health Professions

Message from the Co-Deans

Our School of Health Professions students have a unique learning experience because they're training at the leading cancer center in the nation and learning from expert faculty. Students acquire specialized skills through classroom instruction, hands-on practice with state-of-the-art equipment and clinical experience in affiliated hospital clinics and/or research laboratories across the country. As a result, our graduates are often recruited by MD Anderson and other leading health care organizations in the Texas Medical Center, State of Texas and across the nation.

We invite you to look through this viewbook to learn more about our degrees in rewarding allied health careers.

Peter Hu, Ph.D., FACSc *Dean ad interim Professor* **William Undie, Ed.D.** Dean ad interim Associate Professor







Bachelor Degree Programs

The School of Health Professions provides an academic and clinical education in a broad spectrum of degrees that can only be found at a major medical care and academic research center such as The University of Texas MD Anderson Cancer Center.

Flexible enrollment programs

Flexible enrollment options include online, hybrid, weekend, part time and distance learning education.

Health Care Disparities, Diversity and Advocacy	10
Cytogenetic Technology	14
Diagnostic Imaging with a specialization in Computed Tomography	24
Diagnostic Imaging with a specialization in Education or Management	28
Medical Dosimetry	32
Radiation Therapy	34

Laboratory science programs

Medical laboratory scientists combine their knowledge of disease processes with a technical expertise that enables them to play a crucial role in diagnosing disease.

Clinical Laboratory Science	12
Cytogenetic Technology	14
Cytotechnology	16
Histotechnology	18
Molecular Genetic Technology	20

Radiologic science programs

Radiologic Sciences, also referred to as Medical Imaging, includes Diagnostic Imaging, Radiation Therapy and Medical Dosimetry. Diagnostic Imaging is a medical field that utilizes ionizing radiation, sound waves, magnetic fields and radiofrequencies, or radioactive nuclides to produce medical images for the diagnosis and treatment of human disease. The fields of Radiation Therapy and Medical Dosimetry work in concert to deliver radiation oncology treatment plans to cancer patients.

Diagnostic Imaging	. 22
Diagnostic Imaging with a specialization in Computed Tomography or Computed Tomography/Vascular Interventional	24
Diagnostic Imaging with a specialization in Magnetic Resonance Imaging	. 26
Diagnostic Imaging with a specialization in Education or Management	. 28
Diagnostic Medical Sonography	. 30
Medical Dosimetry	. 32
Radiation Therapy	. 34

The path to earning a bachelor of science degree from the School of Health Professions at The University of Texas MD Anderson Cancer Center

Prerequisites

Complete all required prerequisites for each program. Prerequisites include the Texas Core Curriculum and additional specific courses. If you have already earned a bachelor's degree, you may apply to one of our programs with the goal of earning a second bachelor's degree.

Enrollment

School of Health Professions students attend classes taught by expert faculty in the School of Health Professions' state-of the-art classrooms and laboratories situated within The University of Texas MD Anderson Cancer Center at 1515 Holcombe Blvd., Houston, TX 77030.



As part of the curriculum, students first rotate through MD Anderson's research and clinical areas and may gain further experience at affiliated local and out-of-state clinical laboratories, and outpatient diagnostic and radiologic treatment centers. As a result, our graduates have the knowledge and skill to work in a wide variety of settings and have established a working relationship with potential employers.



The job market for all programs in the School of Health Professions is excellent. According to the American Hospital Association and Bureau of Labor Statistics, the demand for health professions in health sciences will continue to increase. Positions are available in hospitals, research, independent laboratories, industry, government agencies and academia. The quality of education that students receive at The University of Texas MD Anderson Cancer Center prepares them to succeed technically and academically in their chosen profession.

Competitive Application Process

Pay careful attention to the Priority Deadline date. Start your application to one of our specialized programs as early as possible. Although acceptance into the programs is highly competitive, each application is carefully reviewed by an admissions committee that considers not only academic achievement, but also other important factors that include communication skills and experience in the field either in a professional capacity or as a volunteer or intern. Admission interviews are conducted by invitation only.

Graduation

Our graduates earn a Bachelor of Science degree from The University of Texas MD Anderson Cancer Center, an institution that is respected throughout the United States and worldwide for its innovation in patient care, research, education and prevention.

Certification

Students who have graduated become eligible to take the Certification Examination in their respective field. Certification is usually a requirement for employment in all program areas, and our graduates have a long history of passing certification exams on the first attempt.

Prerequisite courses

Applicants must complete prerequisite courses prior to enrolling in the School of Health Professions. Prerequisites include a combination of Texas Core courses and specific math and science courses that vary by program. Visit MDAnderson.org/SHPapply for a complete list of prerequisite courses.

Texas Core courses listed below are identified using the Texas Common Course Numbering System TCCNS.org.

The Texas Core Curriculum – 42 Semester Credit Hours (SCH)	
Communication ENGL 1301 English Composition I ENGL 1302 English Composition II	6
Mathematics MATH 1314 College Algebra or higher	3
Life and Physical Sciences Courses in biology, chemistry, physics, geology or other natural sciences	12
Language, Philosophy and Culture Courses in literature, philosophy, modern or classical language/literature, cultural studies or equivalent	3
Creative Arts Courses in arts, dance, music appreciation, music, drama or equivalent	3
American History HIST 1301 United States History I HIST 1302 United States History II	6
Government/Political Science GOVT 2305 Federal Government GOVT 2306 Texas Government or GOVT 2301 American Government I GOVT 2302 American Government II	6
Social and Behavioral Sciences Courses in anthropology, economics, criminal justice, geography, psychology, sociology, social work or equivalent	3
Total Texas Core Curriculum SCH	42

Competitive Application Process

Students enter the program in August each year. Applicants will be selected through a competitive and holistic admission process. Our holistic review process include consideration of the following factors: GPA, completion of prerequisite courses at the time of application, essay and professional recommendation forms. Select programs also take into consideration a clinical observation and interview. A minimum overall GPA and science GPA of 2.5 on a 4.0 scale is required for admission consideration. Meeting the minimum criteria does not guarantee acceptance.

^L• Access all required forms and review detailed prerequisites at MDAnderson.org/SHPapply.

Submit all documents by the following application deadlines

Applicants are highly encouraged to submit the application and all supporting documents by the priority application deadlines. To ensure all documents are matched properly, make sure to <u>submit your admissions application before your</u> <u>supporting documents</u>. Applications received after the priority dates will be considered for admissions only if space is available.

PRIORI	TY DATES	
September 15	Applications open	
February 1	Diagnostic Medical Sonography	
March 1	Diagnostic Imaging	
	Medical Dosimetry	
	Radiation Therapy	
April 1	Clinical Laboratory Science	
	Cytogenetic Technology	
	Cytotechnology	
	Health Care Disparities, Diversity and Advocacy	
	Histotechnology	
	Molecular Genetic Technology	
	Diagnostic Imaging - CT	
These specializations	Diagnostic Imaging - CT/VI	
are only available to professionals certified	Diagnostic Imaging - MRI	
through ARRT, NMTCB	Diagnostic Imaging - Education	
or ARDMS.	Diagnostic Imaging - Management	

2 Review prerequisite requirements

The School of Health Professions only offers upper-level coursework. For this reason, prospective students should complete the Texas Core Curriculum and specific prerequisite requirements for each program.

