Clinical Investigation, M.S.

Clinical investigation is a field in which teams of health care professionals, biostatisticians, and others imagine, design, and conduct clinical research, and then take discoveries to human or animal patient populations in the health care system or in communities.

The graduate program in clinical investigation (GPCI) offers a 30-credit M.S. degree, 51-credit Ph.D. degree and a 10-credit minor in clinical investigation for doctoral students in other programs. GPCI is housed in the UW Institute for Clinical and Translational Research (ICTR) and is designed in response to a need for clinical research training programs. The ICTR Clinical and Translational Science Award (CTSA) facilitates the UW–Madison’s ability to offer a spectrum of graduate programs in clinical research.

This applied, clinical and translational graduate program complements the areas of clinical research training by the population health graduate program. The focus of GPCI is to provide physicians, clinical scientists, and other health care professionals with the knowledge and skills needed to conduct and translate basic science discoveries into clinical applications through patient (human or animal)–oriented research. The graduate program trains students to help move research toward solutions for patient populations more quickly.

Representatives from the Schools of Medicine and Public Health, Nursing, Pharmacy and Veterinary Medicine, and the College of Engineering met as a task force in 2006 to design the program. All ICTR academic partners are represented in the curriculum. They are joined by partner Marshfield Clinic as members of the faculty executive committee that guides the program.

The curriculum draws from existing courses in the partner schools, and includes new courses developed exclusively for the GPCI. Coursework provides a solid foundation in research methods and analysis, including biostatistics, study design, and ethical conduct. Through electives and a research requirement, students pursue their own areas of specialization in patient-oriented clinical research.

The knowledge and skills acquired while earning a degree in clinical investigation can be applied to jobs in academic institutions; private industry, including pharmaceutical companies, insurers and managed care organizations; government agencies; non-profit organizations; and a range of local to international organizations.

Applicants ideally will have a health professional degree (M.D., DVM, Pharm.D., Ph.D., BSN, BSE, MPT, DPT). Clinical Investigation students are unique among UW–Madison graduate students because they enter the program with a terminal degree (with exceptions) and they are seeking training to directly apply their work with patients.

Full-time and part-time enrollment is available. Most core courses meet at 4 p.m. or later, to accommodate the schedules of working health professionals.

Requirements

Minimum Degree Requirements and Satisfactory Progress
To make progress toward a graduate degree, students must meet the Graduate School Minimum Degree Requirements and Satisfactory Progress (http://guide.wisc.edu/graduate/#policiesandrequirementstext) in addition to the requirements of the program.

Master’s Degrees
M.S.

Minimum Graduate Degree Credit Requirement
34 credits

Minimum Graduate Residence Credit Requirement
16 credits

Minimum Graduate Coursework (50%) Requirement
Half of degree coursework must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university’s Course Guide (http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle).

Prior Coursework Requirements: Graduate Work from Other Institutions
With program approval, an M.S. student’s graduate coursework from other institutions no longer than five years ago may count toward the degree.

Prior Coursework Requirements: UW–Madison Undergraduate
No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

Prior Coursework Requirements: UW–Madison University Special
With program approval, M.S. and Ph.D. students may be allowed to count graduate-level courses that they took as a Special student. Because the program provides flexibility to clinical professionals who frequently begin their graduate careers part time as Special students, the program may allow up to 15 such credits for M.S. and Ph.D. students. Courses taken as a Special student numbered under the 700 level do not count toward the 50% graduate coursework requirement.

Credits Per Term Allowed
12 credits

Program-Specific Courses Required
All M.S. students are required to complete 6 elective credits.

Overall Graduate GPA Requirement
3.00 GPA required.
OTHER GRADE REQUIREMENTS
Students must earn a B or above in all core curriculum coursework.

PROBATION POLICY
The status of a student can be one of three options:

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE
M.S. students select their faculty advising (degree) committees by the end of the first semester in the program. Students and the advisors who sign the form are asked to meet annually or more.

ASSESSMENTS AND EXAMINATIONS
Defense of M.S. thesis required. The thesis is submitted in writing to the degree committee two weeks prior to the defense date; the thesis is defended verbally during the defense meeting.

TIME CONSTRAINTS
Master’s degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

LANGUAGE REQUIREMENTS
No language requirements.

ADMISSIONS
The program accepts applications each February 1 for the M.S. and Ph.D. for the fall term only. Exceptions for spring admission are made rarely and only if the applicant has taken fall prerequisite courses.

The faculty executive committee for the program considers all aspects of each application. The applicant must meet the minimum requirements of the Graduate School plus those of the program, listed here:

• Have a focused area of interest in patient-oriented clinical research and a passion for continuing in a career in patient-oriented research
• Ideally have a health professional degree (M.D., DVM, Pharm.D., Ph.D., BSN, BSE, MPT, DPT).
• Have GRE scores if the applicant does not have a graduate or medical professional degree from a U.S. institution
• Identify a primary advisor to mentor and support the applicant throughout graduate study.

Acceptance into the program will depend in part on identification of a research program that aligns with a student’s research interests and career goals, a student’s fit with the program and likelihood of successfully completing a graduate degree. Acceptance into the program does not assure funding. Identification of a faculty advisor and research area of study is a key consideration in the admissions process but does not guarantee admission.

LEARNING OUTCOMES

KNOWLEDGE AND SKILLS
As an active scholarly participant in a multidisciplinary research team, conduct research projects that:

• Lead to translation of research among the laboratory, clinic and population through technological or systems innovations, including but not limited to drug therapies, medical devices, biological materials, clinical processes, and/or behavioral interventions.
• Are appropriately patient-oriented.
• Draw on the expertise of collaborators in multiple disciplines.
• Integrate clinical and translational science across multiple departments, schools and colleges, clinical and research institutes, and healthcare delivery organizations.
• Determine when it is appropriate to use a patient-oriented research design to investigate a translational clinical problem.
• Understand the principles of multidisciplinary patient-oriented clinical research protocols.
• Analyze, interpret and report research findings of clinical studies through peer-reviewed scientific channels and to a lay audience.

PROFESSIONAL CONDUCT

• Apply and foster professional, ethical and responsible conduct of clinical research.

PEOPLE

Faculty: Adams, Asthana, Barrett, Benca, Carnes, Chappell, Coen, Connor, DeMets, Dempsey, Doepfer, Drezner, Emborg, Fowler, Gangnon, Gern, Gumperz, Heiderscheit, Ikonomidou, Iskandar, Jackson, Jarjour, Kahl, Keely, Kennedy, Kent, Kim, Li, Liu, Mathur, Mendonca, O’Connor, Page, Pearce, Pyle, Rabago, Raval, Reeder, Safdar, Sheibani, Smith, Sondel, Sorkness, Suresh, Thibeault, Wald