

ATS – Preliminary Exam Policies and Guidelines

PhD Preliminary Exam Process and Guidelines for Atmospheric Science

All students in the PhD program are required to pass the preliminary exam. Students enrolled in the MS program who wish to continue towards their PhD typically take the exam during the last semester of the MS program. Students who are enrolled in the PhD program typically take the preliminary exam during their first year. The exam is usually given twice a year (summer and winter). Typically, the exam is conducted over a three day period – Monday, Wednesday, and Friday – with one question in the morning and one in the afternoon. Each question should be answered within 150 minutes.

1. Each student is required to pass questions from the three core courses: a) Atmospheric Dynamics, b) Atmospheric Thermodynamics, and c) Atmospheric Radiation. The passing grade for these mandatory questions is 60/100.
2. The student must also pass questions from three other graduate level courses from their program of study. The passing grade for these questions is 60/100. The goal of the preliminary exam is to test the student on the core courses and the breadth of topics in Atmospheric Science. Therefore, only one topic from each option may be selected. The available options are listed in the table below. Special topics courses are precluded.
3. The student has two attempts to pass all six question sets. If the student fails the first attempt, they must try the second attempt the next time the exam is offered. They only need to retake questions that they have failed during the first attempt.
4. If the student does not pass the questions in the second attempt, they will be terminated from the PhD program.

Process

- 1) There will be two graders for each question. The first grader will write the question, and the second grader must approve the question. The second grader can also contribute to the questions.
- 2) There will be a committee meeting to approve all the preliminary exam questions. The committee will be selected by the department chair.
- 3) Each question will then be evaluated by the two graders. They will provide a written evaluation of the questions on a separate sheet of paper and not on the exam itself. Note that the graders will not know the name of the student taking the exam.
- 4) The graders will turn the scores in to the department chair. The chair will then determine if a third grader is needed to resolve differences in the two scores.
- 5) The faculty/committee will then meet to evaluate the scores of all the preliminary exam questions.
- 6) The student will be notified by the chair of the department and can set up an appointment to discuss the grades with the chair, if necessary. The three secondary questions must be chosen from one of the options in the table below. Only one topic from each option may be selected. Note: Atmospheric Electricity and Dual Polarization Radar will be moved from special topics and will become regular catalog courses.

CHEMISTRY Option	CLIMATE Option	MET. Option	PROCESS Option	SATELLITE Option
520 Introduction Chemistry	630 Physical Climatology	554 Mesoscale Forecasting	740 Cloud Processes	670 Satellite Rem. Sen. I
620 Chem/Aero	603 Climate Dynamics	675 Data Assimilation	655 Boundary Layer	770 Satellite Rem. Sen. II
622 Pollution Modeling	635 General Circulation	656 Tropical Meteorology	671 Grd. Remote Sensing	761 Radiation II
		681 Numerical Modeling	Atmospheric Electricity	
		652 Synoptic Meteorology	Dual Polar. Radar	
		651 Dynamics II		

Paperwork

1. The student must send an email to the department chair and his/her advisor on or before February 1 (for the summer exam) and on or before October 1 (for the winter exam) specifying when they intend to take the exam and the three elective courses that they will take.
2. A student who passes the preliminary exam could receive a pay raise of \$100 per month if they are supported by a GRA. Some students on fellowships may not be eligible for the pay raise due to conditions stipulated in the award. However, this pay raise is effective only the following semester and not during the semester that the exam was taken.