



Medical students at UTMB have the opportunity to earn the **Master of Science degree** through a five-year dual degree program. More physicians with such training are needed to translate basic science advances into new therapies and improved methods of disease prevention.

Preparing a New Generation of Physician Scientists for Careers in Clinical & Translational Research

The M.S. degree is offered by the graduate school's **Clinical Science Program**, and provides formal, in-depth clinical research training in one of four tracks. The Clinical Science Graduate Program is part of the education program of the Institute for Translational Sciences (ITS), which is partially supported by a Clinical and Translational Science Award (UL1RR029876) from the National Institutes of Health.



ITS: Analysis of renal diseases and genes in a 3D immersive CAVE

The **dual degree plan** combines one year of graduate school with the four years of medical education. The recommended plan is for the graduate school year to be scheduled between years 3 and 4 of medical school, with three terms (one year) of graduate school enrollment starting in late August (School of Medicine period 3). USMLE Step II examinations must be completed before graduate school enrollment begins.

Students admitted to the program are enrolled in the Graduate School of Biomedical Sciences until graduation.

More details about the Clinical Science Graduate Program are found at: <http://pmch.utmb.edu/education/clinicalscience/clinicalsciencedisc.aspx>

MS Degree Requirements

- 36 total credit hours
- Required courses
 - Biostatistics
 - Introduction to Epidemiology
 - Prevention & Public Health
 - Research Methods
 - Ethics of Science
- Prescribed Specialized courses
 - Directly applicable to major area of study
- Elective courses
- Thesis (research) project

During the M.S. degree year, students complete required courses in the core knowledge areas of clinical science—biostatistics, epidemiology, prevention & public health, research methods and ethics—and additional required courses directly applicable to major area of study along with elective courses and a clinical science research thesis.

The Clinical Science Graduate Program is one of three graduate programs administered by the Department of Preventive Medicine & Community Health.

MD-MS Dual Degree Program

UTMB offers this dual degree program for medical students interested in careers in clinical and translational research. The Clinical Science Graduate Program offers specialized tracks in clinical investigation, health services research and health informatics.

Clinical Investigation Track emphasizes patient-oriented research, which is often laboratory-based, and involves direct interactions with research subjects. This includes research into basic mechanisms of disease and clinical trials of new therapies.

Health Services Research Track emphasizes health care delivery and outcomes research. This research often uses epidemiological methods or large existing databases.

Health Informatics Track emphasizes health care information and its associated technologies. This research often uses large databases related to health care and health information technology.

Application for the M.S. in Clinical Science is through the Graduate School of Biomedical Sciences (GSBS). Applications must be completed before April 1 for a fall enrollment. To apply, medical students must complete the GSBS application, provide three letters of reference, submit a current UTMB transcript, and pay the appropriate application fee. The GSBS online application process can be accessed at:

www.utmb.edu/onlineapp

The application essay and reference letters should specifically address the student's interest in clinical science and ability to complete the degree. Additional information regarding these letters may be found on the PMCH website under Clinical Science application at:

<http://pmch.utmb.edu/education/gradprogram/gradapplicationprocess.aspx>

Students may apply for support for Year 4 from a variety of sources. Program staff will help in identifying such sources prior to admission to the program.



A **Thesis** committee is formed during the spring or summer of year 4. Students prepare a thesis proposal, enter candidacy, and then complete their research project and thesis. This is expected to be a significant contribution to scientific knowledge that is defended by the student and approved by the thesis committee and the graduate school prior to graduation. The research should also result in one or more publications before or after graduation.



Contact Information

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