

REQUIREMENTS FOR THE M.S. QUALIFYING EXAMINATION

M.S. Program in Biomedical Sciences

Purpose: The purpose of the M.S. Qualifying Examination (QE) is to assess the student's knowledge of their proposed research project and stimulate the student to think about alternative approaches and/or potential pitfalls. The student is expected to present the hypothesis, specific aims that test the hypothesis, and outline experimental approaches to address the specific aims. The QE serves to test the scientific acumen of the graduate student and to ensure that the proposed project can be completed within 1 to 2 years.

Prerequisites: (1) M.S. students may be required to complete a Preliminary Examination before scheduling their QE. At this time, all MMI students are required to pass their [100 Question Exam](#) (preliminary exam) during the spring semester of their first year and BPG students are required to pass their [Qualifying Exam Questions](#) as part of the M.S. QE. (2) Prior to scheduling of the QE, the Advisory Committee section of the GRAD form and Plan of Study form must be approved and on file in the College of Graduate Studies. These documents should be completed within two weeks after the student joins a faculty mentor's lab.

Scheduling: The first Graduate Advisory Committee meeting should occur within the Spring semester of the student's first year, but certainly no later than early Summer semester of the first year. At this meeting, the topic/goals of the research project should be presented by the student and agreed upon by all committee members. During the advisory committee meeting, a QE date should be set. The M.S. QE must be administered by the end of the summer semester of the first year (before fall semester classes start in August). Should a student need to extend their deadline beyond the end of the summer semester of their first year, the student and major advisor must petition, in writing, to the Associate Dean of COMLS Graduate Programs at least one month prior to the August deadline.

Format: The M.S. QE consists of: (1) A one- to two-page written description of the student's research project, including hypothesis, specific aims, and general details of the research approach. This document should be emailed to all Graduate Advisory Committee members at least one week before the QE; (2) A short presentation [15-20 minutes] highlighting the background, question(s) to be addressed, preliminary data, specific aims, significance, approach, etc. of the student's proposed project; (3) An oral defense of the proposed project with the student's Advisory Committee. The oral defense should be completed within one hour.

The written description and presentation of the student's research project should be developed with and edited by the student's research mentor. As noted above, major goals of the M.S. QE are to determine if the student has the ability to apply knowledge towards the solution of problems that s/he may encounter in her/his professional career, while at the same time ensuring that the student can complete her/his project in a timely manner.

As is true for all academic and scientific projects, plagiarism will not be tolerated. It is important that the student's QE reflect as much as possible her/his own intellectual work including conception, approach, writing, and interpretation. The University of Toledo scans all QE for evidence of plagiarism. Any student found guilty of plagiarizing their QE is subject to immediate dismissal from the graduate program.

The written description and/or presentation may include preliminary data generated by the student (this is not mandatory) or by other sources that support the project's feasibility. Preliminary data that was not obtained/generated by the student must be correctly referenced.

The student's Major Advisor may not serve as chairperson for the oral part of the QE. Another committee member, the Track Director, or the home department Chairperson may serve as chair for the oral part of the exam. The QE chair should be appointed during the initial graduate advisory committee meeting.

A COMLS Graduate Faculty Representative (Associate or Full Professor) must be appointed to attend the oral portion of the QE. The student must first identify the Faculty Representative and submit the faculty's name to the Associate Dean of COMLS Graduate Programs for approval at least 2 weeks before the oral portion of the QE. The

Representative and the oral examination Committee Chair should ensure that the student is treated fairly during the oral exam. In addition, the Representative should ensure that the student's mentor and/or committee members do not answer questions for the student.

The student is not allowed to bring texts, papers, or other materials to the exam. The student is allowed to bring blank paper to the QE to write notes about committee questions, etc. Following (or during) the presentation, the student will be questioned by the committee members. The questions may be directed towards the oral presentation, the written description of the project, and/or probe the breadth and depth of basic knowledge and critical thinking skills of the student.

The student may arrange to have coffee, tea or water for committee members during the exam, but food cannot be brought to the exam by the student who is undergoing the QE.

Grading: Successful passing of the QE requires the majority of the committee to accept: (1) The written description of the project; and (2) Successful oral defense of the project to the committee.

After completion of oral questioning, the committee will vote in the absence of the student to pass or fail the student. A simple majority vote is necessary to pass or fail the student.

If the student fails the oral exam, the student may be re-examined one time. Re-examination may require revision of the content of the written description and its resubmission/approval by the committee and/or a second oral examination. A simple majority vote is necessary to pass or fail the student. If a student fails the exam a second time, she/he will be subject to dismissal from the program.

The Report of the Qualifying Exam form should be completed and signed by all members of the Advisory Committee: <http://www.utoledo.edu/med/grad/biomedical/pdfs/UTCOMLS-QualifyingExam-Form-2017.pdf> The completed form should be sent to the Associate Dean of College of Medicine and Life Sciences Graduate Programs.