2025 CTSC Career Enhancement Application

The Clinical and Translational Education Program (CTEP) offers the Career Enhancement (CE) track to allow enrollment in specific didactic clinical and translational investigation courses to fulfill applicants' self-identified educational needs. When enrolling in this track, you will earn course credit and have a grade recorded on an official WCGS transcript. You are expected to have at least an 80% attendance rate and fulfill all course requirements. **We do not allow trainees to audit courses**.

Trainees who wish to pursue additional training may do so once matriculated into either the Advanced Certificate or Master's Degree in Clinical and Translational Investigation Programs. Please note, failing to complete coursework or withdrawing from a course without giving written notification to the CTSC Education Program office will result in a grade of 'F' on your academic transcript and ineligibility for registration the following semester.

TO START YOUR APPLICATION PROCESS,
Click here to Initiate a Notification of Intent

Then, to complete your submission please login to the Electronic Protocol Authoring and Review System (ePAR) and refer to the Application Instructions and checklist below

1. **Trainee Application Form** • **Click on** your current citizenship status to proceed. • Personnel and demographic information. Valid institutional or employer issued email is required. • **Please complete the impact question:** briefly discuss why you wish to enroll as a non-matriculated, CE trainee, and how this opportunity would impact your career development, and if applicable, clinical & translational research goals.	☐

2. **Course(s) Requested** – check the "Requested?" Box, click on the "Details of Request" link, click on [add/remove] to make your course selection.
    o Use the **Search** tool to find and select the course(s) you wish to enroll.
    o Finalize your request by checking the "This request is finalized" box.
 Note: You may enroll for a maximum of 6 core course credits and an unlimited number of elective credits over the course of your Career Enhancement track enrollment. However, you are only permitted to register for a maximum of 5 (core and elective) credits per term. **Enrollment in courses selected is not guaranteed and must be approved by the CTSC Education Program.**
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3. **Required Supporting Documents:** Upload as individual PDF files in the order indicated below.
    o **Weill Cornell Graduate School (WCGS) Non-Degree Form:**
      Click on the [More info] link, copy, paste Qualtrics link into your browser. Fill out survey.
      Once survey is completed, save response as a PDF, upload into Supporting Documents.
    o **Career Enhancement Enrollment Contract:**
      Upload the signed and dated downloadable document as a pdf.
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4. **Non-Refundable $175 application processing fee.** Payable by Paypal. **Note**: Graduate & Medical students, and individuals who have previously applied as a Career Enhancement student from a Weill Cornell CTSC consortium institution please email ctsc-education@med.cornell.edu before proceeding to make payment.	☐

Questions? Email: ctsc-education@med.cornell.edu

Weill Cornell Medicine
Clinical & Translational Science Center

A Weill Cornell Medical College Multi-Institutional Consortium with:

Weill Cornell Graduate School of Medical Sciences / New York Presbyterian Hospital / Cornell University, Ithaca / Cornell University Cooperative Extension, New York City / Memorial Sloan-Kettering Cancer Center / Hospital for Special Surgery / Hunter College of the City University of New York / Hunter School of Nursing / Hunter School of Public Health / Hunter Center for the Study of

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Clinical & Translational Investigation Education Program
Fall 2025 Career Enhancement Course Offerings

