

MASTER OF SCIENCE IN ATMOSPHERIC SCIENCE, PLAN B

Requirements Effective Fall 2025

A minimum of 30 credits is required. At least 20 must be Department of Atmospheric Science courses (i.e., courses with the ATS prefix.) A scholarly paper, as defined by the graduate committee, must be prepared and presented to the committee¹.

The student must complete a minimum of 30 semester credits. The 30 credit hours must include 1) the 13 required core credit hours listed under Plan A (including ATS 693) and 2) a minimum of 11 elective credit hours in structured classes. Electives may include any structured class at the 500/600 level. With written adviser approval, electives also may include structured 700 level classes and/or structured graduate courses in other departments. The remaining six credit hours may be in independent studies (ATS 695). Research credits (699, 799) and audits do not count toward the non-thesis M.S. degree.

Colloquium participation

All graduate students enrolled in the department are expected to attend the weekly department colloquium series. Colloquia are normally held once per week when classes are in session during the Fall and Spring Semesters.

Thesis requirements

No thesis is required for the Plan B MS.

Final projects (Plan B Master 's)

An M.S. student is expected to demonstrate a breadth of knowledge in the fundamentals of atmospheric science. Under the Plan B option, the student must submit to their M.S. committee a scholarly paper that reflects such knowledge. The format and specific expectations for the paper are determined by the M.S. committee on a case-by-case basis.

The committee evaluates the scholarly paper based on its scientific content and clarity of presentation. Following evaluation, the committee will provide feedback to the student. If revisions are required, the student must make the necessary improvements and submit the revised paper to the M.S. committee by a deadline specified by the committee.

Students completing a Plan B M.S. degree may request admission to the PhD program, although this pathway is less commonly pursued. If the student expresses interest in continuing to the PhD program, the M.S. committee will provide a recommendation regarding their suitability for admission. This recommendation will be submitted to the Department Head.

Competency exams

The scholarly paper described above comprise the student's final examination. Acceptance of the scholarly paper by the student's MS committee signifies a passing grade.

Internships or practicum experiences

No internships or practicum experiences are required.

Oral presentations

No oral presentation is required for the Plan B MS.

Teamwork expectations

Students are expected to work collaboratively on co-authored publications as appropriate for their research topic.

Code	Title	Credits
Required Coursework: ²		
ATS 601	Atmospheric Dynamics I	2
ATS 606	Introduction to Climate	2
ATS 620	Thermodynamics and Cloud Physics	2
ATS 621	Atmospheric Chemistry	2
ATS 622	Atmospheric Radiation	2
ATS 640	Synoptic Meteorology	2
or ATS 641	Mesoscale Meteorology	
ATS 693	Responsible Research in Atmospheric Science	1
ATS 695A	Independent Study: Atmosphere/Ocean Coupling	6
or ATS 695B	Independent Study: Atmospheric Science Topics	
Elective credits of ATS 5XX-6XX ^{3,4}		11
Program Total Credits:		30

A minimum of 30 credits are required to complete this program.

¹ This professional paper is required for graduation from this program.

² A student may substitute a required class for an alternative course if:

i. A course similar to the required class has already been completed at the graduate level with a grade of B or higher

ii. The student's advisor, the department head, and the instructor of the required course approve the substitution in writing

³ Electives must be regular courses; all courses ending in the range -82 through -99 do not meet the electives requirement. Electives may include any structured class at the 500/600 level. With *written* instructor and advisor approval, electives may also include structured 700 level classes and/or structured graduate courses in other departments.

⁴ 6 of the 11 elective credits can be in ATS 695 (Independent Studies).