

# School of Meteorology

Undergraduate Handbook 2023-2024

Prepared by the Undergraduate Studies Committee

#### School of Meteorology Mission Statement

We provide a world-class academic experience that promotes collaborative, innovative, inclusive education and research opportunities in the atmospheric sciences with positive impact on Oklahoma, the nation, and the world.

#### **School of Meteorology Vision Statement**

Develop the School into a just and equitable, globally-engaged, student-centered atmospheric science program to advance the Nation's Weather, Water, and Climate enterprise, by leveraging our strengths in research, education, and community engagement.

#### School of Meteorology Core Values

- We pursue *Excellence* in everything we do and define it as the unceasing dedication to the highest standards of our performance in the context of our abilities and available resources.
- We employ *Creativity* in all our activities, with the ultimate goal of transforming our imagination into measurable, positive outcomes for all members of our community and our stakeholders alike.
- We aim to be *Transformative* in our efforts to make the School a place of belonging for people from all backgrounds, to improve the educational, scientific, and socioeconomic outcomes, and thereby change the lives of all members of our community.
- Our approach to all activities is *Student-Centered* we embrace and celebrate our opportunity to prepare the students in our program to become the next generation of leaders in atmospheric science.

# **Table of Contents**

1.	DEGREES AND CURRICULUM	5
	1.1.       BACHELOR OF SCIENCE, METEOROLOGY.         1.1.1.       General Requirements.         1.1.2.       Degree Requirements.         1.1.3.       Math Courses         1.1.4.       Grade Requirements in Courses         1.1.5.       Knowledge Expectations         1.1.6.       Course Sequencing and Timing         1.2.       Accelerated Dual-Degree Programs         1.3.       Minors.         1.3.1.       Meteorology Minor         1.4.       Credit Hours and WorkLoad	5 8 8 9 9 9 9 10 10
2.	ADMISSION AND PREPARATION FOR FIRST ENROLLMENT	12
	<ul> <li>2.1. PRE-COLLEGE PREPARATION.</li> <li>2.2. FRESHMAN ADMISSION.</li> <li>2.2.1. Admission to OU</li></ul>	12 13 13 14 14 14 14 14
	2.5. Admission to Meteorology, B.S./Data Science and Analytics, M.S	
	3.1.       Academic Integrity	16 16 16
4.	DIVERSITY, EQUITY, INCLUSION, AND JUSTICE (DEIJ)	19
	<ul> <li>4.1. Accessibility and Disability Resources</li></ul>	19 19 20
5.	STORM CHASING POLICY	23
6.	STUDENT SCHOLARSHIPS AND AWARDS	24
	<ul> <li>6.3. FINANCIAL AID</li> <li>6.4. OU-SPECIFIC SCHOLARSHIPS</li></ul>	24 24 25
7.	ADVISING, ENROLLMENT, AND MENTORING	28
	<ul> <li>7.3. ACADEMIC ADVISING</li></ul>	28 28 28 29

	6.3.1. New Student Mentoring Program	
	6.3.2. School of Meteorology Mentoring Ecosystem	
	6.3.2. External Mentoring Programs	
7.	IT AND COMPUTING	32
7.	1. Personal Computers and Required Software	32
7.	2. Programing	
7.	3. Computer Labs	
7.	4. Computing Accounts	33
7.	5. Remote Access	33
8.	STUDENT ORGANIZATIONS	
8.	1. OKLAHOMA WEATHER LAB (OWL)	34
	2. OU STUDENT CHAPTER OF THE AMS AND NWA (OU SCAN)	
8.	3. STUDENT AFFAIRS COMMITTEE (SAC)	35
9.	METEOROLOGY STUDY ABROAD EXCHANGE PROGRAMS	
9.	1. ELIGIBILITY	
9.	2. Application Process	
9.	3. FINANCES	
10.	CONFERENCE ATTENDANCE	
11.	INTERNSHIPS, RESEARCH, AND EMPLOYMENT	39
	INTERNSHIPS, RESEARCH, AND EMPLOYMENT 1.1. INTERNSHIPS AND ACADEMIC CREDIT	
1 <sup>7</sup> 1 <sup>7</sup>	1.1. INTERNSHIPS AND ACADEMIC CREDIT	
1 <sup>7</sup> 1 <sup>7</sup> 1 <sup>7</sup>	1.1. INTERNSHIPS AND ACADEMIC CREDIT 1.2. FINDING AN INTERNSHIP 1.3. STUDENT EMPLOYMENT	39 39 40
1 <sup>7</sup> 1 <sup>7</sup> 1 <sup>7</sup>	1.1. INTERNSHIPS AND ACADEMIC CREDIT	39 39 40
1 <sup>7</sup> 1 <sup>7</sup> 1 <sup>7</sup>	1.1. INTERNSHIPS AND ACADEMIC CREDIT 1.2. FINDING AN INTERNSHIP 1.3. STUDENT EMPLOYMENT	
1' 1' 1' 1'	1.1. INTERNSHIPS AND ACADEMIC CREDIT 1.2. FINDING AN INTERNSHIP 1.3. STUDENT EMPLOYMENT 1.4. RESEARCH AND ACADEMIC CREDIT	39 40 40 40
1 <sup>°</sup> 1 <sup>°</sup> 1 <sup>°</sup> 1 <sup>°</sup> 1 <sup>°</sup> 12. 13.	1.1. INTERNSHIPS AND ACADEMIC CREDIT 1.2. FINDING AN INTERNSHIP 1.3. STUDENT EMPLOYMENT 1.4. RESEARCH AND ACADEMIC CREDIT	39 39 40 40 42 42 44
1 <sup>1</sup> 1 <sup>2</sup> 1 <sup>2</sup> 1 <sup>2</sup> 1 <sup>2</sup> 12. 13.	1.1. INTERNSHIPS AND ACADEMIC CREDIT 1.2. FINDING AN INTERNSHIP 1.3. STUDENT EMPLOYMENT 1.4. RESEARCH AND ACADEMIC CREDIT CAREERS RESOURCES FOR STUDENT SUCCESS	
1 <sup>1</sup> 1 <sup>1</sup> 1 <sup>1</sup> 1 <sup>2</sup> 1 <sup>2</sup> 1 <sup>3</sup> 1 <sup>3</sup>	1.1. INTERNSHIPS AND ACADEMIC CREDIT         1.2. FINDING AN INTERNSHIP.         1.3. STUDENT EMPLOYMENT.         1.4. RESEARCH AND ACADEMIC CREDIT         CAREERS         RESOURCES FOR STUDENT SUCCESS         3.1. NWC LIBRARY	
1 <sup>1</sup> 1 <sup>1</sup> 1 <sup>1</sup> 1 <sup>2</sup> 1 <sup>2</sup> 1 <sup>3</sup> 1 <sup>3</sup>	<ul> <li>1.1. INTERNSHIPS AND ACADEMIC CREDIT</li> <li>1.2. FINDING AN INTERNSHIP.</li> <li>1.3. STUDENT EMPLOYMENT.</li> <li>1.4. RESEARCH AND ACADEMIC CREDIT</li> <li>CAREERS</li> <li>RESOURCES FOR STUDENT SUCCESS</li> <li>3.1. NWC LIBRARY</li> <li>3.2. ACADEMIC SUPPORT</li> </ul>	
1 <sup>1</sup> 1 <sup>1</sup> 1 <sup>2</sup> 12. 13. 13. 13. 14.	<ul> <li>1.1. INTERNSHIPS AND ACADEMIC CREDIT</li> <li>1.2. FINDING AN INTERNSHIP.</li> <li>1.3. STUDENT EMPLOYMENT.</li> <li>1.4. RESEARCH AND ACADEMIC CREDIT</li> <li>CAREERS</li> <li>RESOURCES FOR STUDENT SUCCESS.</li> <li>3.1. NWC LIBRARY.</li> <li>3.2. ACADEMIC SUPPORT</li> <li>3.3. FURTHER RESOURCES</li> <li>MWC, CAGS, AND SOM ADMINISTRATION.</li> <li>4.1. THE NATIONAL WEATHER CENTER</li> </ul>	
1 <sup>1</sup> 1 <sup>1</sup> 1 <sup>2</sup> 12. 13. 13. 11 11 12. 14.	<ul> <li>1.1. INTERNSHIPS AND ACADEMIC CREDIT</li> <li>1.2. FINDING AN INTERNSHIP.</li> <li>1.3. STUDENT EMPLOYMENT.</li> <li>1.4. RESEARCH AND ACADEMIC CREDIT</li> <li>CAREERS</li> <li>RESOURCES FOR STUDENT SUCCESS.</li> <li>3.1. NWC LIBRARY.</li> <li>3.2. ACADEMIC SUPPORT</li> <li>3.3. FURTHER RESOURCES</li> <li>MWC, CAGS, AND SOM ADMINISTRATION.</li> <li>4.1. THE NATIONAL WEATHER CENTER</li> <li>4.2. COLLEGE OF ATMOSPHERIC AND GEOGRAPHIC SCIENCES</li> </ul>	
1 <sup>1</sup> 1 <sup>1</sup> 1 <sup>2</sup> 12. 13. 13. 11 11 12. 14.	<ul> <li>1.1. INTERNSHIPS AND ACADEMIC CREDIT</li> <li>1.2. FINDING AN INTERNSHIP.</li> <li>1.3. STUDENT EMPLOYMENT.</li> <li>1.4. RESEARCH AND ACADEMIC CREDIT</li> <li>CAREERS</li> <li>RESOURCES FOR STUDENT SUCCESS.</li> <li>3.1. NWC LIBRARY.</li> <li>3.2. ACADEMIC SUPPORT</li> <li>3.3. FURTHER RESOURCES</li> <li>NWC, CAGS, AND SOM ADMINISTRATION.</li> <li>4.1. THE NATIONAL WEATHER CENTER</li> <li>4.2. COLLEGE OF ATMOSPHERIC AND GEOGRAPHIC SCIENCES .</li> <li>4.3. THE SCHOOL OF METEOROLOGY.</li> </ul>	
1 <sup>1</sup> 1 <sup>1</sup> 1 <sup>2</sup> 12. 13. 13. 11 11 12. 14.	<ul> <li>1.1. INTERNSHIPS AND ACADEMIC CREDIT</li> <li>1.2. FINDING AN INTERNSHIP.</li> <li>1.3. STUDENT EMPLOYMENT.</li> <li>1.4. RESEARCH AND ACADEMIC CREDIT</li> <li>CAREERS</li> <li>RESOURCES FOR STUDENT SUCCESS.</li> <li>3.1. NWC LIBRARY.</li> <li>3.2. ACADEMIC SUPPORT</li> <li>3.3. FURTHER RESOURCES</li> <li>NWC, CAGS, AND SOM ADMINISTRATION.</li> <li>4.1. THE NATIONAL WEATHER CENTER</li> <li>4.2. COLLEGE OF ATMOSPHERIC AND GEOGRAPHIC SCIENCES.</li> <li>4.3. THE SCHOOL OF METEOROLOGY.</li> <li>14.3.1. SoM Directors.</li> </ul>	
1 <sup>1</sup> 1 <sup>1</sup> 1 <sup>2</sup> 12. 13. 13. 11 11 12. 14.	<ul> <li>1.1. INTERNSHIPS AND ACADEMIC CREDIT</li> <li>1.2. FINDING AN INTERNSHIP</li> <li>1.3. STUDENT EMPLOYMENT</li> <li>1.4. RESEARCH AND ACADEMIC CREDIT</li> <li>CAREERS</li> <li>RESOURCES FOR STUDENT SUCCESS</li> <li>3.1. NWC LIBRARY</li> <li>3.2. ACADEMIC SUPPORT</li> <li>3.3. FURTHER RESOURCES</li> <li>NWC, CAGS, AND SOM ADMINISTRATION</li> <li>4.1. THE NATIONAL WEATHER CENTER</li> <li>4.2. COLLEGE OF ATMOSPHERIC AND GEOGRAPHIC SCIENCES</li> <li>4.3. THE SCHOOL OF METEOROLOGY</li> <li>14.3.1. SoM Directors</li> <li>14.3.2. SoM Staff.</li> </ul>	$ \begin{array}{c} 39 \\ 39 \\ 40 \\ 40 \\ 40 \\ 40 \\ 40 \\ 40 \\ 40 \\ 40$
1 <sup>1</sup> 1 <sup>1</sup> 1 <sup>2</sup> 12. 13. 13. 11 11 12. 14.	<ul> <li>1.1. INTERNSHIPS AND ACADEMIC CREDIT</li> <li>1.2. FINDING AN INTERNSHIP.</li> <li>1.3. STUDENT EMPLOYMENT.</li> <li>1.4. RESEARCH AND ACADEMIC CREDIT</li> <li>CAREERS</li> <li>RESOURCES FOR STUDENT SUCCESS.</li> <li>3.1. NWC LIBRARY.</li> <li>3.2. ACADEMIC SUPPORT</li> <li>3.3. FURTHER RESOURCES</li> <li>NWC, CAGS, AND SOM ADMINISTRATION.</li> <li>4.1. THE NATIONAL WEATHER CENTER</li> <li>4.2. COLLEGE OF ATMOSPHERIC AND GEOGRAPHIC SCIENCES.</li> <li>4.3. THE SCHOOL OF METEOROLOGY.</li> <li>14.3.1. SoM Directors.</li> </ul>	$ \begin{array}{c} 39 \\ 39 \\ 40 \\ 40 \\ 40 \\ 40 \\ 40 \\ 40 \\ 40 \\ 40$
1 <sup>1</sup> 1 <sup>1</sup> 1 <sup>2</sup> 12. 13. 13. 11 14. 14. 14	<ul> <li>1.1. INTERNSHIPS AND ACADEMIC CREDIT</li> <li>1.2. FINDING AN INTERNSHIP</li> <li>1.3. STUDENT EMPLOYMENT</li> <li>1.4. RESEARCH AND ACADEMIC CREDIT</li> <li>CAREERS</li> <li>RESOURCES FOR STUDENT SUCCESS</li> <li>3.1. NWC LIBRARY</li> <li>3.2. ACADEMIC SUPPORT</li> <li>3.3. FURTHER RESOURCES</li> <li>NWC, CAGS, AND SOM ADMINISTRATION</li> <li>4.1. THE NATIONAL WEATHER CENTER</li> <li>4.2. COLLEGE OF ATMOSPHERIC AND GEOGRAPHIC SCIENCES</li> <li>4.3. THE SCHOOL OF METEOROLOGY</li> <li>14.3.1. SoM Directors</li> <li>14.3.2. SoM Staff.</li> </ul>	$ \begin{array}{c} 39\\ 39\\ 40\\ 40\\ 40\\ 40\\ 40\\ 40\\ 40\\ 40\\ 42\\ 44\\ 44\\ 44\\ 44\\ 44\\ 44\\ 44\\ 44\\ 44$

