

ATMOSPHERIC SCIENCES (PHD)

Graduate School

Program Website (<https://www.eas.cornell.edu/eas/programs/graduate-programs/>)

CIP: 40.0401 | HEGIS: 1913.00 | NYSED: 24420

Graduate Field

Atmospheric Science (<https://catalog.cornell.edu/graduate-school/atmospheric-science/>)

Program Description

Atmospheric science concerns the study of processes in the atmosphere, from the planetary boundary layer to the ionosphere. Applications relate to the analysis and prediction of weather and climate. For more information, please see our information page (<https://gradschool.cornell.edu/academics/fields-of-study/field/atmospheric-science/>).

Concentrations

- Atmospheric science

Program Information

- Instruction Mode: In Person
- Location: Ithaca, NY
- Minimum Credits for Degree: 148

Program Requirements

- Minimum Semesters for Degree: 10

Graduate School Milestones

- Responsible Conduct of Research Training: Required
- Open Researcher and Contributor ID (ORCID): Required
- Student Progress Reviews (SPR) begin: First Year
- Examination for admission to candidacy (A Exam): Spring of third year
- Defense of Dissertation (B Exam): Spring of fifth year

Course Requirements

- Course requirements are determined by the student's Special Committee.
- Enrollment in a GRAD research course or the equivalent field specific research course is expected of all students.

University Graduation Requirements Requirements for All Students

In order to receive a Cornell degree, a student must satisfy academic and non-academic requirements.

Academic Requirements

A student's college determines degree requirements such as residency, number of credits, distribution of credits, and grade averages. It is

the student's responsibility to be aware of the specific major, degree, distribution, college, and graduation requirements for completing their chosen program of study. See the individual requirements listed by each college or school or contact the college registrar's office (<https://registrar.cornell.edu/service-resources/college-registrar-directory/>) for more information.

Non-academic Requirements

Conduct Matters. Students must satisfy any outstanding sanctions, penalties or remedies imposed or agreed to under the Student Code of Conduct (Code) or Policy 6.4. Where a formal complaint under the Code or Policy 6.4 is pending, the University will withhold awarding a degree otherwise earned until the adjudication process set forth in those procedures is complete, including the satisfaction of any sanctions, penalties or remedies imposed.

Financial Obligations. Outstanding financial obligations will not impact the awarding of a degree otherwise earned or a student's ability to access their official transcript. However, the University may withhold issuing a diploma until any outstanding financial obligations owing to the University are satisfied.

Learning Outcomes

A candidate for a doctoral degree in Atmospheric Sciences is expected to demonstrate mastery of knowledge in a sub-discipline within the broader domain of atmospheric sciences and to synthesize and create new knowledge, making an original and substantial contribution to the sub-discipline in a timely fashion.

Proficiencies:

- Make an original and substantial contribution to one of the sub-disciplines within atmospheric sciences:
 - Think originally and independently to develop concepts and/or methodologies
 - Identify new research opportunities within their field
- Demonstrate advanced research skills:
 - Synthesize existing knowledge, identifying and accessing appropriate resources and other sources of relevant information, and critically analyze and evaluate their own findings and those of others
 - Master application of existing appropriate research methodologies, techniques, and technical skills
 - Utilize both qualitative and quantitative approaches
 - Communicate in a style appropriate to the discipline
- Demonstrate commitment to advancing the values of scholarship:
 - Keep abreast of current advances within their sub-discipline of atmospheric science and related areas
 - Show commitment to personal professional development through engagement in professional societies, publication, and other knowledge transfer modes
 - Show commitment to creating an environment that supports learning—through teaching, collaborative inquiry, mentoring, organization of community learning experiences, or demonstration
- Demonstrate professional skills:
 - Advance ethical standards in the practice of atmospheric sciences
 - Listen, give, and receive feedback effectively