Master of Science Plan of Study – Atmospheric Sciences (Effective AY2018-2019)

UNDERGRADUATE PREREQUISITE COURSES		
☐ College Physics 1 Intro Mechanics ☐ College Physics 2 Elec/Magn, Optics/Heat, etc.	☐ Calculus 1 ☐ Calculus 2	☐ Vector Calculus

MASTER'S CORE COURSES **Minimum 12 units** (mandatory for all students)			
☐ ATMO 541A Dyn Meteorology I	☐ ATMO 541B Dyn Meteorology II	☐ ATMO 551A Phys Meteorology I	☐ ATMO 551B Phys Meteorology II

ADVANCED ELECTIVES: HOME DEPARTMENT Category 1 **Minimum 12 units in Categories 1 & 2** [Some courses only offered /o = odd numbered years or /e = even numbered years. See Catalog for details.]			
☐ ATMO 524 Hydroclimatology ☐ ATMO 529 Objective Analysis /o ☐ ATMO 536A FundamentalsAtmo ☐ ATMO 537 Physics of the Sun ☐ ATMO 545 Intro Data Assim /o	☐ ATMO 555 Atmo-Hyd Rem Sens ☐ ATMO 558 Mesoscale Model /e ☐ ATMO 569A Air Poll I: Gases ☐ ATMO 569B Air Poll II: Aero /o ☐ ATMO 574A Analys-Forecast I /e	☐ ATMO 574B Analys-Forecast II/o ☐ ATMO 577 Topics Appl Meteor ☐ ATMO 579 Boundary Layer /e ☐ ATMO 580 Tropical Meteor /o	☐ ATMO 589 Atmo Electricity /o ☐ ATMO 595C GCMs+Obs /o ☐ HWRS 543A Risk Assess Envir ☐ *New* courses in development

ADVANCED ELECTIVES: OTHER DEPARTMENTS Category 2			
☐ ATMO 523 Hydrology ☐ ATMO 590 Intro Rem Sens ☐ GC 572 Global Biogeochem Cyc ☐ GEOG 530 The Climate System	☐ GEOG 539A Intro Dendrochron ☐ GEOG 547 Global-Reg Climate ☐ GEOS 567 Inverse Prob Geophys ☐ GEOS 578 Global Change	☐ GEOS 579 Intro Climate Dynam ☐ GEOS 582 Paleoclimatology ☐ PTYS 517 Atmo & Remote Sens ☐ RNR 527 Earth Chg Carbon Cycle	☐ WSM 502 Air+Water: PhysFluids ☐ WSM 560A Watershed Hydr ☐ WSM 696M MATLAB Envir Data ☐ WSM 696Q Prac/Appl Hydromet

ADVANCED ELECTIVE COURSE & ADDITIONAL COURSE UNIT **3-unit course** (another ATMO or other relevant UA course) **+ 1 unit**	
☐ ATMO _____ **OR** _____(Course prefix/number/units)	☐ _____ Additional unit (course unit **OR** 1 addt'l research-thesis* unit)

SEMINAR **2 units** (one per semester)
☐ **HWRS 595A** Current Topics in Hydrology & Atmospheric Sciences – Thursdays at 4 pm. Grade is S, P, or K and does not count toward cumulative GPA.

PROGRAMMING COMPETENCE & PROFESSIONAL DEVELOPMENT	
☐ All students must demonstrate competence in statistics and computer programming (e.g. FORTRAN, MatLab, GrADS, NCL), numerical atmospheric models and specialized instrumentation. Participation in laboratory or field work may be a component. Competence may be demonstrated by successful completion of approved courses in these subjects (undergraduate or graduate level).	☐ All students must 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, students present at the HAS annual student research conference, El Día del Agua y la Atmósfera (Spring Semester) or at AGU (December) or AMS (January) meetings.

RESEARCH OR THESIS* **Minimum 3**, maximum 4	
☐ ATMO 900 Research (3 units minimum)	☐ ATMO 910 Thesis (3 units minimum)

Need details? → **schedule.arizona.edu or catalog.arizona.edu or has.arizona.edu/graduate-information (see MS ATMO)**

TYPICAL MASTER'S PROGRAM

Semester	Course	Units
Fall: Year 1	ATMO 541A	3
	ATMO 551A	3
	ATMO xxx (elective)	3
Spring: Year 1	ATMO 541B	3
	ATMO 551B	3
	ATMO xxx (elective)	3
Fall: Year 2	ATMO xxx (elective)	3
	XXXX xxx (elective)	3
	ATMO 900/910 Research or Thesis	2
	HWRS 595A Seminar	1
Spring: Year 2*	ATMO xxx (elective)	3
	ATMO 900/910 Research or Thesis	2
	HWRS 595A Seminar	1
	Total Units	**33**
*In 4th or Final Semester: A student who plans to continue in the ATMO doctoral program must pass the Doctoral Qualifying Exam (details below).		

ACADEMIC PROGRESS BENCHMARKS

Year 1: Begin course work and select a Major Advisor to chair your committee & submit request for Transfer Course Work form (if applicable), and submit Master's Plan of Study
End Year 2: Complete course work; finish research and submit for publication; submit Committee Appointment form & take Qualifying Exam if continuing in PHD

Refer to the Master of Science Degree Handbook for details about ***the Research Topic, the Thesis, the Scholarly Paper for Publication,*** *and* ***Special Notes***.

ARIZONA RESIDENCY

Minimum residence/enrollment requirements: 12 units must be completed at the University of Arizona; the remaining required units must be satisfied by University credit, graduate-level courses, including on-campus courses, courses not offered on the main campus, and approved thesis credit in absentia.

DOCTORAL QUALIFYING EXAM

An MS student who plans to continue in the doctoral program must have met all core course requirements with an average of 2 As and 2 Bs in order to waive the Qualifying exam by MS major advisor. ***Continuing students*** must submit the PhD application to the Graduate College to meet the appropriate deadline—January 15 for international students, February 1 for domestic students.

MASTER OF SCIENCE GRAD PATH FORMS

Once matriculated into a degree program, **Continuous Enrollment** is required (fall/spring, fall/spring)—see Graduate Catalog for policies. **Summer enrollment** is not required *unless* you complete requirements in the summer. All requirements should be completed within **6 years** (from first course work) to ensure currency of knowledge.

REQUIRED FORMS
Login to ***Student UAccess*** *to complete any form*

Responsible Conduct of Research Statement
- All students complete this form. Additionally, an RCR Workshop is required for any student funded by an NSF or NIH grant.

Master's Plan of Study
- Submit plan of study after second semester in residence (end of 1st year)
- Include 33 units as described on page 1 which includes 3 (minimum) to 4 (maximum) research or thesis units
- You are expected to complete all course work and writing for the master's publication or thesis within a 2-year period.

Master's Committee Appointment
- Contact the ATMO graduate coordinator for instructions prior to completing this form

Master's Completion Confirmation
- Department will submit this form after you have completed the thesis or research publication

Transfer Credit
- A maximum of 6 graduate units (approved by DGS) may be transferred from another university for use in the Plan of Study

Petition (use for a variety of reasons)
- Petition to take a leave of absence (temporarily suspends continuous enrollment) or extend time to complete a course