



# Master of Science in Clinical Investigation

The Graduate School, Northwestern University

Sponsored by Northwestern University Clinical & Translational Sciences Institute

# NUCATS Overview

## What is NUCATS?

- The Northwestern University Clinical and Translational Sciences Institute (NUCATS) is dedicated to accelerating research discoveries into improved health outcomes.
- NUCATS provides comprehensive resources, infrastructure, and expertise to support researchers at every stage of their work.



Facilitate Clinical &  
Translational  
Research



Support  
Workforce  
Development



Promote  
Collaboration &  
Innovation



Engage  
with  
Community

# NUCATS Center for Education & Career Development

- The **Center for Education & Career Development (CECD)** is dedicated to providing comprehensive support for the professional growth of both faculty, trainees, and staff.
- The mission is to foster the development of clinical and translational researchers through targeted education, mentorship, and career advancement programs.



**Ravi Kalhan, MD**  
CECD Co-Director



**Laura Rasmussen-Torvik, PhD**  
CECD Co-Director



# Seminars & Workshops

- Good Clinical Practice (GCP)
- Developing & Enhancing Mentoring Relationships
- Taking Responsibility for Responsible Conduct of Research Course
- Galter Library classes
- Navigating the Research Enterprise

## Investigator Development

We can help you navigate the clinical research landscape and become a better investigator through our professional education programs, interactive seminars and workshops, and on-demand resources. We can also connect you to additional offerings available outside of NUCATS to meet your needs.

## Professional Education

- [Master of Science in Clinical Investigation](#)  
Formal training in clinical research for medical residents, fellows, and junior faculty.  
Individual courses available
- [Leadership & Management Strategies for Clinical Investigators !\[\]\(564903337f30b845a5f6979939a95fe6\_img.jpg\)](#)  
A four-day program on research-tested management and leadership skills that can be applied to the business side of science.

## Interactive Seminars & Workshops

- [Taking Responsibility for the Responsible Conduct of Research](#)  
Designed for recipients of NIH or other training awards that require training in Responsible Conduct of Research.
- [Succeeding With Your K Award](#)  
A highly interactive and mutually supportive peer-mentoring seminar series.
- [Good Clinical Practice](#)  
Learn about the international, ethical, and scientific quality standard for designing, conducting, recording, and reporting trials that involve the participation of human subjects.
- [Navigating the Research Enterprise](#)  
A seminar series for early-career faculty and postdoctoral fellows who have protected research time.

# Investigator Development

The **Master of Science in Clinical Investigation (MSCI)**: a part-time graduate program designed to train clinical scientists in essential research techniques, equip them to secure research funding, and deepen their understanding of the complexities of sound clinical research, particularly in translational and epidemiologic studies.

- **Earn a Master's Degree** in Clinical Investigation
  - 8 courses + research project capstone
- **Receive a Certificate** in Clinical and Translational Science (5 courses, 2 required)
- **Ad hoc courses**

# MSCI Administration



- Director: Dr. Leena B. Mithal

- ✓ Director leads curriculum development and revision, admissions, meets with MSCI students biannually to assess their progress in the program, provide external mentorship, ensure proper milestones, and assist with course selection.

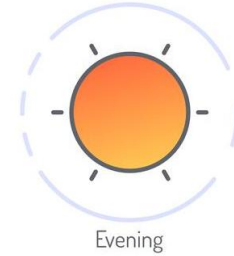


- Program Manager: Adam White

- ✓ Mr. White serves as the students' initial point of contact. Manages coordination of admissions, applies tuition, as well as application and general student advising.
- ✓ Mr. White supports students in communication with the Graduate School, coordinating curriculum, and advising on TGS policies and processes.

# MSCI Program Logistics

- All classes meet in the evening (~5:30-8:30 pm), x1/week, in person
- MSCI students in a chief resident year or fellowship program can complete all requirements in one-two years
- Ad hoc courses or certificate program, whatever meets the needs and interest of student
- Rolling admission, accepting students all four quarters
  - Summer or Fall enrollment are strongly encouraged



## Technical application deadlines

- Fall quarter: July 15
- Winter quarter: October 15
- Spring quarter: January 15
- Summer quarter: April 15

# Admission Requirements

Graduate professional degree or candidate in a health-care related subject (e.g., PhD, MD, DO, PharmD)  
\*case-by-case basis others

Formal application; completed electronically via the Graduate School's online system

Statement of purpose

Two letters of recommendation  
(one from primary research mentor)

Official post-secondary transcripts, sent directly from issuing institution's registrar to the Graduate School



# Degree Requirements

10 credit units: 5 core courses, 3 elective credits, 2 research credits

## **Courses:**

### *Compulsory -*

- Biostatistics for Clinical Investigators I: R bootcamp/Data management (MSCI 321): 1 unit
- Biostatistics for Clinical Investigators II (MSCI 421): 1 unit
- Introduction to Epidemiology (MSCI 322): 1 unit
- Clinical and Translational Strategies to Advance Health Equity (MSCI 440): 1 unit
- Writing/Peer Reviewing Publication (MSCI 445): 1 unit
- Research Project (MSCI 499) 2 units [Manuscript]

### *Elective -*

- Electronic Health Record Data as a Foundation for Clinical Research (MSCI 330): 1 unit
- Clinical Trials (MSCI 335): 1 unit
- Introduction to Omics in Translational Research (MSCI 480): 1 unit

\*can take other electives in other programs under The Graduate School

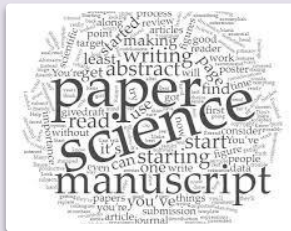
# Course Calendar

Schedule	Fall	Winter	Spring	Summer
New Schedule	Epidemiology - Mon* EHR - Wed	Biostats I: R/Data Management - Thurs* Clinical Trials - Tues	Biostats II - Thurs* Writing - Tues*	Health Equity - Mon* Data: Omics - Wed
Electives pathways	Data Pathway: EHR, Omics, Implementation Science, other advanced Statistics Other: Clinical Trials, Community Engagement			

# Additional Degree Requirements:



All incoming students must have an established research mentor.



A first-authored original research thesis writeup/manuscript is a graduation requirement.



Meet Dr. Leena Mithal, the degree's Director biannually for check-ins.

# Tuition/Funding

- Departmental funding/scholarships
- T32 or other training programs
- DGP program or other graduate school students can take courses
- Self-funded

*Any questions, please direct to Adam White and we can help figure it out.*

# Contact information

## Website and emails

- NUCATS MSCI program website:

<https://www.nucats.northwestern.edu/training/investigator-development/msci/index.html>

Director: Leena B. Mithal, MD MSCI [lmithal@luriechildrens.org](mailto:lmithal@luriechildrens.org)

Program manager: Adam White [adam-white@northwestern.edu](mailto:adam-white@northwestern.edu)