

## Original Research Proposal (ORP) Oral Exam Guidelines

Adopted by the Chemistry Department, February 2009

The ORP Oral Exam allows the student's Advisory Committee to evaluate the following:

- The student's ability to defend the proposal's scientific content against direct interactive questioning.
- The student's academic preparation, scholarly independence, and research productivity.

Administration. Prior to Spring 2010, the ORP Oral Exam is not associated with any course; the exam must only be "passed" in order for the student to proceed in the doctoral program. Beginning in the Spring of 2010, the ORP Oral Exam will be part of CHEM 6914. Consult the CHEM 6914 syllabus for details.

Exam Coverage. The exam covers both the proposal and the student's research progress. Unless the student's Research Director advises otherwise, students should assign equal time attention to these two objectives, while being aware that the Advisory Committee may adjust that balance before or during the exam.

Annual Evaluations. The ORP Oral Exam, especially the research-progress portion, will be considered in the student's Annual Evaluation for the third year of study. The Advisory Committee should complete the required Annual Student Evaluation Form in a separate meeting upon the close of the oral exam.

Committee Attendance. Students should involve all of their Advisory Committee members in the ORP Oral Exam; a minimum of four members must be present. At most one non-Committee (substitute) professor is allowed. If a substitute is used or if a professor is absent from the ORP Oral Exam, the Research Director should send a brief email to the Graduate Program Director explaining the situation.

Choosing an Exam Date. The ORP Oral Exam is **not** scheduled through the Graduate School. Students may schedule the ORP Oral Exam as soon as they have submitted the final draft of their proposal. If an Annual Evaluation meeting is coupled to the ORP Oral Exam, then students need to submit their required evaluation forms two weeks before that meeting. Students must notify the Graduate Program Director of the date, time, and room to be used for the exam as soon as these parameters have been established.

Room Scheduling. Students should schedule the exam room by calling the Chemistry Department office at 231-5391. Get a room with an LCD projector or reserve a projector with the front office staff. It is the student's responsibility to make sure that the projector is functioning and that the laptop can be connected to the LCD projector prior to the exam (rooms do not always contain the needed cables), and that the room can be unlocked and made available for use.

Time Allotted for Exam. Traditionally the Chemistry Department has allowed two hours for the ORP Oral Exam. Because of the extra time (up to 0.5 hours) that professors will need to complete the Annual Evaluations after the exam, each student should consult with his or her Research Director to determine whether a 90-minute exam is to be scheduled (requiring the professors to commit 2 hours), or whether the traditional 120-minute exam is to be scheduled (requiring the professors to commit 2.5 hours).

Refreshments. Students are *not* to bring refreshments to their exams. The Chair of the Advisory Committee may, if he or she wishes, bring refreshments for his or her colleagues.

PowerPoint. Students should prepare their presentations in PowerPoint or similar presentation software. A presentation of approximately 20 slides is suggested. Approximately ten of the slides should contain the main ideas of the student's research proposal, and the other 10 should summarize his or her research progress.

Suggestions for Students. It will be difficult to describe your research proposal using only ten PowerPoint slides. The point of this restriction is to spend less time making a presentation and more time engaged in interactive discussion with your committee. That includes writing things on the dry-erase boards. Make the case for your idea! Start by assuming that your Advisory Committee members have read your proposal, and that collectively they will be aware of its many weaknesses both large and small. Do not waste slides introducing the general subject or describing the literature, unless you absolutely need to establish some key precedent or to show a complex diagram (such as the crystal structure of a protein). Do not try to include large amounts of information into each slide just to reduce their number. Instead, make sure each slide is describing a central idea of your proposal, preferably an idea or a proposed experimental plan that might be controversial with your committee. Remember that you can exert a measure of control over your own exam by intentionally bringing up those parts of your proposal that will lead to discussion. Thoughtful selection of the material that is included in your 10 slides is one of the elements of the exam that your professors will be judging.

The same general strategy applies to the approximately 10 slides that you use to describe your research progress. One or two slides to remind your committee of your overall goals should be sufficient. Focus the rest on major accomplishments and other findings that are the most scientifically interesting and relevant to your dissertation. You may wish to bring up problems that your Advisory Committee might help you solve.

Reminding the Committee. Students should send an email reminder to their Advisory Committee members the day before the exam.

Executing the Exam. ORP Oral Exams are not open to the public. Typically, only the student and the Examining Committee are present, but other faculty members may attend if they wish. However, faculty members who are not members of the Examining Committee should not participate in the Exam. The student's presentation, including all of the interruptions for questions and discussion, should take about 75 minutes (105 minutes if the traditional two-hour exam was scheduled). About half of the exam should be used for the proposal, and the other half should be used for the research update. Then, the Examining Committee should determine the outcome of the exam and discuss that outcome briefly with the student (15 minutes). Then the student should be dismissed, and the professors should convene the Annual Evaluation meeting (ca. 30 minutes).

Annual Evaluation Meeting. The Committee should discuss the student's (self-) Evaluation Form, Student Activities Report, and Research Update. They should then complete the Departmental ORP Exam Result form, and the Annual Student Evaluation Form. (There is no Graduate School card for the ORP Oral Exam.) Afterward the Chair of the Advisory Committee should obtain the student's signature on the Evaluation Form, and then promptly submit all of the forms to the Graduate Coordinator (staff) for filing. Professors should expect that thoughtful discussion of the student's progress and diligent completion of these forms might require about 30 minutes.