S Complete online application

Apply online to MD Anderson Cancer Center School of Health Professions at MDAnderson.org/SHPapply. Please make sure to complete the essay question on the online application. Pay a non-refundable application fee.

4 Submit three recommendations

Professional Recommendation Forms can be downloaded from MDAnderson.org/SHPapply.

S Submit official college transcript(s) from each school attended

The transcript(s) should show a record of all academic work completed and be sent directly from the corresponding college to the Office of the Registrar at UTHealth Houston. To ensure prompt processing, request that your school sends transcripts using "SPEEDE." If your school cannot send "SPEEDE" transcripts, colleges may send transcripts in the mail or electronically.

6 Foreign college transcript(s)

All applicants with foreign college transcripts/ mark sheets must have a course-by-course and grade-by-grade evaluation by an approved evaluation agency.

7 Attend information session

All applicants to the Diagnostic Imaging or Diagnostic Medical Sonography program are required to attend an information session. Visit MDAnderson.org/SHP for the Information Session schedule.

8 Complete clinical site visit

This is only a requirement for applicants to the Diagnostic Imaging and Radiation Therapy programs.

Diagnostic Imaging – Only competitive applicants will be invited by program officials to schedule and complete an 8 hour clinical visit.

Radiation Therapy – All applicants are required to schedule a 16-hour clinical site visit.

Contact the Radiation Therapy Program at 713-792-3455 for scheduling.

9 Submit all required documents to:

Office of the Registrar UTHealth Houston P.O. Box 20036 Houston, TX 77225-0036 713-500-3361

2020-2021 Estimated costs



Based on 15 semester credit hours

	Texas resident	Non- resident
Tuition and Fees	\$2,000	\$8,350
Books and Supplies	\$550	\$550

Cost of books and supplies vary by program. All students are required to be covered by health insurance. This expense is not reflected above. At the time of printing, tuition for 2020-2021 has not yet been determined by the Texas Higher Education Board.

Financial aid

More than 87% of students attending the School of Health Professions receive some form of financial aid. Complete the Free Application for Federal Student Aid (FAFSA) online at FAFSA.ed.gov.

While there is no application deadline for financial aid, it is recommended that students complete the required documents as soon as possible to be considered for institutional funds. Students should select the appropriate school code to avoid delays in the award process. FAFSA code: 017249

Scholarships

School of Health Professions competitive scholarships are awarded annually to newly accepted degree candidates and current students of one of The University of Texas MD Anderson Cancer Center School of Health Professions degree programs. Scholarship awards are based on academic achievement, leadership abilities and professional goals and aspirations.



Providing world-class patient care requires knowledge and skills that address patient advocacy; health care disparities; and the diverse cultural needs of patients. This exciting specialty, offered at the School of Health Professions, builds the insight and experience needed for a career working closely with patients from all backgrounds. The program will enhance the skills of students who are currently practicing in health care disciplines. Individuals not practicing in health care will learn skills to ensure quality familyand patient-centered care is offered to diverse patient populations through patient advocacy.

The Program in Health Care Disparities, Diversity and Advocacy offers a pathway for individuals holding national certification in a health-care related field, or for applicants who wish to build on their college credits to earn a Bachelor of Science degree. This is an ideal bridge program from an associate's degree to a bachelor's degree.

Program structure

The degree is offered in a non-traditional format that combines online courses with face-to-face clinical preceptors. Nearly 90% of the content is delivered online, including synchronous interactions with the faculty during class meetings and asynchronously delivered class content and teaching. Approximately 10% of the content is gained through clinical preceptorships and a capstone. Participants have the flexibility of enrolling full time or part time.

Clinical education

Clinical preceptorships allow the student to demonstrate the skills learned and gain professional field experience under the guidance of a preceptor. Students complete clinical preceptorships in advocacy and diversity to develop professional skills needed to be successful in the field of health care disparities, diversity and advocacy.

Students who have the Texas Core and elective courses completed may apply for admission. A degree plan will be developed to ensure the completion of required courses prior to graduation.

Careers

Community Relations Coordinator Diversity Trainer Government Policy Maker Health Care Communications Health Disparity Research Assistant Health Services Administration Inter-institutional Partnerships Manager Patient Advocate Patient Advocate Patient Affairs Patient and Faculty Advisor Patient Experience Professional Patient Service Coordinator Patient Support Representative Case Manager for Nurses

This list is not all inclusive. Many health care facilities use a variety of titles for individuals working in health care disparities, diversity and advocacy.

Prerequisites

for Health Care Disparities, Diversity and Advocacy

Minimum of 72 semester credit hours (SCH) that include:

TEXAS CORE CURRICULUM (42 SCH)

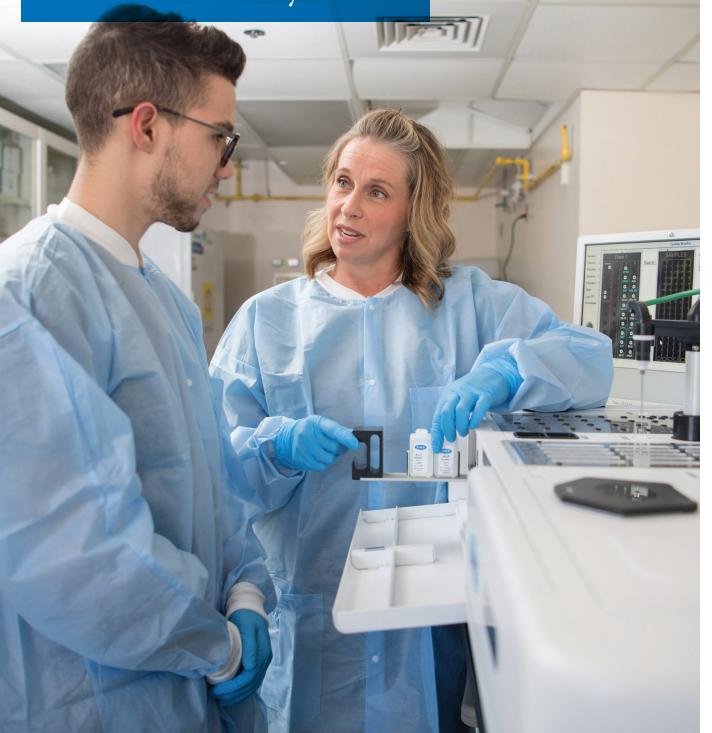
ELECTIVE COURSES (30 SCH)

OPTION 1: Transfer 30 SCH of elective courses from regionally accredited colleges and universities. Remedial-level courses will not be accepted.

