

2009/2010

DEPARTMENTAL EXAM GUIDELINES

Questions

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OVERVIEW OF THE EXAM, THE COMMITTEE, AND THE MARCH 19 DEADLINE

The Departmental Exam is an oral exam consisting of a critical analysis of one or more recent journal articles, and possibly questions about the student's research project.

The exam is administered and evaluated by a committee of three faculty: two from the student's research division and one from outside the division. *All three members of the committee continue to serve on the student's Doctoral Committee* (exception: the non-chair, inside-division member is dropped when a student has an adviser from outside the department).

Although students may seek the advice of their research adviser on specific questions about the paper, practice sessions where the student analyzes the paper with a faculty member present are not allowed.

The exam is normally taken in Winter quarter of the student's second year so that students have a chance to complete any recommended or required coursework or TAships in Spring. **The exam must be taken by WEDNESDAY, MARCH 19. Students receive the paper(s) exactly two weeks prior to the exam date.**

Students should start trying to schedule the exam immediately (see below).

Only the Graduate Affairs Committee has authority to grant an extension of the March deadline. *Failure to take the exam by the end of the sixth quarter may be grounds for dismissal.* If a student needs an extension, the adviser should contact Pam, and she will forward the request to Graduate Affairs.

SELECTION OF PAPER

The chair of the exam committee consults with the student's adviser (and co-adviser, if applicable) to select a suitable paper(s) not directly related to the student's proposed thesis research.

DISTRIBUTION OF PAPER

Chair of the committee: Gives the student gets the paper(s) EXACTLY TWO WEEKS before the date of the exam. If the committee chair will be out of town, s/he should make prior arrangements for another faculty to give the paper(s) to the student, and should verify the student knows who the contact will be.

Student: Must be sure to get in touch with the chair to get the assigned paper(s) on time, gives the paper to the rest of the committee 1.5-2 weeks prior to the exam, and gives the PhD Coordinator a hardcopy of the title page(s) of the paper(s) 1.5-2 weeks prior to the exam.

EXAM PREPARATION HINTS FOR STUDENTS

- Read and understand ALL the references in your paper but don't get bogged down. It is more important to discuss things in terms of your past course work than to report what others say with little understanding.
- Practice your presentation in private and before an audience that is encouraged to interrupt with questions. In seminars notice how "experts" present their research, how they respond to questions, and what kinds of questions committee members might ask. *Your adviser may not participate in your practice presentation.*

- Be reassured that you are probably the expert on your paper, since you have devoted more time to it than any member of your Committee. On the other hand, your committee members are usually knowledgeable about the logic of science and about the general chemistry (physics, biology) that underlies your topic. Therefore, it is a wise move to review your past coursework, especially in areas related to your topic and your area of research.
- Some Departmental Exam Committees ask students about how their thesis research is progressing. This discussion may contribute to the evaluation of performance on the Departmental Exam. Therefore, it is advisable to review your ongoing research and future plans so that you can describe these if asked.

ORAL PRESENTATION

The presentation should answer the following questions:

- What was the scientific context of the paper?
- What was the objective of the research?
- What methods and techniques were used to attain the objective?
- What are the results?
- How do the results lead to conclusions?

• *Helpful hints to students: Plan to take 20-30 minutes to present your paper. Get to the point quickly. Avoid irrelevancies. Save details for responses to specific questions that ask for them.*

In examining the assigned research paper(s), students should also consider the following critical questions:

- Is the experimental method sound?
- What explicit or implicit assumptions have been made in interpreting the results? Are they valid?
- Is the reasoning leading from results to conclusions sound?
- Are there alternative interpretations of the results?
- What questions remain unanswered? How would you answer them?