# 1. Degrees and Curriculum

The School of Meteorology (<u>SoM</u>) is one of three academic units within the <u>College of</u> <u>Atmospheric and Geographic Sciences</u> (CAGS), the others being the Department of Geography and Environmental Sustainability (<u>DGES</u>), and the <u>School of Aviation</u>. In all our undergraduate programs, students complete a rigorous degree that has been designed to enhance their critical learning skills to prepare them to enter the workforce as a strong competitor or to move on to graduate school.

# 1.1. Bachelor of Science, Meteorology

SoM offers a <u>Bachelor of Science in Meteorology</u> (Meteorology, B.S.) that can be earned in four years (eight semesters). Upon completing the program, students will:

- demonstrate knowledge of the fundamental principles governing the atmosphere and the characteristic atmospheric processes across spatial and temporal scales;
- apply critical and analytical thinking to solve scientific problems in individual and collaborative settings;
- effectively communicate information in oral and written form at an appropriate level for their audience;
- be equipped with the skills necessary to pursue a career across the weather, water, and climate enterprise and related fields, including the private sector, government, broadcast meteorology, graduate school, and beyond;
- be eligible for the rating of meteorologist given by the United States Civil Service Commission, e.g., meet requirements for the National Weather Service meteorologist;
- demonstrate computational problem-solving skills, and participate in scientific research through a capstone experience;
- experience and network across the weather, water, and climate enterprise including those entities housed within the National Weather Center and OU Research Campus
- adopt the principles of proper ethical behavior; value justice, equity, diversity, and inclusion, and understand the broader impacts of the atmospheric sciences on society.

# 1.1.1. General Requirements

The degree has the following general requirements that fulfill OU's requirements for graduation:

- Minimum 120 credit hours must be earned toward graduation
- Minimum 40 General Education ("Gen Ed") credit hours distributed among five core areas
- Minimum 52 upper-division (courses numbered 3000+) credit hours, with at least one course (minimum 3 credit hours) outside of the student's major
- Minimum 60 credit hours must be earned at senior (4-year) institutions
- At least 36 of the last 48 credit hours must be completed in residence at OU
- Minimum two semesters in residence in A&GS
- Minimum 2.25 GPA both overall and for major courses (for OU and combined with grades from other institutions)

# 1.1.2. Degree Requirements

All degree requirements, including an example semester-by-semester plan for completing the meteorology degree, can be found on the Meteorology, BS <u>checksheet</u>. Here we expand on the

checksheet and provide further details on required courses, key milestones for progress in the degree, and course scheduling.

The degree requires 15 core courses (48 credit hours) described in the table below. Also included are the semester(s) that the course is offered. **Note that most METR courses are only offered once per year.** Students should consult the class schedule and check pre-requisites when making course plans

Course	Title	Hours	Semester Offered
METR 1003	Introduction the Atmospheric Sciences	3	Fall, Spring, Summer
METR 2004	Atmospheric Circulations	4	Fall, Spring
METR 2213	Physical Meteorology I: Thermodynamics	3	Spring
METR 2613	Atmospheric In-Situ and Surface-Based Measurements	3	Spring
METR 3113	Atmospheric Dynamics I: Introduction to Atmospheric Kinematics/Dynamics	3	Fall
METR 3123	Atmospheric Dynamics II: Theory of Atmospheric Flows	3	Spring
METR 3223	Physical Meteorology II: Cloud Physics, Atmos Electricity/Optics	3	Spring
METR 3334	Principles of Research & Communication in Meteorology	4	Spring
METR 3513	Atmospheric Chemistry in Weather and Climate	3	Fall
METR 4133	Atmospheric Dynamics III: Mid-Latitude Synoptic-Scale Dynamics	3	Fall
METR 4233	Physical Meteorology III: Radiation and Remote Sensing	3	Fall
METR 4424	Synoptic Meteorology Laboratory	4	Fall
METR 4433	Mesoscale Meteorology	3	Spring
METR 4523	Climate and the General Circulation	3	Spring
METR 4913	Senior Seminar (Capstone)	3	Spring

An additional 3 credit hour upper-level elective in meteorology, hydrology, or climatology must be chosen from the Meteorology Upper-Division Major Elective <u>Course List</u>. Students should consult their academic advisors and mentors (see Section 6.1) who can give guidance on which electives may be most beneficial for students' career goals and ambitions. The list below includes some of our regularly offered electives and the semester that they are taught. Note that this list is not comprehensive of all electives offered.

*Fall Semester:* METR 3523 Managing for a Changing Climate, METR 4533 Earth's Past Climate, METR 4663 Radar Engineering, METR 4713 Private Sector Meteorology

*Spring Semester:* METR 3011 Broadcast Meteorology Practicum, METR 4623 Radar Meteorology, METR 4793 Applications of Weather Forecasting, METR 4403 Severe Thunderstorm Forecasting, METR 4443 Introduction to Tropical Meteorology, METR 4553 Climate and Renewable Energy, METR 4633 Hydrometeorology Free electives can be used otherwise to meet requirements, including for minors, but they must include at least 9 credit hours of upper-division coursework to ensure the required 52-hours of upper division coursework.

Course	Title	Hours	Semester Offered
MATH 2934*	Differential and Integral Calculus III	4	Fall, Spring, Summer
PHYS 1311	General Physics Lab 1	1	Fall, Spring, Summer
MATH 3413	Physical Mathematics I	3	Fall, Spring, Summer
METR 3323 or MATH 4753	Statistical Meteorology or Applied Statistical Methods	3	Fall Fall, Spring, Summer

Furthermore, five courses (11-14\* credit hours) are required to support major courses.

\*See Section 1.1.3 on calculus sequence

Programming elective – choose one of the following courses:

Course	Title	Hours	Semester Offered
METR 1313	Introduction to Programming for Meteorology	3	Fall & Spring
CS 1321^	Java for Programmers	1	Fall, Spring, Summer
CS 1323^	Introduction to Computer Programming for Programmers	3	Fall, Spring, Summer
CS 1324^	Introduction to Computer Programming for Non- Programmers	4	Fall & Spring

^ In order to enroll in one of these C S courses, students must take a placement quiz. After the quiz, students will be emailed in about a week with their results and course permissions.

CAGS also requires the following courses:

Course	Title	Hours	Semester Offered
MATH 2924*	Differential and Integral Calculus II	4	Fall, Spring, Summer
PHYS 2524	General Physics for Engineering and Science Majors	4	Fall, Spring, Summer

\*See Section 1.1.3 on calculus sequence

All majors must fulfill <u>OU's requirement</u> of a minimum of 40 credit hours of <u>General Education</u> (<u>"Gen Ed"</u>) courses in the following five core areas. Courses used for required major support may not be used to also fulfill OU's General Education requirements.

# Symbolic and Oral Communication

- English Composition, 2 courses, 6 credit hours
- Foreign Language\*\*, 2 courses, 6-10 credit hours
- MATH 1914: Differential and Integral Calculus I, 4 credit hours

\*\*The Foreign Language requirement can be met by successfully completing two semesters of the same foreign language at the college level equivalent to two semesters at OU. It also may be satisfied by successfully completing two years of the same foreign language in high school. **Natural Science** 

• CHEM 1315: General Chemistry (with lab), 5 credit hours

• PHYS 2514: General Physics for Engineering and Science Majors, 4 credit hours

# Social Science

- PSC 1113: American Federal Government, 3 credit hours
- Other (choose from <u>Gen Ed list</u>), 1 course, 3 credit hours

# **Humanities**

- Artistic Forms (choose from <u>Gen Ed</u> list), 1 course, 3 credit hours
- HIST 1483: United States to 1865 or HIST 1493: United States, 1865 to the Present, 1 course, 3 credit hours
- Other Western Culture (choose from Gen Ed list), 1 course, 3 credit hours
- World Culture (choose from Gen Ed list), 1 course, 3 credit hours

# First Year Experience

• UCOL 1523 Gateway to Belonging or UCOL 1533 Global Perspectives and Engagement or UCOL 1543 Ethical and Intercultural Leadership, 1 course, 3 credit hours

# 1.1.3. Math Courses

The above tables reference the 3-course calculus sequence consisting of:

MATH 1914 (Differential and Integral Calculus I)

MATH 2924 (Differential and Integral Calculus II)

MATH 2934 (Differential and Integral Calculus III)

each of which is 4 credit hours, for a total of 12 credit hours of calculus.

