The University of Rochester School of Medicine and Dentistry offers research-based PhD degrees in 12 different programs, Master’s degrees in 11 programs, and a combined MD/PhD degree. While each of these degree programs offers unique training in the basic or health-related sciences, there are four overarching goals of the graduate education curriculum. These student-learning goals pertain to those pursuing either Masters or PhD degrees.

Mission

To provide graduate students with a strong foundation in basic biomedical and health sciences essential to conducting high caliber research, and professional attitudes and skills needed to become leaders in their chosen field, all with a focus on launching a lifetime of continuous learning.

Program Goals

1) Students will develop knowledge of core concepts and principles of the specific scientific discipline within the chosen program of study.
2) Student will develop research skills to identify an important and timely scientific problem, to design studies to gather data or develop methodology to address this problem, to execute experimental procedures and/or analytical approaches needed to gather the data or assess the methodology, and to interpret the evidence in a sound and objective manner.
3) Students will develop the ability to present results of research to scientific colleagues and the public through oral/audiovisual and written work.
4) Students will be prepared for immediate integration into the professional career for which they have been trained.

Processes and Approaches for Directly/Indirectly Measuring Student Learning

Research in Progress Seminars
This is an annual exercise in which students present the background information, approaches, data gathered, interpretation and future directions of their research project to an audience of peers, near-peers and faculty. Peers and faculty provide feedback to student presenters via written evaluations. These evaluations are shared with the student, the student’s thesis advisory committee and program director.

Qualifying Exams
Students prepare a written research proposal in which they define a specific problem or unanswered question, describe studies that will gather necessary data or develop methodology to address this problem or question, and outline approaches to analyze and interpret the data obtained or to assess the methodology. Required components and criteria for success are provided to students prior to the qualifying exam. The document is evaluated by a faculty committee, which provides written and verbal feedback to the student. In addition, there is an oral defense of the proposal by the student. The faculty committee evaluates the defense and provides verbal and written feedback.
**Thesis Document and Defense**

Students prepare a written dissertation in which they define a specific problem or unanswered question, describe studies conducted to gather necessary data or develop methodology to address this problem or question, describe approaches to analyze and interpret the data obtained or to assess the methodology, and discuss the implications of these findings. Required components and criteria for success are provided to students prior to the thesis defense. The document is evaluated by a faculty committee, which provides written and verbal feedback to the student. The oral defense includes a public seminar and closed-door examination, after which the student receives written and/or verbal feedback.

**Annual Committee Meetings and Evaluations**

This is a thorough graduate program-wide, standardized annual review process that requires each student to meet with their advisory committee at least once a year, generally after their research-in-progress seminar. Through this process, each student receives a progress evaluation by his/her faculty mentor and thesis advisory committee members. The committee evaluates student progress, noting areas of strengths and weaknesses, and makes recommendations for future goals. An evaluation form is completed and submitted to the Senior Associate Dean for Graduate Education. This process also monitors student achievements, such as the receipt of awards, fellowships and contribution to local and national service activities.

**Peer Reviewed Publications**

Students are required to be the lead author on manuscripts that describe their research. This provides internal and external benchmarks of student learning. The internal benchmark comes from the fact that students must work closely with their faculty mentors and scientific colleagues to prepare the paper. The external benchmark stems from the fact that scientific publications undergo rigorous evaluation by experts outside of the University of Rochester community.

**Post-graduation Employment and Scholarly Achievements**

The Office for Graduate Education and Postdoctoral Affairs maintains a graduate program-wide database to track students post-graduation. The database maintains records of post-graduation employment and peer-reviewed publications for all students. The database also contains information regarding awards and other achievements reached during their career.

**Exit Interviews**

The Senior Associate Dean for Graduate Education conducts face-to-face exit interviews with graduating students. During this meeting, the Dean gathers data for improving the graduate student experience and to evaluate program and service effectiveness in preparing graduates for jobs after graduation. This information is de-identified and shared with the Committee on Graduate Studies.

**Use of Evidence**

Data is continually collected at the departmental- and program-level, analyzed, de-identified and reported annually to the Dean and Assessment Liaison. Results are discussed with program leadership and with the Committee on Graduate Studies to inform program improvements. The Committee reviews major findings and determines actions to be taken to further develop and improve student achievement of program outcomes. The Committee also reviews evidence that students are achieving program outcomes. These findings are used in a variety of ways to support course and curriculum
analysis, for requests for resources, in marketing and recruiting of graduate students and in grant applications.

Assessing the Process
The Committee on Graduate Studies is responsible for the periodic review of the collection and use of information for the purpose of improving student learning and the overall program effectiveness in providing the highest quality education possible.