ASSIGNMENT OF ADVISOR

The Director of Graduate Studies will appoint a research advisor at the time the student enters the graduate program. The advisor assists the student in planning the academic program and will start the student on the research phase of the program as soon as feasible. It is considered implicit in all advisor-advisee affiliations that the entering student has the opportunity during the first two semesters in residence to change advisors, providing mutually satisfactory arrangements can be made with all the staff members concerned, particularly where assistantship appointments are involved. The Graduate Advisory Committee may be asked by staff members or by students to assist in such arrangements. Students with program already well under way are advised that changes in the advisor affiliation may result in additional time for degree completion and may jeopardize any previous arrangements for financial assistance.

All MS and PhD students are expected to complete an annual review form. See page 48 for details.

PRELIMINARY EXAM

The Written Preliminary Examination and Oral Preliminary Examination must be passed by every PhD candidate. The purpose of these exams is to demonstrate a comprehensive knowledge of core concepts in Land and Atmospheric Science and within the student's specific subdiscipline; and to assess the student's analytic ability, creativity, and potential for successful completion of the PhD program in LAAS. The student is responsible for completing all Preliminary Exam-related forms and procedures that are required by the Graduate School and by the LAAS graduate program (see http://www.grad.umn.edu/current-students-forms/formsdoctoral). Both the Written and Oral Preliminary Examinations should normally be completed by the end of the student's second year in the program. If you have questions, please contact the LAAS administrator or DGS.

Part A - Written Preliminary Examination

1) Students develop, write and orally defend an original, hypothesis-driven research proposal that:
   - Outlines a series of experimental approaches that will test the validity of the hypothesis.
   - Establishes the scientific context of the proposed research with respect to prior work and the current state of knowledge in the field.
   - Demonstrates knowledge of core information and concepts in their field within Land and Atmospheric Science.

The Written Proposal is an NSF or USDA-style research grant proposal. The proposal must be hypothesis-driven and an original contribution by the student. It cannot be based on one that was supplied by the advisor. The proposal topic should be selected by the student and approved in advance by the exam committee. The proposal must contain an abstract, a brief review of the literature pertinent to the specific question, a detailed description of experiments designed to test the hypothesis, a discussion and interpretation of the anticipated results, a concise statement of the significance of the project and a list of references.

2) The written proposal should be submitted to the examination committee by eight weeks prior to the end of the student's second year in the program.

3) The proposal should be 5-8 single-spaced pages (12 pt font, 1” margins), not including references or figures, and will be distributed to all members of the exam committee. Each member of the exam committee, with the exception of the minor field examiner, will prepare a written critique.

4) Examiners will be asked to comment specifically on the creativity, originality and validity of the proposal and of the experimental approaches proposed to test the postulated hypothesis as well as on the quality of the presentation.
Committee members will NOT be allowed to ask questions during the student's presentation.

4) Following the presentation, committee members will ask questions about the written proposal or topics related to the written proposal. The total time for the presentation and questions from the committee on the proposal will be 45 minutes.

5) For the remainder of the exam, the committee will test the student on breadth of knowledge of fundamental concepts in Land and Atmospheric Sciences.

6) The outcome of the examination, with all committee members present and voting, is recorded in one of three ways: pass, pass with reservations, or fail. The voting proportions necessary for these decisions are as follows: if the committee consists of four members, a favorable verdict for passing consists of either a unanimous vote or a vote of 3-1; if the committee consists of five members, a unanimous vote or a vote of 4-1 is needed; if the committee consists of six members, an unanimous vote or a vote of 5-1 or 4-2 is needed; and if there are seven members, an unanimous vote or a vote of 6-1 or 5-2 is needed. Candidates who do not earn committee votes in these proportions fail the examination. If, to achieve the minimum number of votes to reach a verdict of pass, any vote of pass with reservations is included, then the outcome will be recorded as a pass with reservations. A vote to pass the student with reservations still constitutes a passing vote.