This sequence can be replaced with the 4-course calculus sequence consisting of:

MATH 1823 (Calculus and Analytic Geometry I)

MATH 2423 (Calculus and Analytic Geometry II)

MATH 2433 (Calculus and Analytic Geometry III)

MATH 2443 (Calculus and Analytic Geometry IV)

each of which is 3 credit hours, for a total of 12 credit hours of calculus.

Both sequences cover all the necessary material and data over the last 5+ years shows no significant difference in outcomes for Meteorology students related to which Calculus sequence they complete.

You must complete MATH 2934 or MATH 2443 no later than the summer before you begin your junior year meteorology courses and MATH 3413 no later than Fall of your junior year meteorology courses.

# 1.1.4. Grade Requirements in Courses

All courses that are direct pre-requisites for METR courses must be completed with a grade of C or better, this is often referred to as the "C-Rule". This includes the following courses:

MATH 1823, 2423, 2433, 2443 or 1914, 2924, 2934

MATH 3413 PHYS 2514, 1311, 2524 CHEM 1315 METR 1313 or CS 1321 or 1323 or 1324

The C-Rule also applies to all core METR classes, except for those that are not direct prerequisites for other courses which currently includes METR 4913, 4433, and 4523.

#### 1.1.5. Knowledge Expectations

All core METR courses in the curriculum have a set of **knowledge expectations**. These documents describe the principal concepts, technical skills, and fundamental understanding that all students are expected to possess upon completing specific courses. The <u>knowledge</u> <u>expectations</u> can be found on our website.

#### 1.1.6. Course Sequencing and Timing

To earn a BS in Meteorology it is important that you are aware of pre-requisites for all classes. These can be found via <u>OUs general catalog</u>. As noted in the tables above, with the exception of 1000-level courses, currently all METR courses are only offered once per year. As such, and due to the sequencing of courses that build upon each other, not obtaining the required C in courses (Section 1.1.4) can lead to the degree taking more than 4 years to complete.

The first Meteorology course in the curriculum is METR 1003 (Section 1.1.2). To enroll in this course, students must be also enrolled in at least Calculus I, either MATH 1914 or MATH 1823.

Freshmen students can take METR 1313 in the fall or spring, if they meet the minimum prerequisite of MATH 1523 (or equivalent or concurrent enrollment; or placement into MATH 1743 or MATH 1823 or higher and departmental permission). Students may also take CS 1321, 1323, or 1324 to meet this requirement.

#### Important milestones

You must complete...

Your introductory programming course (METR 1313 or CS 1321, 1323, or 1324) and meteorology course (METR 1003) no later than the summer of your freshman year meteorology courses.

PHYS 2524 no later than the Fall of your sophomore year meteorology courses.

MATH 2934 or MATH 2443 no later than the summer before you begin your junior year meteorology courses.

MATH 3413 no later than the Fall of your junior year meteorology courses

#### 1.2. Accelerated Dual-Degree Programs

Due to needs in the private sector for graduates with business and data science skills, and in collaboration with the <u>Price College of Business</u> and the <u>Gallogly College of Engineering</u>, respectively, SoM offers accelerated dual-degree programs ("4 + 1" programs) that enable

students to earn a Meteorology B.S. and a graduate degree sequentially in five years. Checksheets and semester-by-semester plans can be found at the following links.

- Meteorology, B.S./M.B.A.
- Meteorology, B.S./Data Science and Analytics, M.S.

Students can apply for these programs in their junior year. Students take all the courses required for the Bachelor of Science in Meteorology outlined in Section 1.1. In addition, they take courses that count toward both degrees in their fourth year and graduate courses in their fifth year. Details about admission to these programs can be found in Section 2.4.

# 1.3. Minors

A minor is not required as part of the meteorology degree program, but a variety of minors exist that complement a meteorology degree. Some highly relevant and popular minors are listed below, although students can pursue any\* minor offered at OU, or none at all. If a student is planning on taking more than one minor, they should know that a given class cannot be used to satisfy requirements for two different minors. Minors are declared through the College that they are offered.

- The <u>Broadcast Meteorology</u> minor is offered by the College of Journalism and Mass Communication only to meteorology majors and is earned by taking 17 credit hours in communication courses concurrently with major courses. Students must complete the LST/AIT exams prior to enrolling in JMC 2033.
- The <u>Mathematics</u> minor can be earned by completing both MATH 4753 and a 4000-level math course as an upper division elective. A popular elective choice that also may support graduate school requirements is Partial Differential Equations.
- <u>Computer Science</u>. Students interested in a computer science minor are recommended to take CS 1323 or CS 1324 to ensure they have the necessary pre-requisites for later computer science courses.
- <u>Geographic Information Systems (GIS)</u>. Students pursuing degrees in geographic information science (GIS) use data to map, model, and analyze various problems related to geography and meteorology.
- <u>Climate Adaptation</u>. This minor explores climate change adaptation from an interdisciplinary perspective.

# 1.3.1. Meteorology Minor

SoM offers a minor in <u>Meteorology</u> that is not available to meteorology majors. The meteorology minor consists of 16 credit hours in meteorology courses, with 9-hours at the upper division. Students taking courses for the minor must adhere to the course pre-reqs as set by SoM. A minimum of 2.25 GPA is required in all work presented for minor credit.

Required courses of Meteorology minor: METR 1003 Introduction to Atmospheric Sciences METR 2004 Atmospheric Circulations 9-hours of upper division meteorology courses

# 1.4. Credit Hours and Workload

Most METR courses are 3-credit hours. In general, this means either 3 x 50 minute class periods per week or 2 x 1 hour 15 minute class periods.

In addition to in-class time a student is EXPECTED to study for a minimum of 2 hours outside of class for every one hour spent in class. This includes studying for exams, completing homework or quizzes or projects, reading textbooks, rewriting notes, preparing for a lecture etc. This is a federal requirement for credit hours.

For a 3-credit class, the average time spent per week is:

3 hours in class contact hours 6-9 hours of independent work outside of class 9-12 hours per week total

Courses that do not have the required face-to-face contact time (for example, hybrid or online courses) still meet the total hour standard. For hybrid and online courses the in-class and out-of-class hour divide would be different. The course covers the same material in the same depth as a face-to-face version of the same course.

If you take 15-hours in a semester your total workload would be: 15 hours in-class <u>30-45 hours out of class</u> **45-60 hours per week total** 

# 2. Admission and Preparation for First Enrollment

#### 2.1. Pre-College Preparation

No prior meteorology, atmospheric science, or climate knowledge is required upon beginning a meteorology degree at OU. Your core courses are designed to introduce meteorological concepts and build upon them throughout the program.

In preparation for the curriculum, which necessarily requires math and physics courses, consider the course requirements (Section 1.1.) and try to take classes in high school that will support them. Students will benefit by taking as many math courses as possible in high school, especially in algebra and calculus. Additionally, if your school offers them, take high school courses in physics, chemistry, and computer science. You can be successful in the program if you are unable to take these classes in high school, but it may require longer than 4 years (8 semesters), or several summer semesters, to complete your degree if you cannot begin the calculus sequence upon entering OU.

OU's foreign language General Education requirement can be met by completing two years of the same foreign language in high school with grades of at least C.

Furthermore, consider taking AP or concurrent enrollment courses to earn college credit if available to you. Students who score 3 or above on an Advanced Placement (AP) test may receive college credit. See OU's <u>page</u> on AP credit for more information.

OU awards college credit for certain College Level Examination Program (CLEP) subject examinations meeting minimum scores. See OU's <u>page</u> on CLEP credit for more information.

OU may award college credit to students who have taken higher-level courses in the International Baccalaureate (IB) Program and scored 4 or above on the course examination. See OU's <u>page</u> on IB credit for more information.

Gradually increase your study time in your courses and refine your time management skills. All of these actions help students prepare for college and the meteorology program.

# 2.2. Freshman Admission

#### 2.2.1. Admission to OU

Prospective students should visit OU's <u>Freshman Admission</u> page for details on how and by when to apply to the University and what supporting documents must be submitted. Freshman Admission for the Fall semester proceeds according to the following deadlines:

- 1 August: Admission application opens
- 1 October: FAFSA opens for Fall
- 1 November: Early action admission deadline
- 15 December: Final scholarship admission deadline
- 1 February: Final admission deadline

Note that, through Fall 2025, submitting ACT and/or SAT scores is optional. When deciding whether to take and submit scores for these tests, consider how they will help you be competitive for <u>OU Incoming student scholarships</u> (scores are encouraged for scholarship consideration), if they will help your holistic application, and how they will help you place into accurate courses. ACT and/or SAT scores are not required for scholarships and tuition waivers awarded by SoM.

While there is no minimum GPA requirement for admission, high school GPA is the most significant factor in determining admission. Freshmen must meet the minimum high school curricular requirements for college preparatory (core) coursework, although a more rigorous selection is recommended, especially for math and science.

# 2.2.2. Admission to the School of Meteorology There is no additional admission process for the School of Meteorology.

Students can declare a meteorology major when they enter OU, or at any time during their freshmen year, and non-transfer students can be admitted into the College of Atmospheric and Geographic Sciences when they complete at least 24 credit hours with a minimum 2.25 GPA.

# 2.3. Transfer Admission

Transfer students are defined as those who have attended an accredited college or university and successfully completed at least 7 credit hours post-high school graduation. This excludes remedial (pre-college) work or credit hours earned while concurrently enrolled in high school

SoM welcomes transfer students from junior colleges, community colleges, and other universities. Students preparing to transfer are encouraged to inspect the <u>Meteorology, B.S.</u> requirements (Section 1.1). It is recommended that transfer students visit (in person or virtually) CAGS prior to choosing to come to OU. To schedule a visit, please email the SoM Academic Advisor (contact information at the end of this document).

It's important for transfer students to understand the commitment they're making and the potential careers available to them in Meteorology and be familiar with the Undergraduate Handbook. It's important for all students to understand that the Meteorology degree program builds one class upon another; regardless of the amount of AP, dual credit, transfer, or prior degree, *it will take a minimum of three years to complete this program as a transfer student* (unless you are transferring from a meteorology program at another institution).

# 2.3.1. Admission to OU

See OU's <u>Transfer Admission</u> page for details on how and by when to apply to the University and what supporting documents must be submitted. Transfer students with less than 24 non-remedial credit hours must additionally meet the direct from high school admission requirements.

