ATSC-PhD

Program for Atmospheric Science PhD Students

Welcome to the PhD program in Atmospheric Science! Please see below for information about the progress you are expected to make during your <u>first</u>, <u>second</u>, <u>third</u> and <u>fourth</u> year. You'll also find information about the <u>comprehensive exam</u>.

Typical Outline

First Year

During your first month you should:

- 1. Meet with your supervisor.
- 2. Form a PhD committee.
- 3. Make research plans.
- 4. Start a literature review.
- Take any desired courses which should include either EOSC 571 or GEOB 500.

By your fourth month you should have:

- 1. Received short list of classic texts to read.
- 2. Started preparation for the Spring Review.
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For the Spring Review (April-May) you should:

- 1. Make a short presentation on your research theme to your PhD committee.
- 2. Discuss your academic accomplishments and funding, and form a
- 3. preliminary list of three comprehensive-exam topics with reading lists
- 4. Ask your committee for any relevant feedback.

Second Year

By your third month you should:

- 1. Submit your PhD research proposal (< 25 pages)
- 2. Give you're committee around a week to review the proposal then meet to discuss and refine plans for your PhD.
- 3. The nature of the <u>comprehensive exam</u>, including testing methods and topics, and final reading lists are set at this meeting.

Comprehensive Exam

The Comprehensive Exam should be scheduled at nine months into the second year or six months after you receive the final reading lists, whichever is later.

The exam covers three levels of knowledge:

- 1. Basic but broad atmospheric knowledge. This is specified by textbooks or equivalent courses, and tested during an oral exam by one faculty member outside of the PhD committee.
- 2. More-advanced knowledge focused in three areas. Each topic is tested with either a two hour written exam, an oral exam, or a project.
- 3. Synthesis of knowledge regarding the research topic. This is tested by a 20 minute presentation followed by an oral exam.

All exam components are normally completed in a two week period.

The student must pass all components of the exam i.e. all general question topics, oral presentation, oral basic questions on atmospheric science, and oral focused questions on the PhD topic.

There are three possible outcomes of this exam

- 1. A full pass.
- 2. A pass, with additional readings/courses required.
- 3. A failure to pass with a one off option to retake within 4 months.
 - a. Should you fail to pass a second time you will be required to
 - b. With draw from the program.

Third Year

During your third year you should:

- 1. Conduct research (field work, modelling, and/or theoretical)
- 2. Analyze your data.
- 3. Make oral presentations at conferences
- 4. Investigate possible collaborations with other agencies.
- 5. Meet with your supervisory committee at least once a year.

Forth Year

During your fourth year you should:

- 1. Finish your research.
- 2. Write papers for publication.
- 3. Combine your publishable papers with appropriate introduction and conclusion into a <u>coherent</u> written dissertation.
- 4. Conduct a final oral defence.