A pass with reservations is appropriate when the student demonstrates overall competence, but is found to be deficient in some specific area. In this case, the student is informed immediately, but the committee is permitted one week in which to convey its reservations to the student in writing, informing the student of the steps that must be taken to remove them. A copy of this letter must be sent to the Graduate School and should accompany the signed Oral Examination Report Form. The committee may require that the student take a specific course to address the deficiency, take a second oral examination confined to that sub-topic, or write a scientific paper on the topic. Any additional requirements are to be completed within 6 weeks of the original oral examination. When the student has satisfied the committee’s reservations, a second letter informing the student and the Graduate School that the reservations have been removed and that the student may proceed toward the degree is also required. Both letters should be written by the committee chair. In the case of a fail vote, the student may, at the discretion of the examining committee, have one opportunity to repeat the oral examination and must obtain either a pass or a pass with reservations to remain in the program. The re-examination must be conducted by the original preliminary oral examining committee, and in no case may the re-examination take place before 10 weeks have passed after the first oral examination. No more than one re-examination is allowed.
PhD Dissertation Proposal Following Successful Completion of PhD Oral Exam

Students who have passed the oral and written PhD preliminary exams should complete a 5 page (single spaced) thesis proposal on their PhD research topic. This proposal should be submitted to the advisor for approval within one semester of completing the PhD preliminary exams. The format of the thesis proposal is flexible, but should include section headings such as Abstract, Introduction and Literature Review, Research Hypotheses, Research Objectives, Research Methodology, and Expected Results. It is no longer necessary to submit a Thesis Degree Proposal form to the Graduate School but does need to be on file in the Department Office.

TIME TO COMPLETION

The maximum amount of time for completion of degrees will be 9 years for an MS student and 5 years from the semester following successful completion of preliminary exams for a PhD student. Students exceeding these time periods will normally be discontinued from the program, unless a time extension is granted by the Graduate School.

Advanced status
Advanced status is a registration option that is advantageous to our students and graduate faculty. It is a one-credit (8333) registration that certifies students as full-time and is a significant savings for the adviser, if on an assistantship.

It is available to MS students the term after:
- a) approved master's Degree Program Form is on file with The Graduate School
- b) all coursework included on the Degree Program Form is complete, with grades posted to the transcript prior to the term of application
- c) if Plan A, the master's thesis credit requirement (10 semester credits of LAAS 8777) has been met
- d) if Plan B, all coursework is complete and only the Plan B project is not graded
- e) Application (http://policy.umn.edu/sites/policy.umn.edu/files/forms/otr194.pdf) has been completed by the DGS and submitted to the GSSP Office by August 15th for fall term and December 15th for spring term.

PhD students are also eligible and should use the form for 8444 (http://policy.umn.edu/sites/policy.umn.edu/files/forms/otr195.pdf) and meet these requirements:
- a) Successfully complete the preliminary written examination.
- b) Successfully complete the preliminary oral examination; signed examination form on file with the Graduate Student Services and Progress (GSSP) Office.
- c) Complete all coursework included on the Degree Program Form, with grades posted to the transcript.
- d) Completed 24 doctoral thesis credits.

FINAL EXAM COMMITTEE

Master’s committees must consist of at least three members, including the adviser/s. All members of the committee and the student must participate in the final examination. It is available to MS students the term after:
- o At least one member must represent a field outside the student’s major field.
- o If the student has a declared minor(s), the outside member(s) must be from the minor field(s).
- o Members cannot satisfy the requirement with respect to more than one field.
- o The adviser (or co-adviser) may serve as chair for the final exam.
- o The adviser must represent the major field and the co-adviser may represent the major field or the outside/minor field

Doctoral committees must consist of at least four members, including the adviser/s. All members of the committee and the candidate must participate in the final oral examination.

- o At least three members (including the adviser) must be from the student’s major field.
- o At least one member must represent a field outside the major
- o If the student has declared a minor, at least one member must represent the minor field.
- o Members cannot satisfy the requirement with respect to more than one field.
- o Committee is not required to include the same members who served on the prelim oral committee.
- o The adviser (or co-adviser) may serve as chair for the final exam.
- o The adviser must represent the major field and the co-adviser may represent the major field or the outside/minor field