Transfer Admission proceeds according to the following deadlines:

- 1 August: Fall and Summer application opens
- 1 October: Spring priority scholarship deadline
- 1 November: Spring application deadline
- 1 March: Summer/Fall priority scholarship deadline
- 1 April: Summer application deadline
- 1 June: Fall application deadline and Spring application opens
- 1 July: Fall documents deadline

An important event for transfer students is Transfer Student Day, which typically takes place in March. This event allows transfer students to take care of all university business (bursar, financial aid, student ID, housing, testing, advising, enrollment, etc.) in one day. Participants are also granted early-enrollment status. Registration is required.

Admitted incoming transfer students can also attend Sooner Saturday, which is an in-person open house where students can tour campus, meet with those in their college and program of interest, engage with student organizations, etc. See the <u>events</u> page for dates and registration.

Admitted incoming transfer students from Oklahoma City Community College, Tulsa Community College, and Rose State can attend Transfer Connect Virtual 1:1 events to meet with OU Transfer Admission Counselors to learn about transfer scholarships, campus involvement, and more. See the <u>events</u> page for college-specific dates.

# 2.3.2. Admission to the School of Meteorology

Transfer students with at least 24 non-remedial credit hours must meet CAGS requirement of at least a 2.50 GPA to be assured direct admission to the College. Upon admission to the College, initial advising for transfer students is done at the College level. During their first semester at OU, transfer students will be assigned an academic advisor (Section 6.1.3).

# 2.3.3. Transferring Courses

It is important to work with CAGS to ensure the best possible outcome when transferring classes in. To determine if and how classes will transfer to OU, the Office of Admissions and Recruitment will evaluate your credits. In the meantime, you can estimate what will transfer using the <u>OU Transfer Equivalence Database</u>. Be aware that not every class will transfer smoothly. If there are courses that don't automatically transfer, students can obtain syllabi and have the course reviewed.

SoM encourages students to try to complete all calculus coursework at one institution. Therefore, if a student is going to start calculus at another institution, it is best for them to make arrangements to complete all of their calculus there.

# 2.3.3. Transferring from Rose State College

SoM has a partnership with <u>Rose State College</u> and the <u>Geosciences Associate in Science</u> <u>Degree with an atmospheric science emphasis</u>. This partnership enables a smooth transfer pathway to the meteorology degree at OU. Students at Rose State are able to take courses in meteorology and receive credit for METR 1003, METR 1313, and METR 2004 enabling students to reduce the time spent at OU to 2.5 years (or 5 semesters), starting in Spring "sophomore" year where they can enroll at Rose State and OU.

# 2.4. Admission to the Meteorology, B.S./M.B.A.

In collaboration with the <u>Price College of Business</u>, meteorology majors can apply to the accelerated five-year dual-degree <u>program</u> about halfway through their junior year. Minimum admission requirements include:

- Undergraduate OU student majoring in Meteorology
- Maintain OU retention GPA and combined retention GPA of 3.0 or above
- Junior standing in Meteorology
- Completed at least 12 credit hours of Meteorology courses at OU

The initial application must be completed by December 15<sup>th</sup> of junior year. <u>B.S./M.B.A.</u> <u>Application</u>.

- Spring (sophomore year)/Fall (junior year) Representatives from the MBA office hold information session with prospective/interested students. The information session covers: application process and MBA program requirements with all prospective applicants.
- Applicants submits application for accelerated program by December 15<sup>th</sup> of junior year for fall admission. This includes the supplemental application form, a statement of purpose explaining your career goals and interest in graduate business education, and a resume.
- Directors of Meteorology program select students they want to refer to the MBA program from list of applications.
- Applications are sent to MBA Office for formal review/consideration.
- Students need to take GMAT/GRE before MBA Admission committee can review application.
- After MBA Admission Committee Review: Student may be contacted for admissions interview (required for admission consideration).

# 2.5. Admission to Meteorology, B.S./Data Science and Analytics, M.S.

In collaboration with the <u>Gallogly College of Engineering Data Science and Analytics Institute</u>, meteorology majors can apply to this accelerated five-year dual-degree <u>program</u> prior to their senior year if they meet the following requirements:

- Minimum 3.0 GPA overall (for OU and combined with grades from other institutions)
- Successfully completed at least 12 credit hours of ISE, CS, or METR courses at OU
- Successfully completed prerequisite courses (MATH 1914, MATH 2924, MATH 3333, CS1323, and CS 2334).

Most notable is the importance of the freshmen-level programming courses, i.e. CS 132X, to set students on the right track for this program. Much of the M.S. program can be completed online.

The admission process should be completed by June 1st prior to senior year. Students submit a completed application form and following documents to the Academic Programs Coordinator in CEC 409 or emailed to datascience@ou.edu:

- "My Degree Navigator Record"
- Statement of purpose
- Two letters of recommendation from OU Faculty/Instructors
- Completed Accelerated Degree Graduate Coursework Plan (ADP)
- <u>Accelerated Program Application</u>

# 3. Code of Conduct

All students should be familiar with OU's Student Rights and Responsibilities Code.

Enrollment in the University creates special obligations beyond that attendant upon membership in general society. In addition to the requirement of compliance with all applicable laws and regulations, the student assumes the obligation to comply with all applicable University and College regulations.

Faculty responsibilities, including academic responsibilities are addressed in Section 3 of the Faculty Handbook.

#### 3.1. Academic Integrity

It is the mission of the University of Oklahoma to create an academic culture that fosters student integrity both in and out of the classroom. Students must be familiar with the <u>Academic Integrity</u> <u>code</u>, which will be always upheld in SoM.

# 3.2. NWC Protocol

All students are required to abide by the <u>National Weather Center Protocol</u> while participating in any NWC and/or SoM-related activities within and outside of the NWC. Students and their guests must follow the expected behaviors such as being considerate, respectful, and collaborative of others and following OU's Student Rights and Responsibilities Code (Section 3.1). Examples of unexpected behaviors are harassment, intimidation, or discrimination in any form. In cases where the NWC policies are violated, the NWC Director, NWC security/local police may take any necessary actions such as removing and prohibiting future attendance to NWC-related activities.

# 3.3. Reporting

It is the responsibility of all who are potential parties or witnesses to an alleged violation of the Student Code of Conduct to participate in the conduct process. Students have a duty to cooperate and discuss the incident with appropriate University officials, adhere to stated deadlines, attend scheduled meetings, provide documentation as requested and participate in all proceedings. Failure to meet these duties may result in a decision being made without the benefit of the student's participation or may result in a student being charged with failing to comply with the direction of a University official.

When a student witnesses any unexpected behaviors, such incidents should be reported by one or more of the following methods:

1) OU Report It! OU 24-Hour Reporting Hotline: call 844-428-6531 or going online to <u>www.ou.ethicspoint.com</u>.

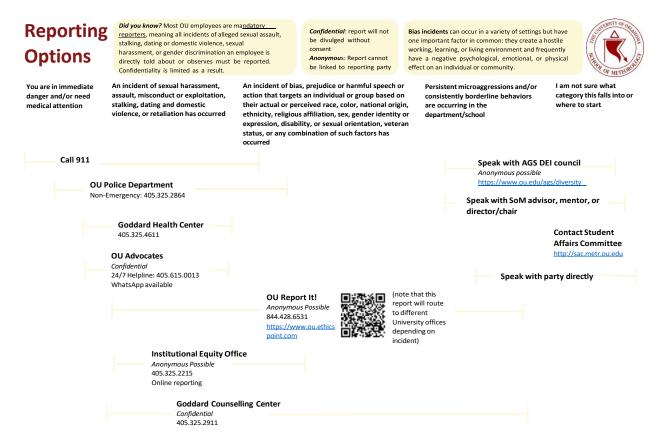
The OU Report It! hotline enables reporting of concerns related, but not limited, to human resources, academics, safety, student affairs, accounting and financial, regulatory/policy compliance, institution equity, athletics, and research. You can also "Follow Up On A Report" via the OU Report It! Website.

2) OU Online Reporting of Student Misconduct, Student Housing Incident, Behavior Intervention, and Sexual Misconduct, Harassment, and Discrimination: <a href="https://www.ou.edu/studentconduct/report-an-incident">https://www.ou.edu/studentconduct/report-an-incident</a>

3) OU 24-hour Confidential Reporting Resources (OU Advocates): call 405-615-0013

Faculty and most OU employees are Mandatory Reporters. When they become aware of any alleged act of sexual assault, stalking, dating or domestic violence, sexual harassment, or gender discrimination, they must report the incidents to the Sexual Misconduct Office (405-325-2251, <u>smo@ou.edu</u>).

SoM has created this helpful reporting infographic for how and where to report incidents.



# 3.4. Safety

# Safety in the NWC:

- 24/7 on-site OU Police Department Security Staff (405-325-1157)
- Identified Best Available Refuge Areas during severe weather located in 1313 and 1350.
- Public Address system and phone/zone paging intercom system.
- Fire, Tornado, and Shelter in-place drills are conducted annually.
- NWC Emergency Response Plan available in the AGS Dean's Office.
- Blue Lights located around facility Intercom to OU PD Radio contact with security guards.
- Defibrillators & Bleeding Control Kits located on each floor next to Atrium Elevators.

• First Aid Kit at Security guard desk.

**<u>SafeWalk</u>**: This free service utilizes resident advisers or police officers to accompany members of the university community anywhere on campus.

• Norman Campus: SafeWalk is available from 8 p.m. to 2 a.m. seven days a week. Call (405) 325-WALK.

<u>SafeRide</u>: This program provides safe, free transportation to OU students within the Norman city limits – no questions asked. SafeRide operates every weekend (Thursday, Friday, and Saturday) from 10 p.m. to 3 a.m.

# 4. Diversity, Equity, Inclusion, and Justice (DEIJ)

SoM is committed to providing a place where people from all backgrounds can have an inclusive place to learn, research, and grow. Promoting a culture across our community that fosters diversity, equity, inclusion, and justice (DEIJ) is a core goal of our most recent strategic plan. The primary aim of the cultural fluency goal is a fundamental transformation of the culture of SoM towards becoming an anti-racist and non-discriminatory environment for people from all backgrounds. We envision an equitable, inclusive culture that intentionally supports SoM community members from historically underserved and underrepresented backgrounds, while also celebrating the various enhancing contributions from such community members to the scientific and educational experience. Creating mutually beneficial outcomes to the community's activities and its members alike. This goal is also fully aligned with pillar 4 in OU's strategic plan, i.e., "become a place of belonging and emotional growth for all students, faculty, staff and alumni".

# 4.1. Accessibility and Disability Resources

The School of Meteorology complies with all federal laws and university diversity resource policies. We recommend all students who require accommodations to work with OUs <u>Accessibility and Disability Resource Center</u>.

We have partnered with the National Weather Center Library to provide a satellite testing space for our students in the NWC.

# 4.2. OU Resources and Opportunities

- The College of Atmospheric and Geographic Sciences <u>Diversity, Equity, and Inclusion</u> <u>Council</u>: The mission of DEI council is to foster cultural competence and proficiency among all students, staff, and faculty in A&GS, and an environment where all feel fully accepted, supported, and valued.
- <u>LAMINAR</u>: LAMINAR strives to provide resources and connections to students, faculty, and staff here within the College of Atmospheric & Geographic Sciences who are a part of the LGBTQIA+ community as well as their allies.
- <u>MANRRS</u>: Minorities in Agriculture, Natural Resources and Related Sciences. To promote academic and professional advancement by empowering minorities in agriculture, natural resources, and related sciences.
- OU <u>Division of Diversity, Equity, and Inclusion</u>: Its mission is to enhance OU's commitment to diversity, equity and inclusion, to recognize and respect the essential worth of each individual and to value differences amongst groups. We commit to building a welcoming and supportive campus environment where each individual feels welcomed, valued, and supported for success
- The <u>OU Native Nations Center</u> is a research and policy institute situated within the Office of Tribal Relations in the Office of the President.
- <u>OU Gender and Equality Center</u>: The mission of the Gender + Equality Center is to cultivate an affirming, educational, and diverse community by focusing on LGBTQ+ inclusion, interpersonal violence prevention, and advocacy for victims of gender-based violence. Information and resources regarding gender identity, sexual identity, name change, spirituality, University and Local offices, and national resources on their resources page.

