Clinical and Translational Science (CTS) is a framework that helps us understand and develop new approaches to improving human health by linking basic biology, clinical medicine and community health. CTS students learn to design, execute and report studies of how biologic and non-biologic aspects of health care interact to influence individuals and populations. The programs provide individuals with diverse backgrounds the opportunity to work with faculty from many disciplines and offer an Educational and Career Development Program to prepare them for roles as important and productive contributors to CTS.

DEGREES

- Clinical and Translational Science CGS (http://catalogue.uvm.edu/graduate/clinicaltranslational/clinicalandtranslationalsciencecgs/)
- Clinical and Translational Science M.S. (http://catalogue.uvm.edu/graduate/clinicaltranslational/clinicalandtranslationalsciencecms/)
- Clinical and Translational Science Ph.D. (http://catalogue.uvm.edu/graduate/clinicaltranslational/clinicalandtranslationalsciencephd/)

FACULTY

Callas, Peter W.; Research Associate Professor, Department of Mathematics and Statistics; PHD, University of Massachusetts Amherst
Colgate, Ross; Assistant Professor, Department of Microbiology and Molecular Genetics; PHD, University of Vermont
Kennedy, Amanda G.; Professor, Department of Medicine-General Internal Medicine Research; PHARMD, Northeastern University
Littenberg, Benjamin; Professor, Department of Medicine-General Internal Medicine; MD, Case Western Reserve University
MacLean, Charles Duncan; Professor, Department of Medicine-General Internal Medicine Research; MD, McGill University
Pinckney, Richard G.; Associate Professor, Department of Medicine-General Internal Medicine; MD, SUNY Buffalo
Rubin, Alan Saul; Associate Professor Emeritus, Department of Medicine-General Internal Medicine; MD, New York University
van Eeghen, Constance O.; Assistant Professor, Department of Medicine-General Internal Medicine; DRPH, University of North Carolina Chapel Hill

Courses

CTS 301. Design Clin&Translational Res. 3 Credits.
Seminar emphasizing the skills for designing and executing clinical and translational research. Prerequisite: Graduate standing, or Instructor permission.

CTS 302. Quality in Healthcare. 3 Credits.
Introduces students to the principles and practices of health care quality and quality improvement. Principles in the design and management of continual improvement activities will be presented and applied. Prerequisite: Graduate standing. Cross-listed with: GRNS 328.

CTS 307. Cell to Society. 3 Credits.
A seminar that addresses a medical issue from molecule to market. By the end of the seminar, students will understand and appreciate the full range of translational science. A theme is selected and announced each year. Prerequisite: Graduate standing or Instructor permission.

CTS 310. Conduct Clin&Translational Res. 3 Credits.
Seminar emphasizing the ethics and mechanics of clinical and translational research. Pre/co-requisite: Prerequisite: Graduate standing, or Instructor permission.

CTS 315. Report Clin&Translational Res. 3 Credits.
Seminar emphasizing communication skills for writing, editing and presenting science. Pre/co-requisite: Prerequisite: Graduate standing, or Instructor permission.

CTS 320. Analyze Clin&Translational Res. 3 Credits.
Seminar emphasizing basic and analytical skills for clinical and translational research. Pre/co-requisites: Prerequisite: Graduate standing, CTS 320, or Instructor permission.

CTS 325. Multi Analysis Clin&Trans Res. 3 Credits.
Introduction to multivariate regression; models that account for effects of multiple predictors on a single outcome, including linear and logistic regression and survival analysis. Prerequisite: Graduate standing, CTS 320, or Instructor permission.

CTS 385. Independent Study in CTS. 1-6 Credits.
Individual work on a topic selected by student in consultation with Faculty member. The independent study may involve original research, project, and readings with conferences and will provide specialized knowledge relating to an area in which an appropriate course is not offered. Prerequisite: Approval from Program Advisor.

CTS 390. Internship. 1-18 Credits.
On-site supervised work experience combined with a structured academic learning plan directed by a faculty member or a faculty-staff team in which a faculty member is the instructor of record, for which academic credit is awarded. Offered at department discretion.

CTS 391. Master's Thesis Research. 1-18 Credits.
Master's Thesis Research.

CTS 392. Master's Research Internship. 1-6 Credits.
Requirement for the Master's in Clinical and Translational Science Research Management; includes experiential education in a research laboratory under the direction of a Research Mentor.
CTS 394. Independent Graduate Research. 1-18 Credits.
Graduate student work on individual or small team research projects under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

CTS 395. Advanced Special Topics. 1-18 Credits.
Special topics in Clinical and Translational Research. Prerequisite: Graduate standing, or Instructor permission.

CTS 490. Internship. 1-18 Credits.
On-site supervised work experience combined with a structured academic learning plan directed by a faculty member or a faculty-staff team in which a faculty member is the instructor of record, for which academic credit is awarded. Offered at department discretion.

CTS 491. Doctoral Dissertation Research. 1-18 Credits.
Doctoral Dissertation Research.

CTS 493. Independent Study. 1-18 Credits.
A course which is tailored to fit the interests of a specific student, which occurs outside the traditional classroom/laboratory setting under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

CTS 494. Independent Graduate Research. 1-18 Credits.
Graduate student work on individual or small team research projects under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

CTS 496. Advanced Special Topics. 1-18 Credits.
See Schedule of Courses for specific titles.