

# ATMOSPHERIC AND OCEANIC SCIENCES, M.S.

The department offers two named options for an M.S. degree. The Research M.S. named option (<http://guide.wisc.edu/graduate/atmospheric-oceanic-sciences/atmospheric-oceanic-sciences-ms/atmospheric-oceanic-sciences-research-program-ms/>) can be earned as part of the path toward a Ph.D. degree or earned as a terminal degree. The Professional M.S. named option (<http://guide.wisc.edu/graduate/atmospheric-oceanic-sciences/atmospheric-oceanic-sciences-ms/atmospheric-oceanic-sciences-professional-program-ms/>) is for students who are focused on developing the practical skills to succeed in meteorological consulting, risk management, and operational forecasting. Both degrees offer significant opportunities within the public and private sectors.

The department currently has 18 faculty members and many staff members involved in large and energetic research programs. Particular strengths include climate/earth system science, geophysical fluid dynamics, remote sensing, planetary boundary layer, atmospheric chemistry, weather systems and prediction, and oceanography. Course concentrations within the existing degree program are offered in the areas of weather prediction, earth system science, remote sensing, and oceanography.

The department has close ties with the Center for Climatic Research, the Nelson Institute for Environmental Studies, Center for Sustainability and the Global Environment, Space Science and Engineering Center, Cooperative Institute for Meteorological Satellite Studies, National Weather Service, and the State Climatologist Office.

Job opportunities have been strong within the United States for people with graduate degrees in atmospheric and oceanic sciences. The government hires a large number of meteorologists with advanced degrees, as do many private forecasting companies and air quality consulting firms. In addition, there are openings for experts at various government and university research labs.

## ADMISSIONS

Students apply to the M.S. in Atmospheric and Oceanic Sciences through one of the named options:

- Research Program (<http://guide.wisc.edu/graduate/atmospheric-oceanic-sciences/atmospheric-oceanic-sciences-ms/atmospheric-oceanic-sciences-research-program-ms/>)
- Professional Program (<http://guide.wisc.edu/graduate/atmospheric-oceanic-sciences/atmospheric-oceanic-sciences-ms/atmospheric-oceanic-sciences-professional-program-ms/>)

## FUNDING

## GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information

(<https://grad.wisc.edu/funding/>) is available from the Graduate School. Be sure to check with your program for individual policies and restrictions related to funding.

## REQUIREMENTS

### MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (<http://guide.wisc.edu/graduate/#policiesandrequirements>), in addition to the program requirements listed below.

### MAJOR REQUIREMENTS CURRICULAR REQUIREMENTS

#### Requirement Detail

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement 15 credits must be graduate-level coursework. Details can be found in the Graduate School's Minimum Graduate Coursework (50%) policy (<https://policy.wisc.edu/library/UW-1244> (<https://policy.wisc.edu/library/UW-1244/>)).

Overall Graduate GPA Requirement 3.00 GPA required.

This program follows the Graduate School's policy: <https://policy.wisc.edu/library/UW-1203> (<https://policy.wisc.edu/library/UW-1203/>).

Other Grade Requirements See Named Options for requirements information.

Assessments and Examinations See Named Options for requirements information.

Language Requirements No language requirements.

### REQUIRED COURSES

Select a Named Option (p. 1) for required courses.

### NAMED OPTIONS

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral. Students pursuing the Master of Science in Atmospheric and Oceanic Sciences must select one of the named options:

View as [listView](#) as [grid](#)

- **ATMOSPHERIC AND OCEANIC SCIENCES: PROFESSIONAL PROGRAM, M.S.** ([HTTP://GUIDE.WISC.EDU/GRADUATE/ATMOSPHERIC-OCEANIC-SCIENCES/ATMOSPHERIC-OCEANIC-SCIENCES-MS/ATMOSPHERIC-OCEANIC-SCIENCES-PROFESSIONAL-PROGRAM-MS/](http://guide.wisc.edu/graduate/atmospheric-oceanic-sciences/atmospheric-oceanic-sciences-ms/atmospheric-oceanic-sciences-professional-program-ms/))
- **ATMOSPHERIC AND OCEANIC SCIENCES: RESEARCH PROGRAM, M.S.** ([HTTP://GUIDE.WISC.EDU/GRADUATE/ATMOSPHERIC-OCEANIC-SCIENCES/ATMOSPHERIC-OCEANIC-SCIENCES-MS/ATMOSPHERIC-OCEANIC-SCIENCES-RESEARCH-PROGRAM-MS/](http://guide.wisc.edu/graduate/atmospheric-oceanic-sciences/atmospheric-oceanic-sciences-ms/atmospheric-oceanic-sciences-research-program-ms/))

6. (Professional Program): Gain practical hands-on experience in professional atmospheric science careers

## PEOPLE

See department website for list of faculty (<https://www.aos.wisc.edu/faculty/>).

## POLICIES

Students should refer to one of the named options for policy information:

- Research Program (<http://guide.wisc.edu/graduate/atmospheric-oceanic-sciences/atmospheric-oceanic-sciences-ms/atmospheric-oceanic-sciences-research-program-ms/>)
- Professional Program (<http://guide.wisc.edu/graduate/atmospheric-oceanic-sciences/atmospheric-oceanic-sciences-ms/atmospheric-oceanic-sciences-professional-program-ms/>)

## PROFESSIONAL DEVELOPMENT

### GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd/>) to build skills, thrive academically, and launch your career.

### PROGRAM RESOURCES

Please go to the AOS handbook (<http://aoswebsite.aos.wisc.edu/academics/graduate/handbook/career/>) to see the professional development resources available to our graduate students.

## LEARNING OUTCOMES

1. (Research Program or Professional Program): Acquisition of a broad foundation of knowledge contained in our graduate-level core courses
2. (Research Program) Have learned the historical origin and significance of certain issues central to the field by conducting original research
3. (Research Program or Professional Program): Have developed a good problem-solving skill that prepares them to become efficient supporting scientists for research institutions or effective career atmospheric professionals in operational units of government or commercial institutions.
4. (Research Program): Articulate, critique, or elaborate the theories, research methods, and approaches to inquiry or schools of practice in the field of study.
5. (Research Program or Professional Program): Recognize and apply principles of ethical and professional conduct.