- <u>International Student Services</u> provides services to international students including student visas and US immigration regulations, as well as activities and programs to help students get involved in the international, OU, and local communities.
- OU's <u>McNair Scholar program</u> provides encouragement, guidance, and mentorship to underrepresented juniors and seniors in preparation for graduate school. It is designed to encourage students from groups often underrepresented in graduate programs to pursue doctoral degrees. \*Students currently underrepresented in higher education are those who are first generation AND receive the maximum Pell grant OR students from African American/Black, Chicana/o/x/Hispanic/Latina/o/x, Native American, Native Hawaiian, or Native Pacific Islander backgrounds. First generation students are those whose parents have not earned a bachelor's degree (an associates or some college is fine).
- <u>OK-LSAMP STEM</u>: The Oklahoma Louis Stokes Alliance for Minority Participation in Science, Technology, Engineering, and Mathematics (OK-LSAMP STEM) is funded by the National Science Foundation. This grant program is an opportunity for qualifying meteorology majors to participate in research with a faculty member in their area of interest during the school year. Oklahoma State University in Stillwater, OK is the lead institution for the program and currently houses the OK-LSAMP office.
- Multicultural Programs and Services (MCPS) offers several programs a year cultural and intercultural celebrations, heritage and awareness events, dialogues, workshops, student leadership and cohort meetings, prejudice-reduction trainings, wellness initiatives and Social Justice Engagement opportunities - all focused on teaching students personal and interpersonal skills necessary to be most effective in a diverse world. MCPS welcomes ALL students, faculty, staff and community members to our events while at the same time supporting and celebrating specific constituency groups (including African American, Asian American, American Indian/Indigenous, and Hispanic/Latino communities).
  - o African American Programs & Services
  - o American Indian Programs & Services
  - Asian American Programs & Services
  - o Latino Programs & Services

# 4.3. External Resources and Opportunities

Here we include some resources and opportunities external to OU that are available for students from underrepresented backgrounds. This list is by no means fully comprehensive, and students should also explore the scholarship and awards presented in Section 5 and the Resources for Student Success in Section 13.

# Funding and Opportunities:

- <u>SOARS</u>: Significant Opportunities in Atmospheric Research and Science. An undergraduate-to-graduate bridge program designed broaden participation of historically underrepresented communities in the atmospheric and related sciences. The program is designed to promote and support research, mentoring, and community. SOARS participants, called protégés, spend up to four summers doing research in atmospheric and related sciences. SOARS offers comprehensive financial support for summer research, as well as undergraduate and graduate school funding.
- The <u>Gates Millennium Scholars (GMS) Program</u>, funded by a grant from the Bill & Melinda Gates Foundation, was established in 1999 to provide outstanding African American, American Indian/Alaska Native, Asian Pacific Islander American, and

Hispanic American students with an opportunity to complete an undergraduate college education in any discipline area of interest. Continuing Gates Millennium Scholars may request funding for a graduate degree program in one of the following discipline areas: computer science, education, engineering, library science, mathematics, public health or science.

- <u>American Meteorological Society Scholarship for Underserved Communities</u>: These AMS Scholarships will award funding to students who have been traditionally underrepresented in the sciences, especially Hispanic, Native American, and Black/African American students.
- <u>National Weather Association David Sankey Minority Scholarship in Meteorology</u>: The fund was established in 2002 to aid minority students in their sophomore year or higher of undergraduate study, or in graduate study, enrolled in a program of meteorology or atmospheric science (or related field).
- <u>Native Forward Scholars Fund</u> The Native Forward Scholars fund provides fellowships to undergraduate students with a demonstrated tribal affiliation each year.
- <u>American Indian Science and Engineering Society (AISES) Scholarships</u> AISES offers several fellowships to students in STEM fields.
- <u>National Hispanic Scholarship Fund</u> provides grants for Hispanic undergraduate students and a scholarship search function for other scholarships.
- The <u>AGU Bridge Program</u> increases opportunities for students from underrepresented populations to obtain graduate degrees and create a network of peers, mentors and advisers to support and serve them before, during and after grad school. The program is open to those who have not applied to graduate school <u>or</u> those who applied and were not accepted.
- The <u>oSTEM scholarship program</u> has numerous scholarships that members of the LGBTQ+ STEM community can apply for.
- <u>Immigrants Rising</u> has created a list of scholarships and fellowships that do not require US citizenship.

# Affinity Groups and Organizations:

Many of the following groups also provide mentoring, networking, and scholarship opportunities.

- American Meteorological Society Board on Representation, Accessibility, Inclusivity, and Diversity (<u>BRAID</u>).
  - Latinx Committee
  - Women in the Atmospheric Sciences
  - Coriolis (LGBTQ friends and allies)
  - o Accessibility Action and Planning committee
- GeoLatinas
- American Indian Science and Engineering Society (AISES)
- National Association of Black Geoscientists (NABG)
- Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS)
- Society of Mexican American Engineers and Scientists (MAES)
- Black in Geoscience (BiG)
- Earth Science Women's Network (ESWN)
- Out in Science, Technology, Engineering, and Mathematics (<u>oSTEM</u>)

Norman and Greater Oklahoma City Community Resources

- <u>City of Norman Inclusive communities</u>
- City of Norman Chief Diversity and Equity Officer Contact form
- Greater Oklahoma City <u>Hispanic Chamber of Commerce</u>
- Oklahoma City <u>Black Chamber of Commerce</u>
- OKC Black Eats
- Urban League of Greater Oklahoma City
- Oklahoma Black History
- Oklahoma <u>Black Business Directory</u>
- Non-comprehensive list of local black-owned businesses
- LGBTQ+ <u>Travel in OKC</u>
- OKC Pride Alliance
- The Gayly
- LGBTQ+ City of Norman
  - LGBTQ+ Police Liaison
     Officer Michael Robertson
     <u>michael.robertson@normanok.gov</u>
     (405) 366-5341, ext. 6511
  - LGBTQ+ Executive Liaison
     Chief Diversity and Equity Cinthya Allen cinthya.allen@normanok.gov (405) 366-5466
- <u>PFLAG</u> Norman: Includes numerous links to other resources including counseling, financial services, legal services, medical, mental health, LGBTQ+ friendly churches, and more
- Norman Pride
- <u>Diversity Center of Oklahoma:</u> Mental health services for the Gender Diverse community and their families.

# 4.4. Reporting and Safety

The National Weather Center is staffed by OU Police Department security officers 24/7 (405-325-1157) and all personnel are required to display OU or NOAA credentials at all times. Field and research documents that address safety issues related to race, ethnicity, and other underrepresented identities are being developed.

The reporting options infographic in Section 3.3 includes information for reporting incidents of bias, microaggressions, and more.

## 5. Storm Chasing Policy

The University of Oklahoma's College of Atmospheric and Geographic Sciences does not condone or encourage storm chasing by students. Anyone who chooses to chase storms does so at their own risk and should not imply that their activities are connected with the University. The only possible exception is when students are officially included in storm intercept activities conducted as part of well-planned and safety-trained scientific projects lead by faculty or scientists in the National Weather Center research units. Storm chasing is not part of the School of Meteorology course curriculum nor should such activities take precedence over the academic activities of the School such as coursework and attending classes and seminars.

# 6. Student Scholarships and Awards

There are seven main ways meteorology majors at fund their college educations:

- Financial Aid
- OU-Specific Scholarships
- SoM Tuition Waivers
- Annual SoM Student Awards/Scholarships
- External Meteorology and STEM Scholarships
- Student Employment and Internships (Section 11)
- Personal and family funds

The information and resources here are a guide to the most common possible funding sources to explore. They should not be considered fully comprehensive.

# 6.3. Financial Aid

**FAFSA:** Free Application for Federal Student Aid. It is important all students complete a FAFSA, regardless of family income level, because many scholarships will require a student to have a FAFSA on file in order to be considered for that scholarship. More information about the FAFSA can be found through OU's <u>Student Financial Center</u>.

# 6.4. OU-Specific Scholarships

**CASH**: Centralized Academic Scholarship Hub. CASH is where current OU students can apply for all merit and financial need-based OU scholarships. The link to CASH can be found on the <u>Scholarship Homepage</u>. College-wide scholarships, SoM tuition waivers, scholarships and awards (Section 5.3), financial aid scholarships, Sooner Heritage Scholarships, study abroad scholarships, Sooner Parents scholarships, and campus awards will all be housed through CASH. It is important for *every* undergraduate student to complete a CASH application *every* year. CASH applications are generally due at the beginning of February each year.

**CAGS scholarships:** The College offers some additional scholarships. Information can be found <u>here</u>. Other scholarships and awards exist through research organizations within the National Weather Center including the Oklahoma Climate Survey. Students should regularly check their emails for announcements of these awards.

**The Work Assistance Tuition Waiver** (WATW) is designed to assist current undergraduate students that work 25+ hours per week during the academic year. The intent of the tuition waiver is to help these students with their finances so that they are able to work fewer hours during the semester and focus more time and energy on their studies. Students that receive the tuition waiver are not required to continue to work 25+ hours a week during the following semester. Information can be found <u>here</u>.

# 6.5. SoM Scholarships

**The School of Meteorology Tuition Waiver Program** seeks to attract and retain highly qualified meteorology students. The program awards partial tuition waivers that help defray the cost of attending OU for residents and non-residents. The annual awards range from \$500 to \$3500 and are in addition to any other tuition waivers offered by OU. Around ten new awards are made each year. The awards are typically renewed for up to four years as long as the student is a meteorology major and maintains above 3.0 GPA at OU.

Initial awards are made based on the material submitted as part of students' application to OU (Section 2). All students who apply to OU and list meteorology as their intended major by the scholarship consideration deadline are automatically considered for the scholarship. A holistic approach is taken to making tuition waiver selections and we look at all components of the application including written statements. We look for students that show enthusiasm for meteorology, persistence, community and collegiality, adaptability, creativity, and commitment.

Tuition waiver awards are also be made to outstanding existing and transfer students after their first semester at OU when funds are available based upon CASH applications.

**Needs-based School of Meteorology Tuition Waiver:** Each year, depending on funding availability, tuition waivers are awarded to students with financial need. This is NOT financial need as determined by a student's FAFSA. Students already receiving a tuition waiver from the School or another source are eligible for this award, though the amount of support given via the scholarship outlined here will be limited to remaining need of the student (i.e., outstanding tuition balance). Eligible students must have a declared major in Meteorology and apply when an email announcement for needs-based tuition waivers is distributed.

