

Atmospheric Sciences

Doctor of Philosophy (Ph.D.) DEGREE

Departmental REQUIREMENTS

(Updated 9/7/17)

ADVISING

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APPLICATION & REQUIREMENTS

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DEGREE CHECK

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NOTE: This document is meant to guide the student through the complicated path of obtaining a graduate degree. It is not to be regarded as a legally binding contract. If you have any questions please ask.

General Requirements

COURSES

All doctoral students are personally responsible for taking the following steps at the proper times. All forms must be submitted before the deadline dates as scheduled by the Graduate College. See the HAS Graduate Coordinator for information on these deadlines and all forms required by the Graduate College Degree Certification office. For assistance with any problems, students are encouraged to meet with their Major Advisors, the Graduate Director, the Graduate Coordinator, the Department Head, and/or the Graduate Student Representatives.

All students seeking a Ph.D. must complete a minimum of 66 units of graduate credit.

36 units of graduate course work in Atmospheric Sciences
12 units of graduate course work in their minor field of study
18 units of dissertation credit
66 total credits

A. The following **core courses**, or their equivalents at other institutions, are **mandatory** for all students:

ATMO 541A	Dynamic Meteorology I	3 units
ATMO 541B	Dynamic Meteorology II	3 units
ATMO 551A	Physical Meteorology I	3 units
ATMO 551B	Physical Meteorology II	3 units

AND a minimum of 24 units of coursework in Atmospheric Sciences at the 500/600 level

B. Students are required to complete a Minor Program, which typically includes 12 credits of coursework. However, the requirements are determined by the minor department and may include a written minor examination.

C. Students are required to take a minimum 18 units of ATMO 920 for dissertation credit. These units cannot be taken until after the Comprehensive Examination has been passed and are in addition to the 36 units of graduate course credit described in (a).

D. Students are also required to take a minimum of 2 units of seminar. These credits are graded S, P, and K, and do not count toward the student's overall GPA. These credits DO NOT count toward the 66 total credits required for the dissertation.

A Typical Doctoral Program:

Semester	Course	Units
Fall: Year 1	ATMO 541A Dynamic Meteorology I	3
	ATMO 551A Physical Meteorology I	3
	ATMO XXX (elective)	3
Spring: Year 1	ATMO 541B Dynamic Meteorology II	3
	ATMO 551B Physical Meteorology II	3
	ATMO XXX (elective)	3
Fall: Year 2 Qualifying Exam	ATMO XXX (elective)	3
	ATMO XXX (elective)	3
	Seminar	1
	Minor Course	3
Spring: Year 2	XXXX (elective)	3
	Seminar	1
	Minor Course	3
Fall: Year 3	ATMO XXX (elective)	3
	Minor Course	3
	Minor Course	3
Spring: Year 3 Minor Exam Comprehensive Exam	ATMO XXX (elective)	3
	XXXX (elective)	3
Fall: Year 4	ATMO 920 (Dissertation)	9
Spring: Year 4 Final Oral Defense	ATMO 920 (Dissertation)	9
Total Units		68

MAJOR ADVISOR

During the first semester, the student should select a Major Advisor to chair their committee. The student and Major Advisor then select the doctoral Committee members for the student's comprehensive examination.

MINOR ADVISOR

The minor department controls the minor portion of the written examination and may waive it at their discretion. The minor advisor must be present during the oral comprehensive examination. The minor advisor must notify the ATMO Graduate Coordinator when the student has met the minor requirements and passed the written minor exam.

PLAN OF STUDY

By the end of the second semester, the student and their Major Advisor should have decided on the student's Plan of Study (POS). Please see the Graduate Coordinator for forms and procedures. The POS must have the approval of the student's Major Advisor and the Director of Graduate Studies before it is submitted to the Graduate College. Once the Graduate College approves the POS, a \$35 fee will be billed to your Bursar's Account. The POS GradPath form can be accessed through your UAccess Student account. Credits from other institutions the student wishes to transfer should be discussed and may be approved by the Graduate Director and Major Advisor at this time. Any changes to the original POS must be re-submitted to Graduate College during the final semester.

The POS identifies:

- Courses the student intends to transfer from other institutions; if planning to transfer course credit then the student must complete the **Application to Transfer Coursework** form through GradPath Forms, which is accessed through your UAccess Student.
- A maximum of six (6) semester hours of transferred credit may be used to meet degree requirements.
- Courses already completed at The University of Arizona which the student intends to apply toward the graduate degree; and
- Additional course work to be completed to fulfill degree requirements.

QUALIFYING EXAMINATION

Students who wish to apply to the doctoral program upon completion of their master's degree must have met all core course requirements with an average 2As and 2Bs in order to take the qualifying exam. Failure either to take the exam or to pass the exam after two attempts means that students may not continue to advance in the doctoral program but continue the completion of the M.S. degree requirements upon discretion of your Major Advisor and committee members.

COMPREHENSIVE EXAMINATION

After completion of all, or almost all, non-dissertation credits required at The University of Arizona including minor degree requirements, the student must take and pass the **Comprehensive Examination AND** submit a **Dissertation Proposal/Prospectus** to your advisor and committee members. The oral portion of the examination must cover both the major and the minor. All members must be present for the entire examination. Should special circumstances require a member to attend remotely, prior permission from the Graduate College is necessary. The Comprehensive Examination is considered a single examination, although it consists of written and oral parts.