Core Courses	Instructor (s)	Type	Credits	Dates	Days (Times)	Location
Introduction to Biostatistics in Clinical Research[1] (**CTIV 5019**) **Deadline: 08/13/2025**	Christos	Core	2	Start: 9/3/2025 End: 12/9/2025 **No Class**: 9/24, 11/26	Wednesdays 4:15p – 6p Tuesdays 9/16, 10/21, 11/4, 11/18 & 12/9 4:15p-6:00p	FULLY REMOTE Zoom Link TBA
Genomics Workshop (**CTIV 5014**) **Deadline: 08/13/2025**	Solomon Xiang	Elective	1	Start: 9/3/2025 End: 10/29/2025	Wednesdays 3:45p – 5:15p **10/1: 1:30p-3p** **No Class 9/24**	Room TBA
Foundations of Clinical Research (**CTIV 5012**) **Deadline: 08/13/2025**	Kapadia	Core	3	Start: 9/4/2025 End: 12/11/2025 **No Class:** 10/2, 11/27	Mondays & Thursdays 3:45p – 5:15p **9/22: 1:30p – 3p** Wednesdays 10/22 & 11/19 3:45p – 5:15p	Room TBA
Advanced Seminars in Ethics of Clinical Research (**CTIV 5001**) **Deadline: 09/10/2025**	de Melo-Martin	Elective	1	Start: 9/30/2025 End: 11/4/2025	Tuesdays 3:15p – 5:15p	Room TBA
Science of Team Science (**CTIV 5049**) **Deadline: 09/10/2025**	Bales	Elective	1	Start: 10/6/2025 End: 11/10/2025	Mondays 3:45p – 5:15p	Room TBA
Introduction to R-Programming (**CTIV 5053**) **Deadline: 09/10/2025**	Thomas	Elective	1	Start: 10/9/2025 End: 11/13/2025	Thursdays 3:00p – 5:05p	Room TBA

[1] **Students enrolled in Introduction to Biostatistics will be responsible for purchasing and installing the required software used before the first day of class. More information will be provided closer to the start of class.**

Course Descriptions

Introduction to Biostatistics in Clinical Research: This course is an introduction to the fundamental statistical issues in the design of clinical research studies. Its primary emphasis is on understanding the design and analytic methods of clinical research from a statistical perspective. Lectures and discussions will focus on the following: exploratory data analysis; basic concepts of statistical analysis; construction of hypothesis tests and confidence intervals; the development of statistical methods for analyzing data; development of mathematical models used to relate a response variable to explanatory or descriptive variables; and an introduction to statistical analysis of microarray and genomic studies.

Genomics Workshop: This course is designed to give students an overview of genomics technologies including microarray and next-generation sequencing and their applications in the biomedical field leading to design, analysis and interpretation of microarray and next-generation sequencing experiments. The course will cover all the latest techniques and theories and will be organized by a combination of lecture and practical sessions.

Foundations of Clinical Research: This is a 3-credit, course designed for students interesting in Clinical Research. Course objectives: Evaluate research questions critically; discuss core epidemiological concepts applied in clinical research, including bias and confounding; assess the appropriateness, strengths, and weaknesses of different study designs for answering a variety of clinical research questions; and demonstrate preference for evidence over authority in the evaluation of clinical research literature interventions.

Advanced Seminars in Ethics of Clinical Research: Scientific research influences all of us in various ways. Scientific knowledge transforms our lives and our societies in positive and negative ways. Science informs public policies that affect communities. A scientifically informed public is essential to well-functioning democracies. Moreover, some of us become research subjects and are yet affected by scientific research in even more intimate ways. Scientific research thus raises a variety of ethical challenges. This course explores some of these issues from a philosophical point of view. We will consider broad questions about the role of values in science, scientists' ethical obligations, and researchers' accountability for the societal impacts of scientific research. Our focus will be the biomedical sciences.

Science of Team Science: This course provides students with an overview of the research field of the Science of Team Science, with a focus on the knowledge and skills that support effective scientific collaboration. Topics include identifying collaborators, working with individuals from different disciplines, conflict prevention and management, negotiating funding and co-authorship, and evidence-based strategies for effective team leadership. The course covers considerations for working with geographically distributed collaborators, including the use of tools and technologies to support remote collaboration. Students also gain practical working knowledge of three core methodological frameworks employed in the Science of Team Science: bibliometrics, research impact assessment, and social network analysis.

Introduction to R-Programming: This is an elective course for students seeking to gain beginner-level skills in data structures, data manipulation, generating descriptive statistics, and data visualization in the R programming language and environment. Base R as well as tidyverse R coding will be covered. Previous experience with a programming language is not necessary. Applications of skills learned in this course are geared towards clinical research, but these skills are transferrable to many projects outside the scope.
Prerequisites: No prior programming experience required, but some familiarity working with data in clinical research is useful.