CLINICAL TRANSLATIONAL SCIENCE (CTS)

Explanation of Course Numbers

- Courses in the 1000s are primarily introductory undergraduate courses
- Those in the 2000s to 4000s are upper-level undergraduate courses that can also be taken for graduate credit with permission and additional work assigned
- Those in the 6000s and 8000s are for master's, doctoral, and professional-level students
- The 6000s are open to advanced undergraduate students with approval of the instructor and the dean or advising office

CTS 6112. Research and Writing Seminar. 3 Credits.
Designed to improve competency in scientific and research writing for proposals and manuscripts.

CTS 6201. Critical Analysis in Clinical Research. 3 Credits.
Analyses of the essential components of clinical research including good clinical practice, human subject protection, study design, and trials administration.

CTS 6202. Research Methods for Clinical and Translational Research. 2 Credits.
The design and conduct of clinical research with an emphasis on the types of studies most relevant to health care professionals.

CTS 6203. Legal and Ethical Issues in Clinical and Translational Research. 1 Credit.
Legal and ethical issues that arise in the design and conduct of clinical and translational research.

CTS 6205. Clinical Investigations. 3 Credits.
Analysis and evaluation of study design strategies and current practices for major therapeutic areas of clinical research, including vaccine development, cardiovascular disease, anti-infectives, CNS, and others.

CTS 6246. Clinical and Translational Research Capstone Project. 3 Credits.
Application of the knowledge gained during the course of the program through the completion of a mentored independent research project.

CTS 6261. Foundations in Clinical and Translational Research. 3 Credits.
Overview and analysis of translational research principles and practice; analysis and integration of basic clinical community health and health services research concepts as applied to key diseases.

CTS 6265. Grantsmanship in Translational Health Science. 3 Credits.
Writing grant proposals to fund clinical research, with an emphasis on translational research proposals; persuasive communication, conceptually-based hypotheses, and research methods and the grant application process.

CTS 6266. Grant Writing for the Individual Investigator. 3 Credits.
The complete process of research grant proposal development; organizing collaborators, mentors and advisory committees, and negotiating those relationships. Designed for early independent investigators (MD/DO, EdD, PhD, or other terminal degree) who are prepared to develop a grant for submission.

CTS 6273. Bioinformatics for Genomics. 3 Credits.
Bioinformatics tools for different analytical situations; strengths and limitations of the most common bioinformatics strategies. Generalizing acquired knowledge and its underlying principles and techniques to other types of big data applications for the purpose of interpretation of results. Same As: HSCI 6273.

CTS 6275. Transdisciplinary Research Proposal. 3 Credits.
Integration of the competencies acquired throughout the program. Development and submission of a transdisciplinary research proposal that responds to a call for proposals from an external sponsor, such as the National Institutes of Health.

CTS 6285. Collaboration and Team Science in Practice and Research. 3 Credits.
Approaching health, technology, social, and environmental problems with cross-disciplinary engagement and collaboration. Foundational and practical principles and their impact on collaborative and team science engagements. Credit cannot be earned for this course and HSCI 6285.

CTS 6286. Leadership, Professionalism, and Team Science in Clinical and Translational Research. 3 Credits.
The principles and practice of leadership, professionalism, and teamwork as it relates to clinical and translational research focusing on collaboration, communication, and health equity. Prerequisites: Students should have foundational knowledge related to research conducted by a clinical translational research (CTR) team and proficiency in the skills needed to conduct research.