OPTION 2: Applicants holding a national certification in a health care discipline (e.g. Medical Laboratory Technician, Surgical Technologist, Dental Hygienist) may be awarded a maximum of 30 SCH at the discretion of the School of Health Professions' Curriculum Committee. Remedial-level courses will not be accepted.

OPTION 3: Applicants may choose to complete the 30 SCH of elective courses at the School of Health Professions. Course offerings vary by semester.





Medical Laboratory Scientists are detectives and problem solvers who use their knowledge and technical skills to conduct a wide variety of clinical laboratory tests and then correlate the results with disease processes. They are experts in monitoring quality-control programs and also possess the technical skills to operate and maintain laboratory instruments.

The Program in Clinical Laboratory Science is an intensive course of study that combines classroom lectures with laboratory demonstrations and hands-on technical experience. Because MD Anderson Cancer Center is one of the largest cancer centers in the world, many special areas of instruction are presented, such as techniques involving tumor markers, bone marrow interpretation, flow cytometry, and a variety of molecular techniques. The program provides students with the depth of experience that more than adequately prepares them for national certification as Medical Laboratory Scientists.

Careers

Medical Laboratory Scientists are in high demand nationwide in clinical and diagnostic industry laboratories and educational programs. Career paths include developing new diagnostic techniques, managing laboratory information systems and freelance consulting.

Clinical education

By combining classroom lectures with benchwork in the highly specialized student lab, the faculty of the Clinical Laboratory Science program lay the groundwork for proficiency in the specialty areas of Clinical Chemistry, Hematology, Blood Banking and Microbiology. Students are then well prepared and ready to participate in 552 guided clinical rotation hours, which will complete their education. Affiliation sites include the MD Anderson clinical sites, as well as institutions within the Texas Medical Center and beyond.

CURRENT AFFILIATIONS

Conroe, TX Conroe Regional Medical Center

Decatur, TX Wise Health System

Houston, TX CHI St. Luke's Health-Baylor St. Luke's Medical Center Texas Children's Hospital The University of Texas MD Anderson Cancer Center

The Woodlands, TX CHI St. Luke's Health-The Woodlands Hospital

Prerequisites

for the two-year program

Minimum of 60 semester credit hours (SCH) that include:

TEXAS CORE CURRICULUM (42 SCH) AND ADDITIONAL 18 SCH. Total of 60 must include:

8 SCH in Biological Sciences that may include Biology, Human Anatomy and Physiology with or without laboratory components

12 SCH in Chemistry to include General Chemistry I and II, Organic Chemistry I

4 SCH in either Organic Chemistry II or Biochemistry

Note: 12 of the above 24 SCH may be satisfied by the Life and Physical Sciences Texas Core course selection.

Cytogenetic Technology

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Cytogeneticists are puzzle solvers who seek answers to diagnosis and treatment questions by studying chromosomes and genes. They search for clues by using conventional and molecular DNA techniques and the latest computer imaging technology to study a single individual's chromosomes or genes. Often, it is the cytogeneticist who first identifies a chromosomal abnormality or reports on the effectiveness of powerful therapy that targets a single genetic abnormality.

The Program in Cytogenetic Technology is a highly intensive course of study. Students learn through extensive hands-on training at MD Anderson, using some of the most sophisticated equipment that is available today. Participants in the program become proficient in the major disciplines of cytogenetic testing including: chromosome identification, fluorescent in situ hybridization, comparative genomic hybridization and computer digital imaging.

Program structure

This program's flexible structure allows working adults several options to complete a degree in Cytogenetic Technology including on campus part-time enrollment, on-campus full-time enrollment and hybrid online enrollment.

Hybrid online program

Nearly 80% of the content is delivered online, including asynchronous delivered class content. Approximately 20% of the content is gained through direct campus participation. Students have access to online chromosome identification training through KaryoTutor and online course management software. Lab experience will be gained during a consolidated one-week lab session at the conclusion of each semester.

Careers

Cytogenetic technologists are in high demand nationwide in clinical and diagnostic laboratories. They work in both cancer and constitutional genetics labs located in academic or research facilities, hospitals, outpatient medical facilities, lab services companies and biotechnology companies.

Clinical education

Cytogenetic Technology program students develop an in-depth knowledge and acquire sophisticated and up-to-date skills in the field of Clinical Cytogenetics. Formal classroom lectures are combined with the very latest equipment in highly specialized student labs. The curriculum includes the theory and hands-on practice of essential laboratory techniques associated with banding, chromosome analysis, Fluorescent in situ Hybridization (FISH), computer imaging, and array Comparative Genomic Hybridization (aCGH). This immersion in the field of Cytogenetic Technology fully prepares students for the 480 hours of guided clinical rotation hours that will complete their education.

CURRENT AFFILIATIONS

Dallas, TX Med Fusions The University of Texas Southwestern Medical Center

Houston, TX Baylor-Miraca Genetics Laboratories Texas Children's Hospital

San Antonio, TX CorePath

Phoenix, AZ Inform DX

Fort Meyers, FL NeoGenomics, Inc.

Chicago, IL ACL Laboratories Northwestern University

The University of Chicago

St. Louis, MO Washington University

Bronx, NY Montefiore Med CTR

Philadelphia, PA Thomas Jefferson University

Prerequisites

for the two-year program

Minimum of 60 semester credit hours (SCH) that include:

TEXAS CORE CURRICULUM (42 SCH) AND ADDITIONAL 18 SCH. Total of 60 must include:

8 SCH in Biological Sciences

16 SCH in Chemistry

Note: 12 of the above 24 SCH may be satisfied by Life and Physical Sciences Texas Core course selection

Prerequisites

for the one-year or online program

Minimum of 90 SCH that include:

TEXAS CORE CURRICULUM (42 SCH) AND ADDITIONAL 48 SCH. Total of 90 must include:

11 SCH of upper level division courses (3000, 4000)

8 SCH in Biological Sciences

16 SCH in Chemistry

3 SCH of Microbiology

3 SCH of Genetics



Cytotechnology is a rewarding and challenging profession in which you can play a critical role in detecting disease. If you like investigating the unknown and making a difference in health care, consider a career as a cytotechnologist. Cytotechnologists use their expertise with the microscope to examine human cells for the subtle clues that signal the presence of disease. In fact, cytotechnologists often point the way to lifesaving treatment when they recognize the presence of cancer, bacteria, viruses or other pathogens.

The Program in Cytotechnology combines interactive lectures with hands-on experience in the laboratory. In addition to the standard microscope, students use a variety of highly specialized diagnostic tools that include computer digital imaging, molecular biological techniques and genetic marker studies. In the third semester, students refine their skills during rotations through clinical labs at MD Anderson and affiliated sites.

Careers

Cytotechnologists are in high demand nationwide in hospitals, reference laboratories, corporations, and research laboratories, where they work as staff cytotechnologists, supervisors, educators, technical support specialists and researchers.