• *Helpful hints to students about answering questions: Think a moment before answering difficult questions. It is permissible to defer answering a question if your presentation will cover that point. An honest "I don't know" is safer than bluffing. Be willing to be led through a derivation or chain of reasoning that isn't obvious to you.*

EVALUATION BY DEPARTMENT EXAM COMMITTEE

The function of the Departmental Exam Committee is to judge performance with respect to the following questions:

- Can the student read and understand the literature in the field?
- Can the student apply the knowledge gained through courses, reading, and seminars to research problems?
- Can the student devise experiments or theoretical projects, interpret the results, and apply available theory in a logical and coherent fashion?

SCHEDULING THE EXAM – Confirm your exam date and reserve your exam room by February 17!

Process

First, students should contact their committee chair to discuss the exam and possible dates and times. Next, they should contact the other committee members about possible dates and times. Schedule two hours for the exam. Sometimes it takes a bit longer. Start scheduling early enough to assure the time limit of [March 19](#) is met. By [February 17](#), we ask that ALL students confirm with their committee the date of the exam.

Dates to Avoid

- *Weekends and holidays should never be scheduled*
- Other dates might be problematic and should be avoided. (a) The large graduate recruitment days. (b) Spring break and ACS meetings week. If you do propose a date in this week, *be sure you tell the faculty* that it is Spring break and ACS week *before* you confirm a date with them.

RESERVING A ROOM AND AUDIOVISUAL NEEDS

At least three weeks before the exam and ***AFTER*** you have coordinated the date and time with all members of the committee, students notify Pam Murphy pmurphy@ucsd.edu . She will oversee reserving a room and emailing exam notices.

All conference rooms used for exams have an overhead projector. **If you need any other equipment**, you need to notify Pam at least two weeks prior to your exam. If you let her know any later, the equipment may not be available.

Room Reservation - review the following and send email to Ph.D. Coordinator (pmurphy@ucsd.edu) with your room preference. Room reservations will be made for you (all but NSB 1205-see contact info below for NSB 1205).

* A/V equipment – Many students bring laptops for their presentations. If you need a laptop (you should check with your lab group on laptop availability), and one is not available through your lab group, include the laptop needs/request in your room request email to me, along with an index to charge the laptop rental and arrangements will be made through campus services.

NSB rooms all have the LCD projector equipment, the Pacific Hall and Urey rooms do not. An LCD is available – see LCD info below. although we have an LCD you could reserve. Students are encouraged to familiarize themselves with the room and equipment well in advance of presentation date. Access to rooms varies depending on building configurations, any questions should go to Chemistry Storeroom, (858) 534-4953.

NSB 3209 or 3211: To reserve, contact Ph.D. Coordinator pmurphy@ucsd.edu
Pick room key up from the Chemistry Stockroom, Urey Hall 1220 (closed 12-1!). There is an LCD projector in these rooms, you need only bring your computer.

Pacific Hall rooms 4500, 4501 or 4502: to reserve, contact Ph.D. Coordinator pmurphy@ucsd.edu. The keypad locks for entry to these rooms (and entry to Pac Hall after hours) is the first 5 digits of your social security number. You can choose to pick up a ‘hardcopy’ key to the room - please see Chemistry Stockroom, or Business Office (closed 12-1pm) Urey Hall Addition 2040). These rooms have overhead and slide projectors, but no LCD or computer. You can reserve use of an LCD through John Lasky (x44953).

Urey Hall rooms 3221 or “Urey Room”: To reserve, contact Ph.D. Coordinator pmurphy@ucsd.edu. Pick room key up from the Chemistry Stockroom, Urey Hall 1220 (closed 12-1pm), or Business Office (closed 12-1pm) Urey Hall Addition 2040. No LCD nor projectors, you can reserve an LCD through John Lasky (x44953).

NSB 1205 - Main level of NSB large lecture room with built in projection/screen capabilities. Contact Dean’s Office of Division of Physical Sciences 534-4786 as my office does not control the reservations for this room.

Need an LCD? – Contact Chemistry Stockroom 4-4953, or 4-0230.

NOTE: LCD projectors in NSB are mounted to ceiling which provides good wide screen visibility (fit to screen); whereas in other halls/rooms when projecting from table the size of the projection is not optimal.