

# Master of Science in Atmospheric Science

## Atmospheric Science Graduate Program

The MS program in Atmospheric Science expands the student's knowledge of fundamental atmospheric processes and how the atmosphere interacts with other parts of the environment. Atmospheric Science at KU is the only one of its kind in the state and has a unique interdisciplinary nature that pursues cutting-edge research and quality education that combines theory, modeling, diagnostic studies, and applications to generate solutions that make a real difference in people's lives. Our faculty (<http://geog.ku.edu/faculty/>) provide a rigorous educational experience through several specialized pathways for the undergraduate degree and through funded research opportunities for graduate students.

Check out our website (<http://geog.ku.edu/>) for more information.

## Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (<https://catalog.ku.edu/graduate-studies/>) section of the online catalog.

Please consult the Departments & Programs (<https://catalog.ku.edu/liberal-arts-sciences/>) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

## Graduate Admission

Entering students are expected to have completed an undergraduate degree in a physical science (e.g., physics, chemistry, atmospheric science, oceanography), mathematics, or engineering and studied mathematics, including vector calculus and ordinary differential equations. Courses taken to remedy deficiencies may not count toward graduate degrees.

The following items must be received to complete the application file:

1. **A completed Graduate Application Form** (<https://gradapply.ku.edu/apply/>) **found on the Graduate Admissions website.**
2. **A current resume/CV.**
3. **A Statement of Interest and Goals.** This is included in the on-line application form. The Graduate Studies Committee places considerable importance on the thoughtfulness of your remarks – in particular, we are interested in learning about (1) your specific interests within geography and why they are important and interesting to you, (2) what you envision as your educational and career objectives and how a degree from KU Geography helps to meet those objectives, and (3) which of our faculty members you think would be an appropriate graduate advisor and mentor.
4. **A scanned copy of an official transcript** can be uploaded at the time of application. Official, degree conferred transcripts will be required prior to the second semester of study. NOTE: Documents uploaded with your application are not considered official. KU does

not consider transcripts that come from applicants or that have been in the applicant's possession as official.

5. **Three confidential letters of recommendation** sent by referees who are familiar with your academic and/or professional activities and who can address your likelihood of success in graduate school.

If possible, we prefer letters from professors, but applicants returning to school after a lengthy absence may substitute letters from supervisors. Note that it is the responsibility of the applicant to request and to confirm that the required letters have been sent by the deadline. When using the on-line reference form to list references, you must include valid e-mail addresses. Once you have completed and submitted your application, your references will be contacted directly via email with directions for submitting their letters of recommendation.

\*\*Graduate Record Examination (GRE) scores are not required for the application. Applicants may choose to submit GRE scores if they feel it will help inform the department of their academic abilities. However, choosing not to submit scores will not affect your chances of admission.\*\*

## ADDITIONAL REQUIREMENTS

Non-native speakers of English must meet English proficiency requirements (<https://gradapply.ku.edu/english-requirements/>).

## NON-DEGREE SEEKING STUDENTS

Non-degree seeking students (NDS) are admitted on a rolling basis and must submit an online application (<https://gradapply.ku.edu/apply/>). Applications are accepted on a rolling basis. Applicants must include the materials below in their application.

1. Copy of official transcripts including proof of a bachelor's degree.
2. Proof of English proficiency, if it is a second language.
3. Statement of purpose and interests.

Submit your graduate application online (<https://gradapply.ku.edu/apply/>). For questions, contact:

**The Graduate Program Coordinator**

## Atmospheric Science M.S. Degree Requirements

Required credit hours:

30 credits 500 level or above. Elective courses should be chosen in consultation with your advisor. For elective course options, please review the 700 level or above Atmospheric Science courses listed in the academic catalog.

Code	Title	Hours
ATMO 710	Atmospheric Dynamics	3
ATMO 720	Atmospheric Modeling	3
GEOG 716	Advanced Geostatistics	3
Attend the Department's New Graduate Student Orientation (non-credit)		
GEOG 980	Seminar in Geography: _____ (Colloquium for 1 credit hour during each of the first 2 semesters of residence at KU.)	2
Select 3 credit hours of electives in atmospheric science electives at the 700 level or above		3

Select 6 credit hours of electives at the 500 level or above outside the geography department	6
A maximum of 6 hours of 500- and 600-level atmospheric science courses may be included in the program, excluding ATMO 505	6
ATMO 899          Master's Thesis	4
<b>Total Hours</b>	<b>30</b>

Recommended: Non-credit 8-hour Responsible Scholarship seminar held before classes start in the spring semester.

## Thesis

A master's thesis is a demonstration of a student's ability to formulate an atmospheric science research problem, collect and analyze relevant data, synthesize appropriate literature, arrive at logical conclusions, and present the entire exercise in a public academic forum. The thesis should address an original problem of scientific importance, though at the M.S. level, the research will to a significant degree be guided by the faculty advisor.

### Thesis proposal

During the second semester in the program, the student must submit to his committee a thesis research plan. All M.S thesis proposals are expected to contain three basic elements:

1. A statement of the research problem or questions to be investigated.
2. A survey of relevant literature and how it relates to the student's research problem
3. An outline of the general methodology, if not specific techniques, to be utilized in addressing the research problem or answering the basic research questions.

Two grades are possible for the proposal defense: "satisfactory" and "unsatisfactory". If the student receives a grade of unsatisfactory, the defense may be repeated once on the recommendation of the advisory committee. If the student receives an unsatisfactory grade a second time, they will be recommended for dismissal from the program. A minimum of 90 days must pass before the defense may be redone.

### Thesis seminar and defense

Students are required to make a formal presentation to the faculty and fellow students in the form of a research seminar, and subsequently defend orally to their committee the results of their thesis research. Ideally, the final examination takes place immediately following the research seminar, but if necessary the two can be scheduled at separate times.

A majority of the committee members must approve the defense with an assessment of "satisfactory", "unsatisfactory", or "honors". Students that fail the defense on their first attempt may repeat the defense at the recommendation of the degree program one more time. A minimum of 90 days must pass before the defense may be redone.

While completing degree requirements, graduate students are expected to understand and follow Office Graduate Studies policies (<https://ogs.ku.edu/policies/>) relevant to their student status and academic standing.

## Handbook for Graduate Students

Detailed information on department regulations can be found in the Geography and Atmospheric Science Graduate Student Handbook.