Clinical education

The Cytotechnology Program combines classroom lectures with hands-on experience. Students perform microscopic evaluation of gynecological, non-gynecological and fine needle aspiration specimens to increase diagnostic accuracy. Students also learn cytopreparatory techniques such as specimen collection, specimen preparation and specimen staining. The student lab is designed to simulate a working cytotechnology lab and is equipped with a multi-head microscope system that allows students and instructors to simultaneously view the same specimen slide. This combination of formal instruction and hands-on learning fully prepares students for the 480 hours of guided clinical rotation hours that will complete their education.

CURRENT AFFILIATIONS

Galveston, TX The University of Texas Medical Branch at Galveston

Houston, TX Lab Corp Houston Methodist Hospital The University of Texas MD Anderson Cancer Center Quest Diagnostics

Prerequisites

for the two-year program

Minimum of 60 semester credit hours (SCH) that include:

THE TEXAS CORE CURRICULUM (42 SCH) AND ADDITIONAL 18 SCH. Total of 60 must include:

8 SCH in Biological Sciences to include 4 SCH in Anatomy and Physiology

8 SCH in general or higher level Chemistry

Note: 12 of the above 16 SCH may be satisfied by the Life and Physical Sciences Texas Core course selection

Prerequisites

for the one-year program

Minimum of 90 SCH that include:

THE TEXAS CORE CURRICULUM (42 SCH) AND ADDITIONAL 48 SCH. Total of 90 must include:

18 SCH of upper level division courses (3000, 4000)

20 SCH in Biological Sciences to include 4 SCH in Anatomy and Physiology

8 SCH in General or higher level Chemistry

Note: 12 of the above 28 SCH may be satisfied by the Life and Physical Sciences Texas Core course selection.

Histotechnology

Histotechnologists play a fundamental role in detecting abnormalities of cells. A histotechnologist prepares very thin slices of human, animal or plant tissue for microscopic examination. This is an important part of the intricate process of scientific investigation used in establishing and confirming patient diagnosis. Because of the histotechnologist's skillful application of laboratory techniques, the amazing invisible world of tissue structure becomes visible under a microscope.

The Program in Histotechnology combines classroom instruction with hands-on laboratory practice in the highly specialized skills that are required for the fine art of sectioning and staining tissue. The result is that students are immersed in both theoretical knowledge and hands-on practice. Students gain additional practical experience through interactive training in affiliated hospital clinical and research laboratories. The program more than adequately prepares students for national certification as histotechnologists.

Histotechnology professional option

The School of Health Professions program in Histotechnology also has an additional pathway to earning a Bachelor of Science degree in Histotechnology. This flexible option is available to working Histotechnology professionals who aspire to continue their education while maintaining full-time employment.

This program is open to individuals who currently:

- Hold HT-ASCP certification
- Have a minimum of one full year's experience in the field
- Currently practice their profession in a working Histotechnology Service Laboratory

For more information, contact either of the following Histotechnology faculty members:

Mark Bailey HTL (ASCP)CM Histotechnology Program Director mabailey@mdanderson.org

Toysha Mayer HT (ASCP) Histotechnology Associate Program Director tnmayer@mdanderson.org

Careers

Histotechnologists are in high demand in the United States and worldwide. Their career options include hospital diagnostic labs, university research labs, medical schools, veterinary medicine, private reference labs and forensic labs. They enjoy careers as staff histotechnologists, supervisors, laboratory educators, technical support specialists and researchers.

Clinical education

The Histotechnology program combines classroom lectures with benchwork in highly specialized student labs that simulate working clinical histopathology labs. Students are immersed in a hands-on clinical experience that includes tissue specimen collection and preparation, including frozen sections, biopsy grossing, special staining techniques and tissue archival methods for molecular diagnostic tests. This depth of knowledge and hands-on experience ensures that students acquire the techniques and the knowledge they will need during the 400 hours of clinical rotation that will complete their education.

CURRENT AFFILIATIONS

Bastrop, TX

The University of Texas MD Anderson Cancer Center Department of Veterinary Medicine

College Station, TX

Texas A&M Veterinary Integrative Biosciences Program

Houston, TX

Baylor College of Medicine Ben Taub General Hospital Harris County Institute of Forensic Sciences Houston Methodist Hospital - Texas Medical Center Houston Northwest Medical Center Michael E. DeBakey VA Medical Center MLD Pathology Sagis Diagnostics The University of Texas MD Anderson Cancer Center The University of Texas MCGovern Medical School

Prerequisites

for the two-year program

Minimum of 60 semester credit hours (SCH) that include:

TEXAS CORE CURRICULUM (42 SCH) AND ADDITIONAL 18 SCH. Total of 60 must include:

4 SCH in Biology I

4 SCH in Biology II

4 SCH in General Che<u>mistry I</u>

8 additional SCH in Biology and/or Chemistry

Note: Intro biology and intro chemistry will not be accepted.

Prerequisites

for the one-year program or professional option

Minimum of 90 SCH that include:

TEXAS CORE CURRICULUM (42 SCH) AND ADDITIONAL 48 SCH. Total of 90 must include:

4 SCH in Biology I

4 SCH in Biology II

4 SCH in General Chemistry I

18 additional SCH in Biology and/or Chemistry

18 SCH of upper level division courses (3000, 4000)

Note: Intro biology and intro chemistry will not be accepted.

Molecular Genetic Technology

Molecular Genetic Technologists study the role of genetics in detecting disease and determining treatment. This specialty is on the cutting edge of the latest methodologies and topics in genetics, including neurological disorders, infectious diseases, prenatal and postnatal diagnostics, risk assessment for familial cancer, and human identity testing that includes forensics.

The Program in Molecular Genetic Technology immerses students in the major disciplines of clinical molecular genetics analysis and testing using some of the most sophisticated equipment and techniques available. The program faculty and clinical mentors provide students with an unparalleled depth of experience and knowledge that prepares them for internships at worldrenowned molecular genetics laboratories.

Careers

Certified clinical molecular genetic technologists are in high demand within the United States and worldwide. They have a wide range of career options that include: molecular genetics research labs within cancer treatment and research centers; pathology labs; pediatric and genetic counseling clinics; chemical industry labs; biotechnology companies; public and private forensic labs; and academic institutions.

Clinical education

The Molecular Genetic Technology faculty combine classroom lectures with bench work in student laboratories that contain highly specialized, stateof-the-art equipment. This environment ensures that students are well prepared and ready to participate in the 480 hours of guided clinical rotations at MD Anderson clinical affiliation sites within the Texas Medical Center and beyond.

CURRENT AFFILIATIONS

Dallas, TX MedFusion Propath Inc.

