

Atmospheric Science Graduate Degree Requirements

Revised on April 22, 2004

Approved by Graduate Council on May 20, 2004

In addition to meeting the requirements of Graduate Studies, graduate students in the Atmospheric Science Graduate Group must fulfill the following:

Ph.D. Requirements

The Atmospheric Science Graduate Group offers a Plan A Ph.D. program, which includes a five member Dissertation Committee and a final exam.

I. Coursework - 36 units of graduate and upper division courses

A. Breadth Requirement - M.S. degree in accepted atmospheric science program OR a “B” grade average or better in ATM 120, 121a, 128, and 121b or 158 or 160. A grade of “B” or higher in an equivalent course at another institution may be used to satisfy any or all of these course requirements, but will not contribute to the requirement of 36 units of coursework.

B. Depth Requirement - Courses taken to satisfy the Breadth requirement may not be used to satisfy these requirements. These or equivalent courses may be completed during prior M.S. study.

1. 6 units of graded ATM graduate courses with a grade of “B” or better
2. 9 units of additional graded upper-division or graduate courses
3. additional units to complete the 36 unit coursework requirement, chosen with the advice of the major professor and/or the Graduate Advisor

C. Seminar

1. 6 units of ATM 290
2. 3 formal presentations, normally given as part of ATM 290

II. Satisfactory completion of the Qualifying Examination. The Qualifying Examination is administered by the student’s Qualifying Examination Committee, and is normally completed before the end of the student’s third academic year. The Qualifying Examination Committee is recommended by the Graduate Advisor in consultation with the candidate and his/her prospective major professor and submitted to Graduate Studies for approval in accordance with Academic Senate regulations. It is composed of 5 members, including at least 3 members from the Atmospheric Science Graduate Group, and at least 1 member from outside of the group. The student’s major professor may not be the Chair of this committee.

- A. Open book written examination (no more than 8 hours to complete), whose general contents are set by the student’s Qualifying Examination Committee at least four weeks before the exam. The exam will focus on preliminary research results and Depth course work. This exam, which is graded by the Qualifying Exam Committee, must be passed before the student may progress to steps B. and C.
- B. A written Ph. D. Prospectus of approximately 10 pages. The Prospectus must be submitted to the Qualifying Examination Committee at least ten working days prior to the date of the Oral Exam.
- C. Oral Qualifying Examination, which is administered by the student’s Qualifying Exam Committee, and is open to all ASGG faculty with the unanimous consent of the committee and student.

III. Successful completion of all three parts of the qualifying exam, followed by filing the application for “Advancement to Candidacy” with Graduate Studies, promotes the student to a candidate for the Doctor of Philosophy degree. As part of the “Advancement to Candidacy” form the candidate in consultation with the Graduate Advisor and his/her major professor will recommend to Graduate Studies five people for the Dissertation Committee. This committee is composed of three committee members that will help guide the candidate’s dissertation research and two additional members that will participate in the Final Exam. The student’s major professor will be chair of this committee. At least one committee member must be from outside of the ASGG. The committee is approved in accordance with Academic Senate regulations

IV. Satisfactory completion of a Ph.D. Dissertation. The Ph.D. dissertation must be an original and substantial contribution to knowledge in the student’s major field. It must demonstrate the ability to carry out a program of advanced research, relying extensively upon one’s own initiative and skills, and must report the results in accordance with standards observed in recognized scientific journals. The dissertation must be written in accordance with the rules issued by Graduate Studies and must be approved by the three members of the Dissertation Committee that helped guide the candidate’s dissertation research.

V. Satisfactory Ph.D. Dissertation Defense including public seminar. The defense will be composed of two parts: i) a public exit seminar open to all students and faculty and ii) a closed oral examination administered and evaluated by the five members of the Dissertation Committee. The oral examination will focus on the dissertation and the relationship of the candidate’s research to the overall discipline.

M.S. Requirements –Thesis

I. Coursework - 30 units of graduate and upper division courses

A. Breadth Requirement - “B” grade average or better in ATM 120, 121a, 128, and 121b or 158 or 160. A grade of “B” or higher in an equivalent course at another institution may be used to satisfy any or all of these course requirements, but will not contribute to the requirement of 30 units of coursework.

B. Depth Requirement - Courses taken to satisfy the Breadth requirement may not be used to satisfy these requirements.

1. 12 units of graded ATM or related (including Chemistry, Math, Physics and Engineering) graduate courses with a “B” grade average or better

2. 3 units of additional graded upper-division or graduate courses

3. additional units to complete the 30 unit coursework requirement, chosen with the advice of the major professor and/or the Graduate Advisor

C. Seminar

1. 4 units of ATM 290

2. 2 formal presentations, normally to be given in ATM 290

II. Satisfactory completion of a Master’s Thesis. A Master’s thesis is primarily an educational experience for the student and the thesis is usually closely guided by the major professor. The thesis (and the work behind it) should demonstrate the student’s ability to search out

answers to a well-defined question and apply them in an intelligent and orderly fashion to a specific problem. The thesis must be written in accordance with the rules issued by Graduate Studies and be acceptable to the 3-member Thesis Committee recommended to Graduate Studies by the Graduate Advisor and the student's major professor and appointed in accordance with Academic Senate regulations.

III. Exit Seminar. During the final quarter of residency the student is expected to present the results of the thesis work in an exit seminar. This seminar may be given as part of ATM 290.

M.S. Requirements –Exam

I. Coursework- 36 units of graduate and upper division courses.

A. Breadth Requirement - "B" grade average or better in ATM 120, 121a, 128, and 121b or 158 or 160. A grade of "B" or higher in an equivalent course at another institution may be used to satisfy any or all of these course requirements, but will not contribute to the requirement of 36 units of coursework.

B. Depth- Breadth courses may not be used to satisfy these requirements

1. 18 units of graduate courses in ATM or related (including Chemistry, Math, Physics and Engineering) areas with a grade of "B" average or better
 - a. Of those, a minimum of 6 units of ATM courses
2. additional units to complete the 36 unit coursework requirement, chosen with the advice of the major professor and/or the Graduate Advisor (no more than 9 units may be ATM 299)

C. Seminar

1. 4 units of ATM 290
2. 2 formal presentations, normally as part of ATM 290

II. Satisfactory completion of an open book written examination (no more than 8 hours to complete), whose contents are set by the student's M.S. Committee. This committee is made up of three members of the ASGG and is nominated by the Graduate Advisor in consultation with the student. This exam will include questions concerning the Breadth and Depth courses taken by the student.