# 6.6. Annual SoM Student Awards

Each year, the School presents a number of awards and scholarships to current students; these awards have typically been funded through the generosity of friends and alumni of the School. Typically, awards are presented in April and students receive a monetary award, a certificate, and for several of the awards their name on the School of Meteorology recognition wall in the NWC. All students must be in good academic standing to be eligible for an award.

Awarded via a CASH (Section 6.2) application:

- **Dr Rex L Inman Memorial Scholarship**: Awarded to a full-time undergraduate student who has completed at least 45 hours of course work and has maintained at least a 3.5 GPA in their meteorology courses as well as direct pre-requisites.
- **Dr. Edwin & Lottie Kessler Memorial Endowed Scholarship in Meteorology**: Awarded to a full-time meteorology major in their sophomore or junior meteorology courses with a demonstrated financial need. Criteria specifically include: completion of at least 45 credit hours of course work and a minimum of a 2.8 OU retention GPA.
- Droegemeier Endowed Scholarship for Excellence in Meteorology: This award is for full-time undergraduate students who have completed at least 45 hours of course work and have maintained at least a 3.5 GPA in their meteorology courses as well as direct pre-requisites.
- E.W. (Joe) Friday Endowed Scholarship: Awarded to a full-time *female* meteorology major in their sophomore or junior meteorology courses. Criteria specifically include: completion of at least 45 credit hours of course work and a minimum of a 3.2 OU retention GPA.
- Eric Nguyen Memorial Scholarship: Awarded to a student who is involved in developing and maintaining weather displays and visualizations as part of the HOOT Development Lab.
- Forrest W. Johns Memorial Meteorology Scholarship: This award is given based on the quantity and quality of a student's contributions to the Oklahoma Weather Laboratory. Those contributions include leadership, forecast skills, and overall participation.

• Thomas J. Lockhart Memorial Scholarship in Meteorological Measures & Observing Systems: Awarded to a student who has attained at least junior status and who has demonstrated an interest in meteorological measurements and observing systems.

Awarded via faculty and staff nomination. Students are encouraged to request nomination for these awards with their academic advisor, mentor, or other faculty and staff in the Fall semester:

- Faculty Recognition for Outstanding Performance as an Undergraduate: The criteria for selection for this award include GPA and extracurricular activities (such as jobs, volunteer work, committee work, etc).
- SoM Directors Recognition for Outstanding Service to the Department as an Undergraduate Student: Presented to an undergraduate who has given freely of his or her time and talents to departmental activities (e.g. departmental tours, etc). This may include a student very actively involved in groups such as OU SCAN.
- **Outstanding Teaching Assistant:** May be graduate or undergraduate TA from either Spring, Summer, or Fall of the previous calendar year.
- **Tommy C. Craighead Award for Best Paper in Radar Meteorology:** Presented to any University of Oklahoma student or recent graduate (May, August, December of previous calendar year) who is the lead author on a refereed journal article (preferably accepted, but at least submitted) with a focus on radar studies of the atmosphere. The research described in the article should be of superior quality and deemed to exemplify the interdisciplinary nature of remote sensing of the atmosphere using radar.
- **McCasland Award for Outstanding Undergraduate Research paper:** Eligible submissions are published papers, submitted manuscripts, or nearly completed manuscripts from research projects, including Capstone, from the previous calendar year.

Awarded based on academic performance:

- Undergraduate Academic Achievement Award METR Senior: Student in senior level meteorology courses with the best overall GPA.
- Undergraduate Academic Achievement Award METR Junior: Student in junior level meteorology courses with the best overall GPA.

# 6.7. External Meteorology and STEM Scholarships

**The American Meteorological Society** (AMS) administers an array of graduate and undergraduate scholarships with the support of its members, corporations, and government agencies nationwide. The fellowships and scholarships help further the education of outstanding graduate and undergraduate students pursuing a career in the atmospheric and related oceanic or hydrologic sciences. Visit the <u>AMS Scholarships and Fellowships website</u> to learn more and apply. Due dates vary. Scholarships of relevance include:

- AMS Senior Named Scholarships
- Women in Science Scholarship
- AMS Freshman Undergraduate Scholarship
- AMS Minority Scholarship
- The Father James B. Macelwane Annual Award in Meteorology

**The National Weather Association (NWA)** Foundation awards scholarships and grants to undergraduate and, in some cases, graduate students majoring in meteorology or a related field. To learn more about the eligibility and application process for each, visit their <u>website</u>.

The **NOAA Hollings Undergraduate Scholarship**: two years of academic assistance and summer internship at NOAA facility. Applications are typically due in January each year. For eligibility requirements and application details visit their <u>website</u>.

**Department of Defense** Science, Mathematics And Research for Transformation (SMART) Scholarship for Service Program scholarship supports undergraduate and graduate students pursuing degrees in Science, Technology, Engineering and Mathematics (STEM) disciplines by the Department of Defense (DoD). Details found <u>here</u>.

**Pathways to Science:** An excellent resource to search for scholarships is the Pathways to Science <u>website</u>.

**Others:** We also encourage all students to look to their local civic organizations, religious organizations, municipalities, etc. for scholarship opportunities. Even a smaller scholarship can make a big difference. We prioritize getting all scholarship opportunities that come to our attention out to our students.

# 7. Advising, Enrollment, and Mentoring

Useful resources:

**Degree Navigator**: To keep up with degree requirements (see Section 1) and track your progress toward graduation, use Degree Navigator.

**<u>iAdvise</u>**: Used for scheduling advising appointments in SoM and the College of Atmospheric and Geographic Sciences Dean's Office.

One: Academic resources and course schedules.

ClassNav: Course schedules, descriptions, and pre-requisites.

# 7.3. Academic Advising

Academic advising is provided to all students to decide on majors and minors, select appropriate courses, and become acquainted with university policies and resources. All students must be advised each semester to remove the advising hold from their account and be eligible to enroll in courses. Academic Advising is one of the key components in reaching your goal of graduation. Your academic advisor is someone who can help you in selecting a major and career, monitor your academic progress, provide information in designing, developing, and implementing individual academic plans, link you to resources in getting connected on campus and in the community, and more.

#### 6.1.1. New Freshmen

Students who are new to the University will be advised and enroll through the <u>New Sooner</u> <u>Orientation program.</u>

#### 6.1.2. Meteorology Students in University College

Students with declared meteorology majors who are in University College will be advised by professional academic advising staff in UC (<u>Advising and Enrollment in UC</u>).

# 6.1.3. Meteorology Students in CAGS

To provide quality guidance in creating an academic plan tailored to your interests and goals, you will have a professional academic advisor in SoM, as well as access to an advisor in CAGS.

SoM Academic Advisor – Lindsey Gunderson (lindsey.gunderson@ou.edu)

- Students in the 2<sup>nd</sup> year of the meteorology curriculum (e.g. METR 2004 etc.)
- Students in the 3<sup>rd</sup> year of the meteorology curriculum (e.g. METR 3113 etc.)
- Students in the 4<sup>th</sup> year of the meteorology curriculum (e.g. METR 4913 etc.)
- Transfer students

CAGS Academic Advisor – Brittney Johnson (bjohnson@ou.edu)

- Academic Advising Resource Center referrals
- Students on academic contract
- All degree checks and graduation clearance

The advisor will assist in the selection of courses, provide specific information on degree requirements, and help map out a plan for completing your degree in an optimal time frame, as

well as developing parallel plans. Advisors can also offer guidance on career pathways and other OU resources necessary for success.

- Advising for the Fall semester typically occurs in March.
- Advising for the Spring and Summer semesters typically occurs in October.
- Advising appointments are scheduled via iAdvise.
- Students are asked to check <u>Degree Navigator</u> and come to their advising appointment with a practice class schedule for the upcoming semester. Use the trial schedule template and/or the Build a Plan option in the enrollment system to create possible schedules to discuss with your academic advisor. This will also make it easier to enroll when your window opens.
- If any course overrides or special permissions are required for courses, advisors will provide information on how to obtain these. SoM can only provide permissions for METR courses.
- Once you have met with your advisor, they will remove your advising hold for enrollment.

# 7.4. Enrollment

- 1. KNOW WHEN TO ENROLL. Check out your Enrollment Window and Registration Status on One. Mark your calendar with the day and time that your enrollment window opens.
- 2. CHECK FOR HOLDS. Holds may keep you from enrolling during your Enrollment Window or impact other processes. You can check for holds by viewing the Enrollment Windows and Registration Status on One.
- 3. PREPARE FOR YOUR ADVISEMENT AN BE ADVISED See Section 6.1
- 4. PLAN YOUR SCHEDULE. Use any materials provided by your academic advisor, the Trial Schedules you completed and discussed with them, and the Look Up Classes link found under the Academics tab on One to find the courses you need and plan your schedule including checking pre- and co-requisites.
- 5. REGISTER FOR CLASSES. Click on the Enroll link under the Academics tab on one. Choose the term you'd like to register and use your trial schedules to complete your enrollment. Click Submit Changes and you should see a screen appear with your course schedule. If you have a registration error, it will be listed on this screen as well.
- 6. CHECK YOUR OU E-MAIL FOLLOWING ENROLLMENT. Make sure you receive an email confirmation from Enrollment Services the next day following each registration transaction. If you do not receive an e-mail, your transaction was not processed. Contact Enrollment Services immediately for assistance at (405) 325-3572. Please keep all emails regarding registration until you receive your Bursar's statement at the beginning of the semester.

# 7.5. Mentoring

As discussed in Section 7.1, your academic adviser helps you select courses and guide you towards completing your degree. As a meteorology major, you will also have the opportunity for mentoring. A **mentor** does not only provide advice on curriculum issues, or what courses to take. The late Morris Zelditch, an American sociologist defined the six roles of mentors. Mentors, said Zelditch, act as:

- Advisers, people with career experience willing to share their knowledge.
- Supporters, people who give emotional and moral encouragement.
- Tutors, people who give specific feedback on your performance.
- Masters, in the sense of employers to whom you might be apprenticed.

- Sponsors, sources of information about, and aid in, obtaining opportunities.
- Models of the kind of person you should be as an academic scholar.

Note that academic adviser is only one of the roles that a mentor might play during your undergraduate years and beyond. You will likely have many informal and formal mentors over the course of your degree, and we recommend using the following "mentoring map" from the Earth Science Women's Network and PROGRESS program to consider what YOU need to be successful and who can act as mentors in those areas.



#### 6.3.1. New Student Mentoring Program

To provide mentoring support to new SoM students (freshmen and transfer students), the Student Affairs Committee (SAC, see Section 14) organizes the New Student Mentoring Program (NSMP) which is a peer-to-peer undergraduate mentoring program. The program aims to provide support and build and inclusive community of undergraduate students in SoM.

The NSMP matches mentees (new students – freshman and transfer students) with an established junior or senior student mentor in SoM. Matches are made based on responses provided in the application, which students will be provided in their first semester in the program. Mentors can answer procedural questions (how things work at OU and in SoM), where to find resources outside of this handbook, tips for certain things in SoM etc. Often, small mentoring groups are also established with senior and junior mentors, and freshmen and sophomore mentees.

