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Comprehensive Exam Guidelines

This document is meant to provide some general information about common practices used for comprehensive exams, including what to expect and responsibilities. This is not meant to replace the official policy. We encourage everyone to read the policy as laid out in the [Graduate Student Handbook](#).

Why do we have comprehensive exams at USU Biology

Our policy states the following as the purpose of the comprehensive exams.

MS

- The examination should assess the breadth and depth of the student's knowledge requisite to the student's professional goals.

PhD

- The examinations will be used to probe the breadth and depth of the student's knowledge of his/her area of specialization and of designated areas of knowledge that are requisite to the student's professional goals.
- Examinations will contain questions of a broad, synthetic nature and those more specific in design.

In a 2022 survey, faculty and graduate students identified the following as the top goals for comprehensive exams.

Faculty Results

1. Identify strengths and weaknesses in the student's knowledge of the specialization
2. Identify strengths and weaknesses in science written communication
3. Identify strengths and weaknesses in the student's knowledge of general biology

Student Results

1. Identify strengths and weaknesses in the student's knowledge of the specialization
2. Allow me to designate time to read papers and books that I would not otherwise have had time to read.
3. Identify strengths and weaknesses in science written communication

What students can expect

PhD

The general structure of comprehensive exams for PhD students has two parts:

- 1) A written portion where each committee member provides written questions that the applicant has 8 hours to respond to.

- 2) An oral portion where the student meets with their committee for ~3 hours and each committee member asks a few questions for the student to respond to in-person (or Zoom).

The orals occur within a month of the written portion of the exam and usually within two weeks. While there is no formal policy regarding the transition between written and orals, we recommend the following:

- Once the written portion of the exam is complete, the major advisor circulates all questions and answers to the entire committee.
- Committee members should provide written feedback and/or additional study materials to the student in advance of the oral exam
- While there is no formal vote about whether the student passes or fails the written portion of the exam, the committee may deliberate at the beginning of the oral exam as to whether there are certain areas that require more attention
- Committee members should provide verbal feedback and/or additional study materials to the student after the completion of the oral exam.

We suggest allowing at least one week after feedback is provided for students to prepare for the oral exam.

MS

For Master's students, the exam may be written, oral, or both at the discretion of the Supervisory Committee.

- Once the written portion of the exam is complete, the major advisor circulates all questions and answers to the entire committee.
- Committee members should provide written feedback and/or additional study materials to the student after the completion of the written exam.
- Committee members should provide verbal feedback and/or additional study materials to the student after the completion of the oral exam.
- Committee members should inform the advisor if the student passed their portion of the exam

Structure of the Exam

The **written exams** are typically all done in one week with one committee member's written section answered each day. They may also be extended over a day or weekend break. Writtens may be open book, closed book, or a mix, according to each committee member's instructions. The response time may not exceed 8 hours (PhD) or 4 hours (MS) for each committee

member's questions. If there are extra committee members, they do not all need to participate in the written exam so that the length of the exam is standard for all PhD and MS students.

Oral exams will typically end after 2.5 hours so that the committee has time to discuss the outcome while the student waits outside the room. The student will be notified of the outcome before leaving the oral exam.

Potential Outcomes

The potential outcomes for comprehensive exams are: pass, conditional pass, fail. For MS, majority vote by the committee is necessary for passage of the comprehensive examination. For PhD, two or more dissenting votes results in a failure of the exam.

- If a student **passes**, the advisor notifies the GPC. The student then submits their proposal to advance to candidacy.
- There is no official policy regarding **conditional pass**. However, some committees choose to pass students who underperform in certain sections of the exam, but they may have recommendations for where students should show improvement or growth. For those committees considering a conditional pass, please keep in mind that the policy states a simple majority of committee member votes is needed for a pass. If special circumstances arise during the proctoring of any portion of the exam, decisions on pass/fail can be delayed.
- If a student **fails**, they may elect to retake the examination within six months. Failure to retake the test within the specified time period, or a second failure, results in a recommendation for dismissal of the student from the graduate program.

What topics and material will be covered by the exam?

To make comprehensive exams most useful to students, each student will have an exam tailored to their interests and career development. To establish what topics will be on the exam and how each student should prepare, students should first discuss the exam with their major advisor. Then students should meet with each committee member 1 on 1 to discuss the topics each member will cover. Committee members should provide reading/study materials related to what their questions will cover.

Preparation resources for students:

Meeting with your advisor and committee members individually will provide the best study guides, and committee members can provide feedback or a few mock questions while you are studying, so that you can determine if you are digesting critical information from the readings. Think about how your research fills an important gap in knowledge, and how it fits into the bigger picture/major questions of your field.

Take notes. Establish a note taking system. Some people organize their notes in a spiral notebook, while others use a digital system. Tag each entry with keywords. If you have an open book exam, or if you end up writing a proposal for your written component, these digital systems can be extremely helpful. When you're looking for an article or book during an exam, these tags can save you time.

Practice by thinking of some questions your committee members may ask and performing mock orals with your peers standing in as mock committee members. Saying things out loud is much easier with practice.

Remember that it's okay to say, "I don't know." The oral exam is meant to find out what you know...and what you don't. When you get a question that's beyond your area of knowledge, you might say something like, "I haven't thought about that. If I were to broaden my research to include that, I'd expect to see...." This acknowledges the question and helps you reconnect with your area of expertise.

What committee members are responsible for

Committee members should work out between themselves which topics will be covered by whom. If possible, questions may be distributed and viewed by the full committee before the exam, and adjusted if necessary.