

AES Qualifying Exam Policies

PhD Qualifying Exam Process and Guidelines for Atmospheric and Earth Science

It is highly recommended that all students in the AES Department PhD program must complete their Qualifying Exam (proposal, written, and oral portions) within 24 months of receiving notification that they have passed the Preliminary Exam. Time extensions beyond 24 months need to be approved by the student's main Academic Advisor.

The Qualifying Exam is intended to test the **depth of knowledge** in a student's proposed research area. The exam has a written and an oral component. Note that, although there are two components to the qualifying exam, they are in fact one exam. A student has two attempts to pass the qualifying exam.

Student must take AES 782 - Professional Development before attempting the Qualifying Exam since proposal writing is emphasized in that course.

1. **Proposal.** The student must write a 15 page proposal including figures (excluding references) in single spaced 12 point font, 1 inch margin format. The format for this proposal is outlined in the AES 782 course. The proposal must include an outline detailing when the student will finish the research and defend the dissertation. The advisor must approve this proposal.
2. **Prior to initial PhD Committee meeting.** At least 2 weeks before the initial PhD Committee meeting, the student must email their proposal to committee members (CMs) for their review.
3. **Initial PhD Committee meeting.** At the committee meeting, the student will make a 15-20 minute presentation that will provide an overview of the research proposal. This initial committee meeting is for introductory purposes only and not to be construed as an exam. Light clarifying questions from the PhD CMs, while in-depth questioning and discussion is not expected.

Questions to Advisor. Two weeks after this initial meeting, each CM should email two to three exam questions to the Advisor. Note that the minimum required number of committee members for a PhD is five, but sometimes a student has more committee members. A total of eight to ten questions are reasonable for this 70 hour, with several questions possessing multiple parts. As external (to UAH or NSSTC) CMs are involved, it is recommended that the Advisor provide clear instructions for those members who are not familiar with AES Qualifying Exam procedures.

4. **Written exam.** Typically, the student takes the written exam over a weekend. Therefore, the advisor must email the questions to the student between 11:30 a.m. and 12:00 noon on a Friday. The questions must also be emailed to the Department Chair (aes-chair@uah.edu). The student has 70 hours to answer the questions. The answers

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must be emailed back the advisor **and the Department Chair** on or before 10:00 a.m. on the following Monday. The student can scan the exam and email it in PDF format to the Advisor, or convert their MS Word or other formatted text document into a PDF. To ensure fairness for all students who take these exams, no extra time to answer these questions will be allowed. If the advisor does not receive the student responses on or before 10:00 a.m., the student must retake the exam. The committee will write new questions, and the process will be repeated. At this point, the student has only one more attempt to pass the exam. The guidelines and format with example questions are listed in the attached file.

5. **Student responses forwarded to CMs.** The advisor provides the student responses to each of the CMs. The exam responses should be sent to the CMs within 24 hours of receipt of them.
6. **CM evaluations.** The CMs must provide (to the Adviser) a pass or fail grade for the responses to their questions. Typically, a 2-week period of time is set aside for exam review and grading, after which the Oral Exam is given.
7. **Oral Examination.** The student should take the oral examination 2 weeks after the written exam. The Advisor and CMs should work to adhere to the 2-week separation between the written and oral exam to ensure consistency within the Qualifying Exam for all students. This portion of the exam is used to: a) test the student's knowledge in the proposed area of research, including the fundamentals of Atmospheric and Earth Science and b) to ask follow-up questions to the written portion of the exam, and c) to evaluate the student's ability to provide coherent reasoning and answers related to questions on their research topic, and/or other related topics. At the end of the oral exam the CMs will collectively decide (with a vote) to Pass, Fail, or Conditionally Pass the student. Remedial work for conditional pass must be clearly outlined and must remain on file in the department. If a student fails the exam, they have a second attempt to pass the exam that could include both oral and/or written portions.

Paperwork - All forms are on the Graduate

<https://www.uah.edu/graduate/resources/forms>

1. Student must first have an approved Program of Study signed by CMs before taking the Qualifying Exam.
2. Two weeks before the student takes the oral component of the Qualifying Exam he/she must submit a Notification of Oral Examination form to the Department Chair.
3. The Advisor must print off the Report of Exam form before the day of the exam. At the end of the oral exam when the committee has made its decision, the CMs must sign and return the form to the AES Staff Assistant for submission to the Graduate School.
4. Upon successful completion of the Qualifying Exam, students on a GRA will receive a stipend increase. The raise will take effect during the next semester as long as the exam is completed at least three weeks before the start of the stipend period.