

1. Qualifying Examination – Molecular Cell Biology

The purpose of the qualifying examination is twofold. First, the examination will determine if the student has acquired sufficient knowledge and ability to think critically to qualify for candidacy. Second, the exam will provide the student with an opportunity to practice collecting material and preparing a research proposal. All students should inquire about their specific program guidelines. *Please Note:* Molecular Genetics and Molecular Cell Biology Program guidelines differ from the ones below, please see your student coordinator for specific guidelines. *See attached guidelines.*

1.1. Format of the Qualifying Examination

The qualifying examination consists of preparing a written research proposal within a student's general area of interest, following roughly the guidelines for a postdoctoral fellowship application to the NIH (ten-page limit), and giving a brief oral presentation of the proposal to an examining committee. The presentation is followed by questions from the committee about the proposal and about basic concepts and fundamental knowledge relevant to the research proposal and the student's chosen area of study. To ensure that a student is not penalized for pitfalls inherent in a particular experimental field, the examining committee will place greatest emphasis on the student's general knowledge of the area and appropriate background rather than the feasibility of the specific research proposal.

The proposal may concern a topic related to, but not the same as, the student's thesis research. Students should consult the Steering Committee to select a topic. Proposed topics must be submitted to the Steering Committee no less than six (6) to eight (8) weeks prior to the examination (individual program guidelines vary). The deadlines for topic submission are May 15 of the second year for Ph.D. students and June 15 of the first Ph.D. year for MSTP students). *(MCB and DB students complete the qualifying exam in the semester they are not TA'ing). Once the Steering Committee approves a topic, (for MCB students the chair of the committee and students mentor will also approve the topic) it appoints an examining committee and advises the student which areas of background knowledge are likely to be expected by the examining committee. The written proposal should be turned in two weeks before the oral exam. Samples of good qualifying exam proposals will be available to students in the Division Office.

Prior to the examination, a student may solicit input from the examiners, their thesis adviser, or other faculty regarding the reasonableness of the topic, clarity of intent, or grammar and composition. The examining committee may choose not to critique the content of the proposal prior to the examination.

Once the examination is complete, the examining committee must either pass or fail the student. A passing grade may include a recommendation for remedial action but may not be contingent upon such action.

1.2. Consequences of Failing the Qualifying Examination

If the examiners fail the student, separate reports from individual committee members specifying reasons for the failure will be forwarded to the program steering committee for disposition. The steering committee can recommend either that a student retake the examination or that the student not continue to candidacy for a Ph.D. in the Division of Biology and Biomedical Sciences. A decision to dismiss the student or take other action will be made by the steering committee. An examining committee will limit its deliberation and decision to the narrow issue of whether or not the student passes the examination in question. If the student feels that the

action of the steering committee has been incorrect due to a procedural flaw in the examination process, the student may submit a written petition to the Chair of the Programs and Student Affair Committee.

The steering committee may recommend that a student retake the exam. The re-examination must take place within three months of the date of the failed examination. A new examining committee, which may include one or more members from the first committee, will be appointed. The steering committee will decide whether a new proposal should be prepared or the original proposal used again and will give the second examining committee specific instructions on subject areas that should be emphasized in the questioning.

1.3. Timing of the Qualifying Examination

Each student should complete a qualifying examination within his or her chosen program by no later than July 1 of the second year in the program for Ph.D. students (August 31 of the first year for MSTP students). Students are encouraged to undertake the qualifying examination earlier, especially if their teaching assignments are in the Spring. The minimal requirements to take the exam are completion of the two core courses and completion or currently taking one advanced course. Please see your program coordinator for your program's detailed information.

1.4. Qualifying Examination Committees

Each program steering committee will appoint a qualifying examination committee composed of one to three steering committee members. Additionally, ad hoc Division faculty members will be appointed for each student based on the proposed topic and the nominations of the student involved. Names of examiners nominated by the student should be submitted to the Steering Committee with the proposed topic(s) six (6) to eight (8) weeks before the examination (individual program guidelines vary). A student's thesis adviser will not be appointed to the examining committee.

Specific Guidelines for the Molecular Cell Biology Program

The qualifying examination will consist of a written grant proposal (turned in to the qualifying examination committee two weeks prior to the examination date) and a general knowledge portion. The general knowledge examination will be given as a written test to be held the third week after the end of classes in May. The examination will consist of several questions from the two core courses, Fundamentals of Molecular Cell Biology and Nucleic Acids and the advanced elective, Advanced Cell Biology/Biochemistry of Membranes. The students will have 5 hours to take the examination. A student must satisfactorily answer 80% of the questions to be given a passing grade. In case of a failing grade, the student will be allowed to retake the examination in the following summer and will complete it by August of the same year.