Comprehensive Committee

The examining committee must consist of a minimum of four members. The Major Advisor and two additional members must be current tenured, or tenure track faculty members. The fourth member may be tenured or tenure-track, or an approved special member. Special members must be pre-approved by the Dean of the Graduate College. Any members beyond the fourth can also be current tenured or tenure-track faculty members, or approved special members.

- The Major Advisor is the “Chair” and the faculty members are considered “Members”.

ADVANCEMENT TO CANDIDACY

When the student has an approved doctoral Plan of Study on file with the Graduate Student Academic Services Office, has satisfied all course work, language, and residence requirements, and passed the written and oral portions of the Comprehensive Examination their bursar account will be billed the fee for candidacy, dissertation processing, and archiving. This is a one-time fee and the student will not be billed again if they change their anticipated graduation date. Copyrighting is optional and carries an additional fee.

DISSERTATION

Students must complete a written dissertation and defend his/her’s dissertation based on original research.

Dissertation Committee

Students will form a dissertation committee by the time of Advancement to Candidacy. Some departments require earlier committee formulation. Individual faculty members may decline membership on committees for academic reasons. Candidates must be able to develop a proposal of sufficient academic merit and on a topic that satisfies their committee. Candidates can be suspended if they do not have an approved dissertation chair and committee.

The Graduate College requires a minimum of three members, all of whom must be current University of Arizona faculty members that are tenured, tenure-track, or approved as equivalent. If a committee has only three members, all must approve the dissertation. In departments that require four or five members, there may be one dissenting vote. The fourth member may be tenured or tenure-track, or an approved special member. Special members must be pre-approved by the Dean of the Graduate College. Any members beyond the fourth can also be tenured or tenure-track, or approved special members. All dissertation committee members are expected to attend the entire final defense.

- The Major Advisor is the “Chair” and the faculty members are considered “Members”.

TIME LIMITATION

All requirements for the degree of Doctor of Philosophy must be completed within 5 years of passing the Comprehensive Exam. Should a student not finish within that time period, he or she may be allowed to re-take the Comprehensive Exam with permission of the program, and then proceed to complete other requirements, e.g., the dissertation.

ARIZONA RESIDENCY

Students must meet the following **minimum** residence/enrollment requirements:

A minimum of 12 units must be completed in residence at The University of Arizona. The remaining credits required for the master’s degree must be met by University credit, graduate-level courses, including on-campus courses, courses offered away from the main campus, and approved thesis credit *in absentia*.

- a. **Without Assistantships:** Students must enroll with a minimum of nine (9) units of graduate credit each regular semester to maintain a full-time student status.

OR

- b. **With Assistantships:** Students must enroll with a minimum of six (6) units of graduate credit each regular semester.

CONTINUING STUDENT STATUS

After finishing all course requirements, students must continue to register each Fall and Spring for a minimum of 1 graduate unit until all degree requirements are met. If the degree program requirements are to be completed in the summer, the student must register for a minimum of 1 unit of graduate credit during that term. If all course work is completed, the student may enroll in ATMO 920.

NOTE: If the student enrolls in **only** 900-level courses during his/her final semester, s/he may be entitled to a "900-Level Graduate Tuition Waiver" if living out of state and not using University resources. Please see the Graduate Coordinator for more information.

REQUIRED DEMONSTRATION OF COMPETENCE

- A. All students must demonstrate, to the satisfaction of each student's Major Advisor, proficiency in both statistics and computer programming (e.g. FORTRAN, MatLab, GrADS, and NCL), numerical atmospheric models and specialized instrumentation Participation in laboratory or field work may be a component. This may be demonstrated by the successful completion of approved courses in these subjects, either as an undergraduate or graduate student.

AND

- B. All students, will be required to present the results of their research in a formal seminar or presentation at a scientific meeting in the form of an oral or poster presentation. Typically a student presents at the annual AIR (April), AGU (December) or AMS (January) meetings.

COMPLETING DEGREE REQUIREMENTS

All degree requirements must have been met before the Graduate College will recommend conferral of the doctoral degree by the Arizona Board of Regents:

- Complete all coursework requirements with an overall 3.0 GPA
- Approved Results of Passing examinations in GradPath forms: qualifying, comprehensive and final oral defense
- An approved final dissertation draft by the Major Advisor and dissertation committee member **AND** submit final draft to the Graduate College before semester deadlines

DIPLOMA

- Diplomas are not given out at Commencement. Diplomas are ordered individually for each student after the final degree audit of their academic record is completed. You should receive your diploma about four weeks after your official graduation date.
- Diplomas are issued using your name as it is listed on your official University of Arizona file. If you want your name changed you must request an official name change with the Registrar's

Office. Note: If you set up a “preferred” name in UAccess, be aware that your official name on your diploma will be your official name and not your “preferred” name.

- Your diploma will not be ordered and mailed until you have paid any remaining balance on your UA account. Please contact the Bursar's office with questions or concerns.
- The diploma will be mailed to the address you have listed in UAccess as your 'Diploma' address. If you do not have a Diploma address listed, it will be mailed to the Permanent address on your record. Please check your addresses in UAccess to make sure your diploma will be mailed to the right place.
- Most international students' Permanent addresses are in their home country. If you do NOT want your diploma sent to your home country address, please go to UAccess and create a new address and indicate its type as 'Diploma'. You should create your Diploma address before the end of your graduation term.