Galveston, TX The University of Texas Medical Branch at Galveston

Houston, TX Access DX Applied Diagnostics Baylor-Miraca Genetic Laboratories Ben Taub Hospital Family Tree DNA Houston Methodist Hospital Texas Children's Hospital The University of Texas MD Anderson Cancer Center

Round Rock, TX Sonic Reference Laboratory

San Antonio, TX University of Texas Health Science Center at San Antonio

Denver, CO Colorado Genetics Laboratory

New Haven, CT Yale University, School of Medicine

Atlanta, GA Emory University, School of Medicine

Honolulu, HI Diagnostic Laboratory Services, Inc.

Chicago, IL The University of Chicago, Department of Human Genetics **Iowa City, IA** University of Iowa

Boston, MA Mass General Hospital, Harvard Medical School

Asheville, NC Fullerton Genetics - Mission Health

Durham, NC Duke University, Department of Pathology

Bronx, NY Albert Einstein, School of Medicine

Columbus, OH The Ohio State University

Oklahoma City, OK Oklahoma State Department of Health

Hershey, PA Penn State College of Medicine

Philadelphia, PA Children's Hospital of Philadelphia (CHOP)

Danville, PA Geisinger

Greenwood, SC Greenwood Genetics Laboratory

Chantilly, VA Quest Diagnostics

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Prerequisites

for the two-year program

Minimum of 60 semester credit hours (SCH) that include:

TEXAS CORE CURRICULUM (42 SCH) AND ADDITIONAL 18 SCH. Total of 60 must include:

8 SCH in Biological Sciences

16 SCH in Chemistry to include Organic Chemistry and/or Biochemistry

Note: 12 of the above 24 SCH may be satisfied by the Life and Physical Sciences Texas Core course selection

Prerequisites

for the one-year program

Minimum of 90 SCH that include:

TEXAS CORE CURRICULUM (42 SCH) AND ADDITIONAL 48 SCH. Total of 90 must include:

12 SCH of upper level division courses (3000, 4000)

8 SCH in Biological Sciences

16 SCH in Chemistry to include Organic Chemistry and/or Biochemistry

3 SCH of Microbiology

3 SCH of Genetics



Diagnostic Imaging is the art and science of using imaging equipment to produce images of organs and structures in the human body. The radiologic technologist is responsible for producing many of the diagnostic images that the radiologist uses to diagnose patient injuries and disease processes.

The program is designed to prepare students for a challenging career in the Radiologic Sciences through formal didactic and clinical training. The Program is sponsored by The University of Texas MD Anderson Cancer Center School of Health Professions (SHP) and receives additional support from the Division of Diagnostic Imaging. Students are educated in the institution's state-of-the-art Diagnostic Imaging center and several other affiliated hospitals in the internationally renowned Texas Medical Center and throughout the metropolitan Houston area. The program's excellent faculty and preceptors work closely with students in a variety of clinical settings. Since its inception in 2005, the program has been successful in graduating highly skilled entry-level technologists. The Diagnostic Imaging program offers two pathways of study leading to a Bachelor of Science degree. It is designed for applicants without professional credentials in the radiologic sciences. (Technologists or sonographers who hold a prior credential and wish to expand their knowledge in Diagnostic Imaging modalities while earning their bachelor's degree should refer to pages 24-29.)

The first two years of study are dedicated to completing the ASRT Radiography Curriculum, and upon completion, the student is awarded a certificate of completion which may be used to seek State certification. Successful completion of the radiography curriculum also allows the student to sit for the American Registry of Radiologic Technologists (ARRT) credentialing examination in Radiography. Students who successfully pass ARRT certification choose a specialization from the following options below to complete their bachelor's degree.

Computed Tomography (1 year full-time; 2 years part-time) **Computed Tomography and Vascular Interventional** (1 year) **Diagnostic Medical Sonography** (2 years)

Education (1 year full-time; 2 years part-time) **Magnetic Resonance Imaging** (1 year) **Management** (1 year full-time; 2 years part-time)

Careers

Radiographers are in high demand nationally and have excellent opportunities for career advancement in specialty modalities and graduate programs. The U.S. Bureau of Labor Statistics predicts the job outlook for radiographers will grow 21% by 2022.

Clinical education

Students complete their Radiography clinical internships at The University of Texas MD Anderson Cancer Center, as well as several other facilities in the Texas Medical Center and Houston metropolitan area. This facilitates additional experience in variety of clinical settings with diverse patient populations.

CURRENT AFFILIATIONS

CHI St. Luke's Health-Baylor St. Luke's Medical Center Houston Methodist Hospital - Texas Medical Center Medical Clinic of Houston Memorial Hermann Hospital - Southwest, Texas Medical Center, TIRR Memorial MRI and Diagnostic Michael E. DeBakey VA Medical Center North Cypress Hospital Texas Children's Hospital - Texas Medical Center, Cypress, Kirby, Sugar Land The University of Texas MD Anderson Cancer Center - Texas Medical Center, West Houston (imaging and blood work)

The University of Texas Medical Branch at Galveston

Prerequisites

for the Certificate in Radiologic Sciences Program

Minimum of 42 semester credit hours (SCH) that include:

TEXAS CORE CURRICULUM (42 SCH)

4 SCH IN ANATOMY AND PHYSIOLOGY I

Note:

Completion of the Texas Core Curriculum is recommended, but applicants with a minimum of 30 SCH of the Texas Core, including Anatomy and Physiology I, may be considered for admission.

Prerequisites

for the three-year Bachelor of Science Program in Diagnostic Imaging

Minimum of 42 SCH that include:

TEXAS CORE CURRICULUM (42 SCH)

4 SCH IN ANATOMY AND PHYSIOLOGY I

Notes:

Completion of the Texas Core Curriculum is recommended, but applicants with a minimum of 30 SCH of the Texas Core, including Anatomy and Physiology I, may be considered for admission.

Completion of an Associate or Bachelor's degree is required to sit for the ARRT exam.



Computed Tomography Vascular Interventional

Computed Tomography

Computed Tomography (CT) uses ionizing radiation to produce cross-sectional images or "slices" of the body, similar to slices in a loaf of bread. These images are used for diagnosing fractures or several other pathologies in the body. The Diagnostic Imaging faculty provides didactic and clinical education to prepare students to take the advanced registry examination in CT, administered by the American Registry of Radiologic Technologists (ARRT).

The program in Computed Tomography allows students to complete their degree in as little as 12 months (full-time) or 24 months (part-time). The part-time option allows students the flexibility to juggle the demands of family, career and school. The first year will include most of the classroom work delivered in a traditional format (Monday - Friday). During the second year, students will primarily focus on the clinical component of the program.

Computed Tomography and Vascular Interventional Radiology

The Computed Tomography and Vascular Interventional (VI) Radiology track will focus on the theory, methodology and skills required for Diagnostic Imaging technologists to perform Computed Tomography and Vascular Interventional procedures (Interventional Radiology). Vascular Interventional Radiology is used to treat vascular (arteries and veins) issues as well as non-vascular pathologies. Technologists work closely with Radiologists and the VI team to navigate many types of procedures.

Vascular Interventional Radiology is an elective option available within the CT specialization, thereby creating additional ARRT credentialing and employment opportunities for graduates upon completion.

