Atmospheric Science, PhD

The Doctor of Philosophy degree is a research-oriented degree awarded upon the demonstration of scholarly competence. To obtain the Ph.D. degree in Atmospheric Science, each student must satisfy all requirements of the School of Graduate Studies, as well as those of the Atmospheric Science Program. Admission to the Ph.D. program in Atmospheric Science is dependent upon satisfactory performance on the Preliminary Examination which is administered twice a year. Students entering UAH with an M.S. degree or previous graduate training in Atmospheric Science must pass the Preliminary Examination at an early opportunity. Students are permitted two attempts to pass the Preliminary Examination.

In summary, the five major requirements for the Ph.D. degree in Atmospheric Science are the following:

1. Take the core courses and pass the preliminary examination

Each student must pass the **Preliminary Examination** covering material in the three core courses plus three other ATS courses as outlined in the Ph.D. Preliminary Exam policies. The core courses are:

Code	Title	Semester Hours
ATS 541	ATM THERMODYN & CLOUD PHYSICS	3
ATS 551	ATMOS FLUID DYNAMICS I	3
ATS 561	ATMOSPHERIC RADIATION I	3

It is anticipated that a student will take the exam during the second year of graduate study, but those with a strong background in Atmospheric Science may take the exam within the first year. The Preliminary Examination may be taken only twice. The student must pass all six sections in order to continue toward Ph.D. candidacy.

Supervisory Committee

After a student has passed the Preliminary Examination, a Supervisory Committee will be formed. The committee will consist of the student's academic advisor plus at least four other members. Three of the Committee Members, including the Committee Chair, must be tenured or tenure-track members of the ATS faculty. The committee must be approved by the Graduate Dean. The committee will later administer the Qualifying Examination, and with consent of the Graduate Dean, give approval to all aspects of requirements 2-5.

2. Satisfy the residence requirement

According to graduate school policy, residence may be established through either:

1. being enrolled as a full-time student (at least 9 graduate semester hours) either for one continuous academic year, or for Spring and Fall semesters in the same calendar year, or
2. being enrolled in at least 6 semester hours of graduate course work in at least three of four consecutive semesters.

3. Complete an acceptable Program of Study (POS).

Students must formulate an appropriate Program of Study, in consultation with a faculty advisor and chair, before the end of the second semester**.** Each Program of Study, individualized to meet the student's needs and requirements of the program, will stress breadth, depth, and research competence, and relate the major area to its applications. Any prerequisites for courses on the POS must be fulfilled before attempting the courses.

- Minimum degree requirements of this Program of Study will include at least 48 semester hours of graduate level **course work**. These include the core courses needed to prepare for the Preliminary Examination and courses required in a major area of concentration that will prepare the student to conduct original research. While required, supporting courses, ATS 509, ATS 780, ATS 781, ATS 782, are not included in the minimum degree requirements of 48 semester hours.
- Students can transfer up to 24 semester hours of **course work** from their M.S. program.
- Students can transfer an additional 6 semester hours of **course work,** including, with approval, special topics courses but **not** including thesis semester hours.
- 50% of the minimum degree requirements (48 semester hours) must be from 600 level or higher courses.
- A minimum of 18 semester hours of doctoral dissertation (ATS 799) is required.
- Students must register for a total of 3 semester hours of Seminar and Professional Development. (ATS 780, ATS 781, ATS 782)
- Students must maintain a cumulative GPA of at least 3.0.

4. Pass the Qualifying Examination

Once the Program of Study has been submitted and the Ph.D. Student Advisory Committee (SAC) has been formed, the next steps are to submit a written dissertation proposal to the SAC and then make an oral presentation (usually 2-3 weeks later). This will be followed by the Qualifying

Examination, which will cover the major areas of study and the student's proposal for the dissertation topic. It will have both written and oral components and will be prepared and graded by the SAC. This examination may be taken at most twice.

5. Complete and defend a research dissertation

Each student must complete and successfully defend a research dissertation, the results of which are publishable in a nationally recognized journal. The dissertation, which must comply with the regulations set forth in the School of Graduate Studies' Thesis and Dissertation Manual, must be approved by the student's supervisory committee, the chair of the Atmospheric Science Department, the Dean of the College of Science, and the Dean of the School of Graduate Studies. A significant portion of the dissertation must be submitted for publication in an approved journal.

Additional Information

All requirements for the Ph.D. must be completed in no more than five years after the student has passed the qualifying examination.

The atmospheric science program does not require knowledge of a foreign language, but it does require proficiency in both spoken and written english.