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. 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 M.S. program trains students to help move research toward solutions for patient populations more quickly.

Applicants ideally 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 courses meet at 4 p.m. or later, to accommodate the schedules of working health professionals.

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.

Representatives from the Schools of Medicine and Public Health, Nursing, Pharmacy and Veterinary Medicine, and the College of Engineering gathered in 2006 and designed the program. They are joined by partner Marshfield Clinic as members of the faculty executive committee that guides the program.

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 sciences, nursing, and other graduate programs.

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.

### ADMISSIONS

Please consult the table below for key information about this degree program’s admissions requirements. The program may have more detailed admissions requirements, which can be found below the table or on the program’s website. Graduate admissions is a two-step process between academic programs and the Graduate School. Applicants must meet the minimum requirements.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Deadline</td>
<td>February 1</td>
</tr>
<tr>
<td>Spring Deadline</td>
<td>The program does not admit in the spring.</td>
</tr>
<tr>
<td>Summer Deadline</td>
<td>The program does not admit in the summer.</td>
</tr>
<tr>
<td>GRE (Graduate Record Examinations)</td>
<td>May be required in certain cases; consult program.</td>
</tr>
<tr>
<td>English Proficiency Test</td>
<td>Every applicant whose native language is not English or whose undergraduate instruction was not in English must provide an English proficiency test score and meet the Graduate School minimum requirements.</td>
</tr>
<tr>
<td>Other Test (e.g., GMAT, MCAT)</td>
<td>n/a</td>
</tr>
<tr>
<td>Letters of Recommendation Required</td>
<td>3</td>
</tr>
</tbody>
</table>

The program accepts applications each February 1 for the M.S. 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. Identification of a faculty advisor and research area of study is a key consideration in the admissions process but does not guarantee admission.

Acceptance into the program does not assure funding.

### FUNDING

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.
REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (http://guide.wisc.edu/graduate/#policiesandrequirements,text), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face Evening/Weekend Online Hybrid Accelerated
Yes Yes No Yes Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Requirements Detail

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 15 credits

Minimum Graduate Coursework 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 (https://registrar.wisc.edu/course-guide/).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Students must earn a B or above in all core curriculum coursework.

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.

Language

No language requirements.

REQUIRED COURSES

Depending on which ethics course is chosen, 30–31 credits are required to earn the M.S. Below is a list of required courses and research requirements.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>B M I/STAT 541</td>
<td>Introduction to Biostatistics</td>
<td>3</td>
</tr>
<tr>
<td>B M I 699</td>
<td>Independent Study (Topic: Introduction to Biostatistics)</td>
<td></td>
</tr>
<tr>
<td>STAT/F&amp;W ECOL/HORT 571</td>
<td>Statistical Methods for Bioscience I</td>
<td></td>
</tr>
<tr>
<td>FAM MED 701</td>
<td>Perspectives in Multidisciplinary Clinical &amp; Translational Research</td>
<td>2</td>
</tr>
<tr>
<td>POP HLTH/SOC 797</td>
<td>Introduction to Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>MED HIST 545</td>
<td>Ethical and Regulatory Issues in Clinical Investigation</td>
<td></td>
</tr>
<tr>
<td>PHARMACY 800</td>
<td>Research Ethics: Scientific Integrity and the Responsible Conduct of Research</td>
<td></td>
</tr>
<tr>
<td>SURG SCI 812</td>
<td>Research Ethics and Career Development</td>
<td></td>
</tr>
<tr>
<td>OBS&amp;GYN 955</td>
<td>Responsible Conduct of Research for Biomedical Graduate Students</td>
<td></td>
</tr>
<tr>
<td>NURSING 802</td>
<td>Ethics and the Responsible Conduct of Research</td>
<td></td>
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<tr>
<td>ONCOLOGY 675</td>
<td>Advanced or Special Topics in Cancer Research</td>
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<tr>
<td>B M I/STAT 741</td>
<td>Survival Analysis Theory and Methods</td>
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<tr>
<td>NURSING 804</td>
<td>Advanced Qualitative Design and Methods</td>
<td></td>
</tr>
<tr>
<td>SOC WORK/URB R PL 721</td>
<td>Methods of Planning Analysis</td>
<td></td>
</tr>
<tr>
<td>B M I/STAT 542</td>
<td>Introduction to Clinical Trials I</td>
<td>3</td>
</tr>
<tr>
<td>B M I 544</td>
<td>Introduction to Clinical Trials II</td>
<td>3</td>
</tr>
<tr>
<td>NURSING/MEDICINE/POP HLTH 705</td>
<td>Seminar in Interdisciplinary Clinical Research Evidence</td>
<td>2</td>
</tr>
<tr>
<td>B M I 699</td>
<td>Independent Study (Topic: Patient-Oriented Research Presentation Skills Seminar)</td>
<td>1</td>
</tr>
</tbody>
</table>
Research: Med (or other department) 990 Credits will vary depending on whether the student has taken an Elective course.

Total Credits 30

1 The 1-credit B M I 699 Independent Study is for students with instructor consent who have prior statistics (not biostatistics) coursework.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (https://grad.wisc.edu/acadpolicy) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://ictr.wiscweb.wisc.edu/wp-content/uploads/sites/163/2016/10/GPCIStudentHandbook2017.pdf) is the repository for all of the program’s policies and requirements.

PRIOR COURSEWORK

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.

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

UW–Madison University Special
With program approval, M.S. 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. students. Courses taken as a Special student numbered under the 700 level do not count toward the 50% graduate coursework requirement.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

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 year in the program. Students and the advisors who sign the form are asked to meet annually or more.

CREDITS PER TERM ALLOWED

12 credits

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.

OTHER

Full time Ph.D. students and dual degree students are eligible for NIH funding. Students must obtain a faculty adviser, and write a detailed personal statement that demonstrates working knowledge of clinical and/or translational research. No rotations are offered.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School’s professional development resources (https://grad.wisc.edu/pd) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

See the ICTR website (https://ictr.wisc.edu) for more information.

LEARNING OUTCOMES

1. 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.
3. Draw on the expertise of collaborators in multiple disciplines.
4. Integrate clinical and translational science across multiple departments, schools and colleges, clinical and research institutes, and healthcare delivery organizations.
5. Determine when it is appropriate to use a patient-oriented research design to investigate a translational clinical problem.
6. Understand the principles of multidisciplinary patient-oriented clinical research protocols.
7. Analyze, interpret and report research findings of clinical studies through peer-reviewed scientific channels and to a lay audience.
8. Apply and foster professional, ethical and responsible conduct of clinical research.
Faculty