Careers

As technologist responsibilities are increasing, job prospects are very good, given the expanded range of examinations that are performed and the increased speed of the scanners. Many of the SHP graduates are employed at MD Anderson or at several of the program's affiliates. Graduates of the Diagnostic Imaging program are well prepared to meet the challenge since they have received their education from the SHP, which is part of the world-renowned University of Texas MD Anderson Cancer Center.

Clinical education

Students in the CT or CT/VI specialization will participate in clinical internships under the supervision of highly experienced clinical faculty. This guided clinical experience occurs within MD Anderson and at a wide variety of affiliate sites that include: a hospital specializing in pediatrics, a general hospital designated as a Level One trauma center, and a regional Veterans' Medical Center primary health care provider that serves almost 130,000 veterans in southeast Texas.

CURRENT AFFILIATIONS

CHI St. Luke's Health-Baylor St. Luke's Medical Center Houston Methodist Hospital - Texas Medical Center, West Memorial Hermann Hospital - Texas Medical Center, Southeast, Southwest Memorial Hermann Surgical Hospital First Colony Michael E. DeBakey VA Medical Center Texas A&M University College of Veterinary Medicine - College Station Texas Children's Hospital - Texas Medical Center The University of Texas MD Anderson Cancer Center League City

Prerequisites

for DI specialization in CT or CT/VI

Minimum of 58 semester credit hours (SCH) that include:

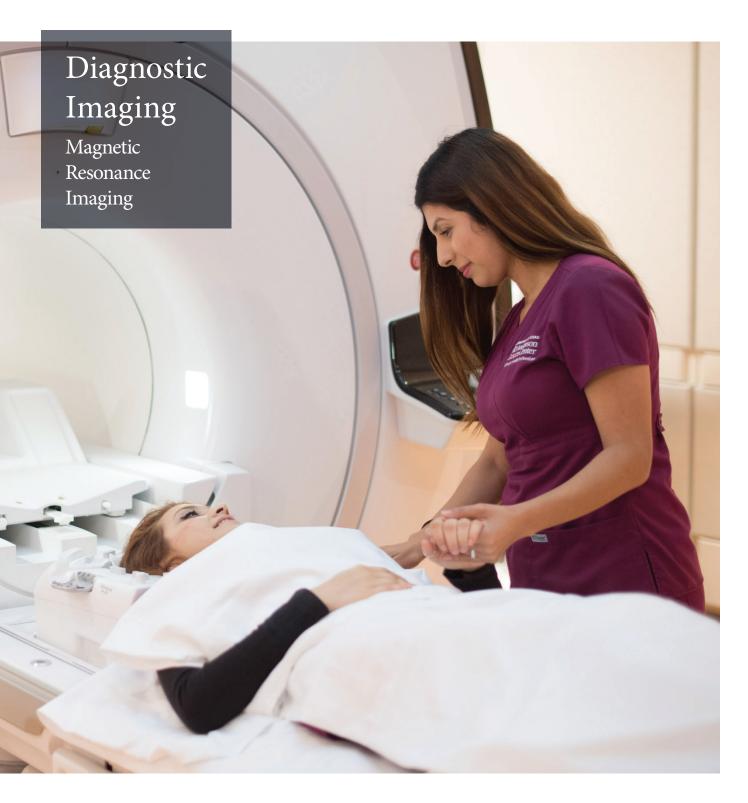
TEXAS CORE CURRICULUM (42 SCH) AND ADDITIONAL 16 SCH

4 SCH IN ANATOMY AND PHYSIOLOGY I

Notes:

CT applicants must be board certified by ARRT or NMTCB.

CT/VI applicants must be board certified by ARRT in radiography.



Magnetic Resonance Imaging

Magnetic Resonance Imaging (MRI) uses magnetic fields and radio waves to create detailed images of the body for diagnosing several types of pathologies. The MRI program at The University of Texas MD Anderson Cancer Center combines didactic and clinical education experiences to provide students with the knowledge and skills to prepare them to take the Magnetic Resonance credentialing examination from the American Registry of Radiologic Technologists (ARRT).

Careers

As technologist responsibilities are increasing, job prospects are very good, given the expanded range of examinations that are performed and the increased speed of the scanners. Many of the SHP graduates are employed at MD Anderson or at several of the program's affiliates. Graduates of the Diagnostic Imaging program are well prepared to meet the challenge since they have received their education from the SHP, which is part of the world-renowned University of Texas MD Anderson Cancer Center.

Clinical education

Students in the MRI specialization will participate in clinical internships under the supervision of highly experienced clinical faculty. This guided clinical experience occurs within MD Anderson and at a wide variety of affiliate sites that include: a hospital specializing in pediatrics, a general hospital designated as a Level One trauma center, and a regional Veterans' Medical Center primary health care provider that serves almost 130,000 veterans in southeast Texas.

CURRENT AFFILIATIONS

CHI St. Luke's Health-Baylor St. Luke's Medical Center Houston Methodist Hospital - Texas Medical Center, West Memorial Hermann Hospital - Texas Medical Center, Southeast, Southwest Memorial Hermann Surgical Hospital First Colony Memorial MRI and Diagnostic Michael E. DeBakey VA Medical Center Texas A&M University College of Veterinary Medicine - College Station Texas Children's Hospital - Texas Medical Center The University of Texas Health Science Center at Houston The University of Texas MD Anderson Cancer Center - League City, Radiology Outpatient Center, Texas Medical Center, West Houston (imaging and blood work)

Prerequisites

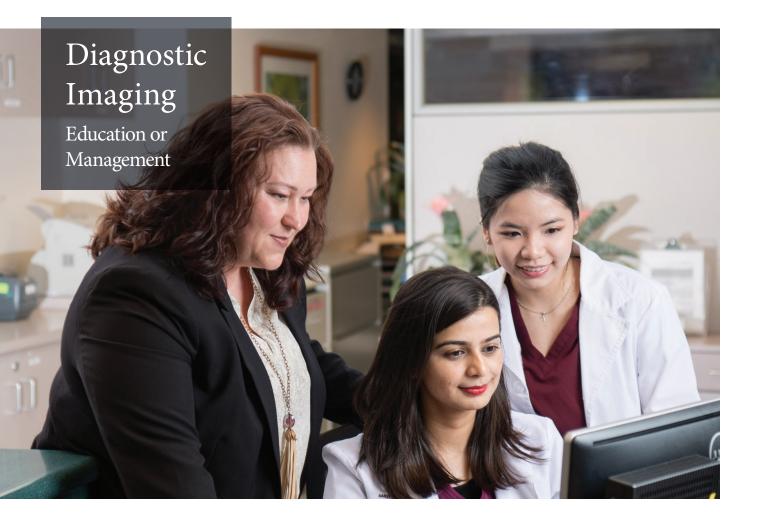
for DI specialization in MRI

Minimum of 58 semester credit hours (SCH) that include:

TEXAS CORE CURRICULUM (42 SCH) AND ADDITIONAL 16 SCH

4 SCH IN ANATOMY AND PHYSIOLOGY I

Note: MRI applicants must be board certified by ARRT, NMTCB or ARDMS.