#### 6.3.2. School of Meteorology Mentoring Ecosystem

New in Fall 2021, SoM students will also be part of a mentoring ecosystem. Each ecosystem will be a small group of undergraduate students and an ecosystem leader. This system will enable students to have individual meetings with a mentor, but also build a network of supportive peers with group meetings or activities each semester. Ecosystem leaders are SoM faculty, adjunct or affiliate faculty, or research scientists who have undergone mentoring training. Students will have the opportunity to be matched into a mentoring ecosystem through a survey, and ecosystem foci may range from career interests, cultural or ethnic affiliation, first generation, and more. Ecosystem mentors can provide mentoring regarding internships,

research, minors, coursework, networking, career guidance, study abroad and more. Ecosystem leaders. Rather than academic advisors, are often ideal people to provide letters of recommendation for jobs, internships, scholarships and more.

# 6.3.2. External Mentoring Programs

Numerous national and international mentoring programs exist for students in meteorology/atmospheric science and STEM in general. Several affinity groups and organizations listed in Sections 4.3 and 13.3 provide mentoring programs in addition to those listed below

- <u>Mentoring365</u> is the American Geophysical Union and American Meteorological Society mentoring program and welcomes individuals who are interested in the Earth and space sciences community and connects them with other professionals who can help them find a job by enhancing communication and leadership skills, exploring ESS disciplines and building connections to successfully move their careers and education forward.
- American Meteorological Society Private Sector Mentorship Program.
- <u>Geolatinas mentoring program</u> The program provides a **supportive** and motivational environment where participants exchange impactful strategies to navigate the professional landscape as Latina geoscientists.
- The National Weather Association often holds virtual speed mentoring events.
- MAS (Mentor Activation for Students) Program of SACNAS
- <u>Earth Sciences Mentor Match</u>. Connecting students with mentorship support to apply for fellowships and graduate school in Earth Sciences (including atmospheric science).

# 7. IT and Computing

The College (CAGS) uses student technology fees to provide cutting-edge computer hardware, software, peripherals, media & customer support to encourage academic growth, innovation and collaboration.

The School of Meteorology's IT Team is here to help students, faculty, and staff with all of their computing and academic technology needs. They can be reached at <u>metit@ou.edu</u>.

All students should be familiar with SoM's acceptable use policy for technology.

Students should check their OU email at least daily. All important communication from SoM, CAGS, and OU will be via email.

# 7.1. Personal Computers and Required Software

While having a personal computer is not required to complete a meteorology degree it is very helpful. While the School of Meteorology's IT team will support any computer, the recommended specifications are listed below, and found on our <u>website</u>.

- Minimum i7 Processor or better
- 16GB RAM
- 512GB Hard Drive (Solid State Drive SSD highly recommended)
- 1 GB Integrated Video (Discrete/Dedicated Graphics Card recommended)
- 802.11 n/ac Wireless
- At least 1 USB 3.0 Port
- Windows 10 or later (64 bit)
- MacOS 10.14: Mojave or later
- 3 Year Warranty (accidental damage highly recommended, not required)

<u>Can I use a Chromebook?</u> Chromebooks are not able to run the required software to complete assignments within the School of Meteorology.

University students are eligible to download Microsoft Office for free at <u>portal.office.com</u>. Other office suites such as Open Office can read and write in the proper format and are available at no cost.

# 7.2. Programing

Computer programming and visualizing data is an important part of meteorology, which is why all students must complete a programming course in their freshmen year (Section 1). Most meteorology classes that you will take for your degree will involve programing in **Python**. If you learn, or have learned, a different language in high school, computer science classes at OU, or another institution, do not be concerned or discouraged – the principals of programming are universal and the School will assist with any transitions.

The recommended python distribution is <u>Anaconda Python</u>. By default, it will install most of the packages that you will need for your beginning classes. SoM IT will provide support to getting

your needed packages installed and running if you experience trouble. Specific issues with class assignments should be addressed by the instructor or teaching assistant of the class first.

# 7.3. Computer Labs

There are multiple computer labs available to undergraduates in the NWC. Within SoM there is the Linux lab located in NWC 5720, the general computer lab located in NWC 3650, computers in the NWC Library, and computers in NWC 5401 (the Undergraduate Lounge). The computers on the 5<sup>th</sup> floor, and Apple computers in NWC 3650 are accessible with your SoM Computing Account (Section 7.4). When using the windows computers in NWC 3650 and in the NWC Library you must sign in with your OU 4x4 and password. Students will also have access to multiple computer labs across campus supported by OU IT.

# 7.4. Computing Accounts

Access to School of Meteorology computer labs requires a computing account. You can request an account from the SoM Meteorology <u>Computing Page</u> and clicking on "School of Meteorology Computing Account". Once you sign in with your OU email address and password, and submit the form, the process to create the account is started. An email gets sent to the student once account creation is completed with username.

# 7.5. Remote Access

Some resources are only available on the computers within the NWC. Undergraduate students can remotely access resources within the National Weather Center from outside the building (e.g. from the dorms, main campus, or home residences) by using the bastion host (starbuck.nwc.ou.edu). To request access, go to the SoM Meteorology <u>Computing Page</u> and click on "Baston Host/Starbuck Access". This access must be renewed every semester.

#### 8. Student Organizations

The School of Meteorology has a variety of student organizations that offer a supportive environment and a broad range of opportunities that include peer mentoring, professional and social activities, field trips, and tutoring. Except for the student affairs committee, <u>you do not</u> have to be a meteorology major to participate in the organizations.

# 8.1. Oklahoma Weather Lab (OWL)

The Oklahoma Weather Lab is a student-run forecasting office serving Key West, Florida; and the state of Oklahoma. The lab hosts 2 shifts daily Monday through Friday, and 1 shift daily Saturday and Sunday, all of which take place in a state-of-the-art forecasting lab in the NWC.

Shift leaders (undergraduate students, typically junior and seniors) spend time during each shift to teach new forecasting techniques, then guide students through forecasting temperatures, wind speed/direction, cloud cover, and precipitation for the region. Students will get the chance to learn techniques such as reading atmospheric soundings, hand analysis of observed conditions, and forecasting with model guidance. The OWL lab also comes equipped with AWIPS II, the same forecasting software used by the National Weather Service (NWS), giving students an unparalleled opportunity to gain critical skills necessary for operational forecasting in a professional environment.

In addition, on weekdays, we feature a broadcast shift for OU Nightly, OU's student-led local broadcast studio. There, students have a chance to use the latest Baron software to create and present professional weather forecasts, giving students a fantastic opportunity to gain on-the-job experience in a supportive learning environment.

OWL also holds monthly workshops for students, which bring professional meteorologists and organizations to students in a friendly learning environment. Past speakers have included the WeatherBrains, Storm Prediction Center and NWS forecasters, and Weather Channel presenters such as Jim Cantore.

OWL also includes HOOT – the Hub of OWL Operational Technology (HOOT), which is OWL's development branch. Here students can get practice developing new technology to support forecasting, including websites and data visualization. Information about OWL and HOOT are available on the organizations <u>website</u>.

# 8.2. OU Student Chapter of the AMS and NWA (OU SCAN)

The University of Oklahoma Student Chapter of the American Meteorological Society and National Weather Association is an independent student-run organization at the University of Oklahoma. The purpose of this organization is to provide educational, professional, social, and service opportunities for University of Oklahoma students interested in meteorology. The organization is also meant to provide community awareness regarding the weather. The main purpose is to have meetings that provide these services for students in meteorology, through speakers from the meteorology community and other activities. OU SCAN hosts numerous service events, including the Weather Friends, which conduct outreach at weather events, schools and more. This is the only student organization in SoM that has a small membership fee each year. Learn more about OU SCAN at their <u>website</u>.

## 8.3. Student Affairs Committee (SAC)

The Student Affairs Committee is a registered OU student organization. The purpose of SAC is to ensure formal, continual communication between faculty and students regarding SoM and CAGS issues of direct importance to both undergraduate and graduate meteorology students. In addition, the Committee represents student opinions at faculty meetings and enables student input on appropriate issues, including, curricula changes, degree requirements, computing, and School of Meteorology outreach. The Committee is comprised of both graduate and undergraduate students who are elected each academic year. SAC holds undergraduate townhall meetings in conjunction with SoM leadership to ensure continual communication and to collect feedback and concerns from students.

Undergraduates can hold a number of SAC positions including:

- Secretary
- Treasurer
- Undergraduate Vice-Chair
- International Representative
- Senior Representative
- Junior Representative
- Sophomore Representative

SAC can be contacted through the website or via somsac@gmail.com.

# 9. Meteorology Study Abroad Exchange Programs

As weather systems and climate patterns are not influenced by national borders, meteorology has always had a distinctly international flavor. Many of its operational and research activities are globally coordinated by the World Meteorological Organization, a United Nations agency with headquarters in Geneva, Switzerland. As such, School of Meteorology students are encouraged to study abroad through any OU program, including in the summer. Students can explore study abroad opportunities on the Education Abroad <u>website</u>.

Due to the unique nature of our program, the School of Meteorology has exchange partnerships with the <u>University of Reading</u> in England and <u>Hamburg University</u> in Germany. Students from these institutions study in SoM and our qualified Meteorology students can study abroad in the Spring semester of their junior year of meteorology classes.

Students who study abroad will receive 12 hours of credit (Germany) or 15/16 hours of credit (Reading) that semester, which typically equate to METR courses. The exact courses that they will receive credit for depends on the program, but all necessary core classes will be either taken at the institution abroad or accommodations made to take courses in a later semester. In some cases, courses from the senior year sequence can be taken while abroad, which frees up hours for other courses. It is important to discuss your interest in studying abroad with your academic advisor and mentoring ecosystem.

Students interested in studying abroad should visit <u>OU Education Abroad</u> and speak with the one of the School's study abroad coordinators.

Reading: Elinor Martin, <u>elinor.martin@ou.edu</u> Hamburg: Petra Klein, <u>pkklein@ou.edu</u>

# 9.1. Eligibility

SoM applicants must have a 3.0 GPA and must normally have passed the SoM 1000- and 2000- level courses with grades of B or better. However, these are not always hard requirements and students with an interest in studying abroad but who don't meet these criteria should meet with the faculty liaison for the program of interest.

# 9.2. Application Process

Applications and selections for the Meteorology study abroad programs are handled by SoM and OU's Education Abroad Program (application process). Students pay a \$50 application fee once they submit their application with OU's Education Abroad Office. A general information session about SoM exchange programs and the application process is held every year. Applications are typically due in September of a student's junior year but must be completed earlier if a student wants to be eligible for scholarships (see below). The appropriate faculty liaison for the program of interest should be listed as a reference on the Education Abroad application.

In addition to the online application with OU Education Abroad, SoM students should also contact the SoM faculty liaison of the chosen exchange program and send them an email with

1. A short statement why they want to study abroad and (this can be the same as the Education Abroad application)

2. The names and contact info of 2 references.

The SoM faculty liaison will then schedule a meeting with the student. After the meeting the faculty liaison will send a formal recommendation to the Education Abroad Office, which will review all materials and make decisions about the acceptance of the applicants. It is important to note that applications without the SoM recommendation letter are not processed by the Education Abroad Office. A decision by Education Abroad is made in September and a final decision is made by the SoM by November 1. Students performing poorly in their fall courses may cause a reversal of an initial favorable decision.

