Master of Science in Clinical Investigation

Program Requirements

Didactic Course Work

All Master of Science in Clinical Investigation (MSCI) scholars must complete 33 credit units of didactic course work, including 16 core credits, 4 credits of MTPCI Research Seminar, at least 6 credits of electives, and variable credits of mentored independent research. For additional information about the specific courses required for each of the concentrations, please visit the MSCI Concentrations webpage. Core courses include the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLNV 513</td>
<td>Designing Outcomes and Clinical Research</td>
<td>3</td>
</tr>
<tr>
<td>CLNV 510</td>
<td>Ethical and Legal Issues in Clinical Research</td>
<td>2</td>
</tr>
<tr>
<td>CLNV 522</td>
<td>Introduction to Statistics for Clinical Research</td>
<td>3</td>
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<tr>
<td>CLNV 524</td>
<td>Intermediate Statistics for the Health Sciences</td>
<td>3</td>
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<tr>
<td>CLNV 528 or CLNV 529</td>
<td>Grantsmanship or Scientific Writing and Publishing</td>
<td>2</td>
</tr>
<tr>
<td>CLNV 589</td>
<td>Advanced Methods for Clinical and Outcomes Research</td>
<td>3</td>
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<tr>
<td></td>
<td>Total Units</td>
<td>16</td>
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Thesis

Scholars will form a thesis committee consisting of three faculty members and meet with that committee at least twice per year. The thesis committee should include the scholar's primary mentor, the MSCI program director, and a third faculty member in a closely related research field. The committee meetings will consist of reviewing the scholar's plan for completing and publishing a research project and manuscript. Scholars will return signed mentorship committee forms to the Clinical Research Training Center (CRTC) by December 1 and May 1. The final approval meeting will consist of a formal 15-minute presentation of the research followed by the committee's discussion of the manuscript. Visit the Thesis Requirement webpage (https://crtc.wustl.edu/thesis-requirement/) for more detail. The thesis must be based on original human research conducted during the period of pursuit of the degree. An alternate entrepreneurial thesis option (https://crtc.wustl.edu/programs/degrees/msci/msci-entrepreneurial-thesis-option/) is also available.

CRTC Seminar

Scholars are required to attend the weekly CRTC Seminar (currently held on Tuesday afternoons) during the fall and spring semesters (mid-August through May). During their first and second years of the program, scholars are required to present research-in-progress once each year. Feedback will be provided by the directors, mentors and peers in attendance. The second week of each month will be dedicated to career development topics. During these seminars, speakers will be invited from outside the MSCI program to present.

Mentors

Developing a successful clinical and translational research career requires strong relationships with mentors and a research team. Each scholar must have a program-approved primary research mentor. This mentor will be the scholar's main source of research supervision and career development. It is expected that scholars will meet weekly with their mentor and that the mentor will be available for consultation and support concerning the scholar’s current projects and future progress. The mentor is expected to provide formal feedback to the scholar at least semiannually. In addition to the scholar’s research mentor, the MSCI program director will serve as a mentor to the scholar to further assist with each scholar’s career development during the program.

Responsible Conduct of Research (RCR)

Scholars are required to complete the Ethical and Legal Issues in Clinical Research (CLNV 510) course during their time in the program as part of their RCR training.

Institutional Review Board (IRB) Approvals

Scholars are required to obtain IRB approval for all research conducted as part of their MSCI degree and to provide documentation of current IRB approvals for their research project(s) to the MSCI program.

Individual Development Plans

MSCI scholars must develop an Individual Development Plan in consultation with their mentors, and they must submit the plan by July 1 each year. The plan should include individual development goals for the next one to five years; career objectives for each goal; research activities/projects that will assist the scholar in meeting the objectives; and an overview of the courses, workshops and other educational/training activities that the scholar plans to pursue. For each objective, the scholar should indicate what individual products (e.g., degrees, publications, presentations, grants) are expected. A timeline should be constructed to display the individual objectives, educational activities, research activities and products.
Career Development Retreat
All MSCI scholars are required to attend the annual retreat hosted by the CRTC. During the late-afternoon event, speakers will highlight topics of relevance to scholars' career development and research.

Research Training Symposium and Poster Session
In October of each year, the Washington University School of Medicine hosts a schoolwide, half-day Research Training Symposium and Poster Session. All MSCI scholars are strongly encouraged to submit an abstract and present a poster at the symposium each year of their appointments. Scholars are given the option to have their research considered for an oral presentation.

Program Evaluation
Scholars are expected to complete required program evaluations twice per year. These evaluations are administered online and mandatory for all scholars. Scholars are also required to complete an exit interview one month prior to completing their degree.

Eligibility
Level of Education
MSCI candidates must either be enrolled in a predoctoral or postdoctoral mentored research program at Washington University School of Medicine or hold a postdoctoral appointment in health science at Washington University or one of the Institute of Clinical and Translational Sciences (ICTS) affiliates.

Citizenship
Eligible applicants must be citizens or noncitizen nationals of the United States, or they must have been lawfully admitted to the United States for permanent residence and have in their possession an Alien Registration Receipt Card (I-151 or I-551) or other legal verification of admission for permanent residence. Individuals on temporary or student visas are eligible provided that they hold a valid U.S. visa and a postdoctoral appointment at Washington University or one of the ICTS affiliates. The MSCI program is unable to sponsor visas. Typically, students who desire to enter the program obtain a visa sponsored through their research department.

Research Project
All applicants must be conducting clinical and translational research. Clinical research is defined as patient-oriented research: research conducted with human subjects or on material of human origin (e.g., tissues, specimens, cognitive phenomena) for which an investigator or colleague directly interacts with human subjects.

Mentor
Applicants must have an established relationship with a senior faculty member prior to beginning the MSCI program. Applicants should look for mentors who match their research interests. They should contact each mentor they are interested in working with directly, stating their interest in the mentor's research and their desire to work with the mentor. Suggested mentors (https://crtc.wustl.edu/people/) can be found on our website. If applicants are having problems finding a mentor, they should contact us.