Education or Management

This program is designed for experienced technologists or sonographers who are aspiring to hold managerial or educational leadership positions in Diagnostic Imaging or other health care-related organizations. The program enhances general management abilities and teaching skills, as well as providing opportunities for developing analytical skills in assessing organizational performance and approaches for improvement.

This program's flexible schedule allows students to complete their degree in as little as 12 months (full time) or 24 months (part time). Nearly 100% of the content is delivered in a hybrid format, allowing students the flexibility to juggle the demands of

family, career and school. Classes meet only three Saturdays a semester. Distance learners may access lectures remotely using a web-based conference platform. This allows for synchronous interactions with the Houston faculty. Students in the program engage in distance-learning activities, including electronic presentations, threaded group discussions, and synchronous interactions with the faculty during class meetings. The Management specialization provides a theoretical foundation for students who plan to take examinations to become a Certified Radiology Administrator (CRA). The courses provide students with a broad emphasis in the five domains of the CRA curriculum. This includes fiscal and operational management, marketing, organizational behavior

and communication.

Careers

Graduates with a specialization of study in education gain employment as instructors in Diagnostic Imaging programs or work as Application Specialist trainers with manufacturers of medical imaging equipment. The Management specialization provides graduates with entry-level opportunities for administrative positions as supervisors or managers in medical imaging facilities.

Student practicum

Students in the Education and Management specializations are given the opportunity to have professional field experiences working in a professional environment under the supervision of experienced faculty. As a result, students are able to integrate the theory and knowledge of course content with the application of principles and practices in a work environment.

FACILITIES FOR PRACTICUM EXPERIENCE

CHI St. Luke's Health-Baylor St. Luke's Medical Center CHI St. Luke's Hospital at The Vintage Houston Methodist Hospital - Texas Medical Center, West Memorial Hermann Hospital - Texas Medical Center, Southeast Memorial Hermann Surgical Hospital First Colony Memorial MRI and Diagnostic Michael E. DeBakey VA Medical Center Texas A&M University - College of Veterinary Medicine - College Station Texas Children's Hospital - Texas Medical Center The University of Texas Health Science Center at Houston The University of Texas MD Anderson Cancer Center - Texas Medical Center, Bellaire (imaging and blood work), West

Prerequisites

for DI specialization in education or management

Minimum of 58 semester credit hours (SCH) that include:

COMPLETION OF THE TEXAS CORE CURRICULUM (42 SCH) AND 16 ADDITIONAL SCH. Total of 58 must include:

4 SCH in Anatomy and Physiology I

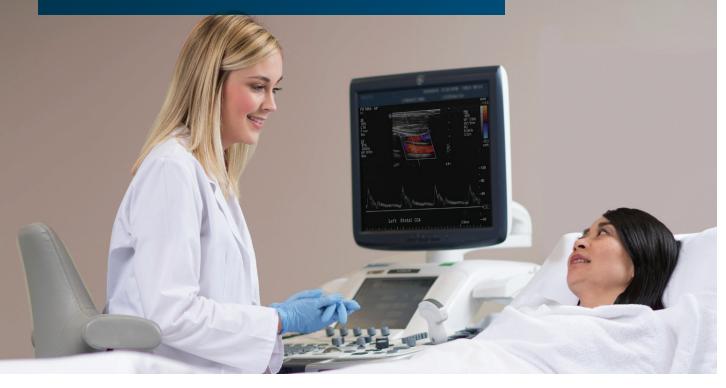
16 SCH electives

Notes:

Applicants must be certified by ARRT, NMTCB, or ARDMS.

Applicants with a minimum of 30 SCH may apply for the part-time option.

Diagnostic Medical Sonography



Diagnostic Medical Sonography is a non-invasive imaging modality that uses high-frequency sound waves to produce a dynamic visual image of the internal organs or tissues in the body including abdominal organs, a developing fetus, male and female reproductive organs and the vascular system.

The Program in Diagnostic Medical Sonography (DMS) is designed to prepare leaders and technologically proficient professionals in the field of Diagnostic Medical Sonography. It emphasizes research and administrative proficiency and the development of skills in scanning and diagnostics. The DMS laboratory is equipped with state-of-the-art sonographic equipment in order to prepare students for current and emerging techniques and protocols, providing students with ample opportunities to apply theoretical knowledge and practice skills within a dedicated and non-intimidating laboratory setting before rotating to the clinical environment. The educational standards of this program are based on the Diagnostic Medical Sonography National Educational Curriculum. Graduates will be eligible for the national registry examination offered by the American Registry of Diagnostic Medical Sonography (ARDMS) once they meet the requirements established by the ARDMS.

Careers

Graduates of this program will have a number of career options as sonographers, supervisors, administrators, educators, researchers, application specialist and sales representatives. Areas of employment include hospitals, clinics, private physicians' offices and industry. Graduates may also choose to work as freelance sonographers for mobile services. Evaluation of the job market and a survey of employers indicate a strong demand for well-trained sonographers.

Clinical education

During a student's tenure in the Diagnostic Medical Sonography program, students develop hands-on proficiency in a unique lab environment using state-of-the-art imaging equipment, including: GE Logic E9, Philips iU22, Zonare and Parks Flow Lab.

The students learn how to operate a variety of sonography equipment before they ever see a patient. During the second semester of the program, the students begin their clinical rotations lasting the remainder of the time they are in the DMS program, completing approximately 1,230 hours of clinical rotations at MD Anderson and affiliated sites. On-site clinical preceptors work closely with the student to help them develop essential scanning skills while rotating through their institution. The clinical preceptors and the SHP faculty monitor and evaluate the students' progress and performance.

CURRENT AFFILIATIONS

CHI St. Luke's Health-Baylor St. Luke's Medical Center Houston Methodist Hospital - Texas Medical Center, West Michael E. DeBakey VA Medical Center Texas Children's Hospital - Texas Medical Center The University of Texas MD Anderson Cancer Center The University of Texas Medical Branch - Galveston, Katy, Sugarland

Prerequisites

for the two-year program

Minimum of 42 semester credit hours (SCH) that include:

TEXAS CORE CURRICULUM (42 SCH) that include:

4 SCH in College Physics including lab

8 SCH in Anatomy and Physiology I and II including labs

Note: Completion of an Associate or Bachelor's degree is recommended, but not required.



Medical Dosimetrists are vital members of the radiation oncology team, working closely with radiation oncologists, medical physicists and radiation therapists to create customized radiation treatment plans designed to target cancer while sparing normal tissue. In order to carry out this work, medical dosimetrists must develop a knowledge base that includes, but is not limited to, human anatomy, clinical disease processes, radiation physics, and computer technology. Medical dosimetrists use multimodality imaging, including CT, MRI and PET scans, to construct three-dimensional treatment plans that will allow the delivery of high doses of radiation to a tumor while minimizing the risk to sensitive surrounding tissues. In the course of their work, medical dosimetrists also contribute to excellence in patient care by participating in quality assurance and cutting edge clinical research.

The Program in Medical Dosimetry prepares students for the technical, theoretical, and psychological aspects of a career in this field. Students acquire the professional skills of dose calculation, computerized treatment design, and quality assurance through intensive education in classroom, laboratory, and clinical settings.

Careers

Medical Dosimetrists are in high demand in hospitals and radiation treatment facilities in the United States. They have a wide range of career options that include: patient care, education, management, medical sales and technical training positions for emerging technology and treatment techniques.

Clinical education

The program in Medical Dosimetry provides students with approximately 1,000 guided clinical rotation hours. This experience builds on the treatment-planning skills mastered in MD Anderson's advanced laboratory and clinical facilities where students are exposed to the latest in treatment planning technology and learn from experienced faculty and clinicians. On-site clinical faculty instruct and mentor students as they participate in treatment planning for conventional radiation therapy, intensity-modulated radiation therapy (IMRT), volumetric-modulated arc therapy (VMAT), proton therapy and brachytherapy. Affiliation sites include the MD Anderson clinical sites within the Texas Medical Center and beyond.

Distance-learning students placed in affiliated clinics beyond MD Anderson in Texas receive their didactic education through synchronous delivery and clinical education under the supervision of clinical staff at these clinics. The distance-learning students will attend the Houston campus for a short period of time.

CURRENT AFFILIATIONS

Greater Houston Area

The University of Texas MD Anderson Cancer Center - Texas Medical Center, League City, Sugar Land, West, The Woodlands The Proton Therapy Center at MD Anderson

Beyond Greater Houston Area sites for distance-learning students

Banner MD Anderson Cancer Center (Gilbert, Sun City, Mesa, and Glendale, AZ) Cooper University Health Care (Camden and Voorhees, NJ) Presbyterian Healthcare Services (Albuquerque and Rio Rancho, NM) Stanford Health Care (Palo Alto, CA) Texas Oncology-Presbyterian Cancer Center Dallas (Dallas, TX)

Prerequisites

for the two-year program

Minimum of 60 semester credit hours (SCH) that include:

TEXAS CORE CURRICULUM (42 SCH) AND ADDITIONAL 18 SCH. Total of 60 must include:

8 SCH in Anatomy and Physiology I and II*

8 SCH in General Physics I and II*

6 SCH in Calculus I and II

*Note: 12 of the above 16 SCH may be satisfied by the Life and Physical Sciences Texas Core course selection.

Radiation Therapy



Radiation Therapists are vital members of the Radiation Oncology team. They specialize in planning and delivering radiation therapy while providing the highest level of safe, accurate and personalized treatment to cancer patients.

The Program in Radiation Therapy offers students a foundational education that allows them to build the professional knowledge, skills and abilities to safely administer radiation. Graduates of our program will have the necessary tools to plan, calculate, deliver and document prescribed doses of radiation.

Our students have the unique opportunity to demonstrate competency in complex radiation treatment techniques and utilize equipment and accessories within the clinical environment. The immersive VERT 3-D radiation therapy treatment simulation allows students to hone their clinical knowledge and skills inside of the classroom. The program combines classroom instruction with clinical experiences that include specialized treatment modalities. Another unique characteristic of our program is the experience in administering proton therapy. Our students gain experience as they rotate through the Proton Therapy Center. The goal of our program is to provide the community with competent radiation therapists who will deliver safe and compassionate care to patients with cancer.

Careers

Radiation therapists are in high demand within the United States and worldwide. They have a wide range of career options that include: education, management, medical sales and technical training positions for emerging technology and treatment techniques.

Clinical education

The program in Radiation Therapy provides students with an incomparable clinical experience. During the approximately 1,700 guided clinical rotation hours, students will learn to work with a wide variety of radiation therapy protocols that use the latest technology, including: proton therapy, gamma knife, brachytherapy, stereotactic body radiation therapy and total body irradiation. This range of experience and the volume of patients treated daily ensure that graduates of the program are fully prepared for a career in the field of Radiation Therapy.

CURRENT AFFILIATIONS

Affiliation sites include the MD Anderson clinical sites within the Texas Medical Center and beyond. The program is also offered to distance-learning students through synchronous delivery in Dallas, Texas, Gilbert, Arizona and Albuquerque, New Mexico.

Dallas, TX

Texas Oncology-Presbyterian Cancer Center Dallas

Houston, TX

The University of Texas MD Anderson Cancer Center - Texas Medical Center, League City, Sugar Land, West, The Woodlands The Proton Therapy Center at MD Anderson

Gilbert, AZ Banner MD Anderson Cancer Center

Glendale, AZ Banner MD Anderson Cancer Center

Mesa, AZ Banner MD Anderson Cancer Center

Sun City, AZ Banner MD Anderson Cancer Center

Albuquerque, NM Presbyterian Healthcare Services

Rio Rancho, NM Presbyterian Healthcare Services

Prerequisites

for the two-year program

Minimum of 46 semester credit hours (SCH) that include:

TEXAS CORE CURRICULUM (42 SCH)

8 SCH IN ANATOMY AND PHYSIOLOGY I AND II*

8 SCH IN PHYSICS I AND II (ALGEBRA-BASED)*

3 SCH IN PRECALCULUS

*Note: 12 of the above 16 SCH may be satisfied by the Life and Physical Sciences Core course selection.

Accreditation

The University of Texas MD Anderson Cancer Center is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award baccalaureate, masters, and doctorate degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of MD Anderson Cancer Center.

The School's baccalaureate programs are accredited or approved by nationally recognized agencies, including the:

Commission on Accreditation of Allied Health Education Programs (CAAHEP)

35 E. Wacker Dr., Suite 1970 Chicago, IL 60601 312-553-9355 CAAHEP.org

Southern Association of Colleges and Schools Commission on Colleges (SACSCOC)

1866 Southern Ln. Decatur, GA 30033-4097 404-679-4501 Fax: 404-679-4558 SACSCOC.org

Joint Review Committee on Education in Radiologic Technology (JRCERT)

20 W. Wacker Dr., Suite 2850 Chicago, IL, 60606 312-704-5300 JRCERT.org

National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)

5600 N. River Road, Suite 720 Rosemont, IL 60018 773-714-8880 NAACLS.org

Graduates of the Diagnostic Medical Sonography program are eligible to take the national registry examination offered by the American Registry of Diagnostic Medical Sonographers (ARDMS) under category 3A, ARDMS.org

School of Health Professions

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MDAnderson.org/SHP



Making Cancer History®

Financial Aid 713-500-3860 www.UTH.edu/sfs

Housing 713-500-8444 www.UTH.edu/housing Registrar 713-500-3361 www.UTH.edu/registrar