## 9.3. Finances

Participants enroll in *INTL* hours, paying OU tuition at the same rate as they would on campus. Those enrolling in less than 15 hours are eligible for a flat rate tuition waiver. This total includes all standard fees, plus a \$26.20 per credit hour fee assessed by the Education Abroad Office. Students are responsible for pre-departure (e.g. passports and housing deposits) and transportation costs, as well as living expenses while abroad. *Financial aid, loans, grants and scholarships can all be applied to cover these costs of studying abroad.* 

OU Education Abroad also requires that all students participating in credit-bearing, OU study abroad programs are enrolled in comprehensive insurance through <u>CMI</u>. This insurance is required and is integral to the participation of any students on OU study abroad programs. Fees for this insurance will be charged directly to the student's OU Bursar account prior to the start date of the program.

- Information about possible scholarships to fund your study abroad can be found on OU's Education Abroad <u>Money page</u>
- **CASH:** Various study abroad scholarships are available through OU's Centralized Academic Scholarship Hub including the John T. Snow Study Abroad Scholarship for students in the College of Atmospheric and Geographic Sciences. Scholarship applications for study abroad funds are due the year before students attend (i.e. sophomore year, typically February) and they must already have an application with Education Abroad to be eligible
- **DAAD**: For American or Canadian students studying at German universities. Typically due in January.
- **<u>BUTEX</u>**: Scholarship offered to those studying for a semester at British universities. Typically due in June.
- <u>PITF</u>: the Presidential International Travel Fund helps cover average airfare costs. This and other funding sources can be found on OU's Education Abroad <u>website</u>.
- <u>Alliance Scholars</u>: a general scholarship website featuring many programs that may be helpful, such as the Gates Millennium Scholar Program:
- <u>Benjamin A. Gilman International Scholarship</u>: 2900 scholarships up to \$5,000: Eligible if you currently receive a Federal Pell Grant and will continue to receive one through the semester you plan to study abroad. The Gilman scholarship is from the US Department of State.

#### 10. Conference Attendance

Attending conferences of various professional organizations (e.g. American Meteorological Society, National Weather Association, American Geophysical Union) can provide students with valuable networking and learning experiences, in addition to opportunities to demonstrate research.

It is the policy of the School to provide each undergraduate student with funding to attend a professional conference during their undergraduate career. The funding can be used to support flight costs, food, lodging, meeting registration, and other approved travel costs. The number of students supported in a calendar year will be limited by the amount of available funds, with students who are presenting a talk or poster at a conference, as well as upperclassmen, given priority when making funding decisions. Applications for travel funds through SoM are due at least 90 days before your trip.

Once you have received approval for your travel you will work with the School to book travel and make hotel reservations if necessary. As many costs as possible will be paid for up front by the School (flights, conference registration) but students will have to cover some costs out of pocket and will submit a form for reimbursement upon their return. To be reimbursed, students need to save the receipts from each transaction. It is important for students to remember that they will not be reimbursed beyond the amount for which they were been approved.

Please be aware that the following restrictions apply when traveling with University funds: the University can cover economy airfare, shuttles, train, taxi, mileage to and from the airport, conference registration, per diem, and hotel, but cannot cover souvenirs, room service laundry services, or additional baggage fees beyond one checked bag. Exemptions can sometimes be made, but additional restrictions may also apply. When in doubt about what may be covered, it is always better for students to stay on the safe side and assume that things will not be covered.

When participating in conferences, students are representing the SoM, CAGS, OU, and any other organizations that they are part of. Students must abide by the specific conference code of conduct as well as OU's Student Code of Conduct and the NWC protocol (see Section 3)

## 11. Internships, Research, and Employment

## 11.1. Internships and Academic Credit

Students in the School of Meteorology are encouraged to pursue an internship. Internships cover a wide variety of experiences including broadcast meteorology, private sector companies, and summer research experiences. Internships provide students with the opportunity to gain professional experience in their field of study and may lead to an entry-level position within the business where the internship was performed. Although students are not required to seek credit for an internship, many internship employers require that students be enrolled in an internship class. Students may earn 1-3 hours of credit for an internship. Internships may be completed at any time during the academic year and may be either paid or unpaid – either are eligible for academic credit.

**Please note:** An internship through the School of Meteorology will not carry degree credit toward a BS in Meteorology unless the student obtains permission from the Director of the School of Meteorology for the internship to fulfill a specific degree requirement.

To receive academic credit through the School of Meteorology for an internship, a student must:

- Have a declared a major in Meteorology
- Have a minimum 2.0 OU and Retention GPA
- Submit an SoM Internship for Credit <u>form</u> to the undergraduate advisor and Associate Director for Undergraduate studies.
- Enroll a section of METR 3890 typically that of the Associate Director for Undergraduates who will act as the instructor.
- Satisfactorily complete the requirements set forth by the instructor of the course in the time agreed upon.

METR 3890 is letter graded, so to receive a grade and credit for your internship:

- You are required to submit brief weekly reports to document your progress in the internship.
- At the end of the internship, you must submit a report (length to be discussed with instructor based on credits taken) to your internship instructor that includes:
  - The nature and scope of the work you performed
  - What you learned and how it relates to your education at OU
  - How the internship experience has affected your career plans
- Your instructor will also request that your internship supervisor provides a written evaluation of your job performance at the completion of the internship.

## 11.2. Finding an Internship

Institutions and companies send listings to the university that are distributed among the students; students should carefully read the Monday Memo and emails from student coordinators to see these listings (see also Section 11.3 for student employment). Students can find internship resources on OU's <u>Career Services website</u>, SoM's job board, and job boards from other institutions. Students may also seek internships directly with a company or business. The AMS also has an internship board on its <u>website</u>.

Some national internships programs are listed below, but many other internships exist, such as those through local TV stations for broadcast meteorologists.

- The William M. Lapenta NOAA Student Internship Program
- Department of Energy Science Undergraduate Laboratory Internships (SULI)
- Summer Internship at Joint Institute for the Study of the Atmosphere and Ocean (JISAO)
- NASA Student Airborne Research Program
- NASA Internships
- <u>Research Experiences for Undergraduates (REU)</u>: summer research opportunities for undergraduate students at various national institutions, including one at the National Weather Center.
- <u>Significant Opportunities for Atmospheric Research and Science (SOARS)</u>: summer research opportunity at National Center for Atmospheric Research (NCAR) in Boulder, Colorado or other sponsoring laboratories.
- <u>NOAA Hollings Undergraduate Scholarship</u>: two years of academic assistance and summer internship at NOAA facility.
- <u>National Weather Service Pathways</u> Program.

# 11.3. Student Employment

Undergraduates can find student jobs in meteorology and related fields throughout the various entities in the NWC and OU campus, as well as with private sector companies on OU's Research Campus and throughout the Oklahoma City metro. The experience and broad range of skills developed by these opportunities make students more competitive when applying for employment after graduation. The Cooperative Institute for Severe and High-Impact Weather Research and Operations (<u>CIWRO</u>, formerly known as CIMMS), the Oklahoma Climate Survey and <u>Mesonet</u>, Storm Prediction Center, and others have employed Meteorology undergraduates. Some faculty also employ undergraduates within their research groups.

Students should watch for job announcements via departmental emails, the Monday Memo from CAGS, and on our <u>job board</u>. Students are also encouraged to make use of the OU HR department's resources, which can be found <u>here</u>.

## 11.4. Research and Academic Credit

Students have multiple opportunities to participate in research as undergraduates with SoM.

**Honors Students**: Students in OU's <u>Honors College</u> can conduct their honors project under the supervision of a SoM faculty or adjunct faculty member. This project typically becomes the student's Honors thesis. To conduct Honors research and receive the appropriate academic credit (METR 3980), students must find a faculty member willing to supervise them and submit the Honors Research <u>form</u> to the Honors College. The Honors Research Form must be signed by the faculty research mentor, the student, and the SoM honors coordinator. This form serves as an agreement between the student and the faculty member that describes the expectations for the research and grading procedure.

Students who are employed in an undergraduate research position cannot be paid for their research work if they are using it for their honors research in the semester that they are enrolled in Honors Research.

Meteorology majors can undertake honors research outside of SoM, no permissions from SoM are required.

Other Honors College Research Opportunities:

HRAP: Honors Research Assistant Program

FYRE: First Year Research Experiences

Honors College Coordinator: Elinor Martin, elinor.martin@ou.edu

**Undergraduate Research Opportunities**: Students can receive funding for research opportunities via the Undergraduate Research Opportunities Program (<u>UROP</u>), typically with two deadlines per year in September and February. Other undergraduate research opportunities exist such as <u>URecA</u> through the Undergraduate Research and Creative Activity office.

**Undergraduate Research for Credit in SoM**: Students conducting research with SoM faculty or adjunct/affiliate faculty members can receive academic credit by enrolling in the section of METR 4990 associated with your research advisor. Prior to enrolling and to receive enrollment permissions, both the student and faculty research advisor must confirm participation with the undergraduate academic advisor. SoM encourages all faculty to pay students conducting undergraduate research.

#### 12. Careers

Meteorology blends mathematics, physics, and computer sciences to provide a theoretical and applied framework to understand and predict the complexities of the atmosphere. Our undergraduate program prepares students for the pursuit of a broad range of careers in sectors such as meteorology, climatology, environmental science, remote sensing, engineering, emergency management, aviation/aerospace, energy and related fields.

Our program prepares students for a broad range of careers which generally falls into one of three categories – government, private sector, and academia. Some examples of jobs in each of these categories are provided below.

<u>Government</u>: Operational meteorologist at the National Weather Service, military (e.g. Air Force) weather office or forecaster, city or county emergency managers, Department of Agriculture, government air quality scientists, etc.

<u>Private Sector</u>: Broadcast meteorologist at a TV station, meteorologist/climate scientist at energy, commodity, and insurance/re-insurance companies, aviation meteorologists for passenger and cargo airlines, ship forecasting, land transportation, instrument and technology development, forensic meteorologist, and many other applied meteorological applications, etc.

Academia: teacher, research scientist, faculty, etc.

The AMS has an excellent <u>Careers resource program</u> where students can view career profiles of a wide variety of professionals and provides an array of additional resources. The American Geoscience Institute has also created a "CareerCompass" focused on atmospheric sciences which provides options, tips, suggestions, and strategies for how a student can obtain critical skills, experiences, and competencies to launch their career.

Although numbers vary year to year based on student interests and job availability, approximately 35-40% of our students go on to graduate schools in various disciplines, 25-45% to private sector positions, 10-15% acquire positions in the NWS, State, or Federal jobs, 5-10% have TV broadcast meteorologist positions, and 2-5% to the military.

Students pursuing a degree in Meteorology should make use of the University's excellent <u>Career Services</u> office, which can be found on the third floor of the Oklahoma Memorial Union. There are also <u>Career Fairs</u> put on by the CAGS, the American Meteorological Society, the American Geophysical Union, and the National Weather Association. It is important that students prepare for career fairs and other opportunities adequately. The university has a number of resources to assist students; please contact the School of Meteorology academic coordinators for more information.

Numerous resources exist for job searching. In addition to those listed in Section 11 for internships, the following websites may be useful:

- Meteorology Jobs
- <u>USAJobs</u> all federal opportunities (e.g. National Weather Service)
- NASA Job Opportunities
- EPA Careers and Internships
- <u>National Weather Association Job Corner</u>
- AGU job Listing (membership and login required)
- AMS Employment Announcements

- <u>LinkedIn</u>
  <u>Green Careers</u>
  <u>Environmental Career Opportunities</u>
  <u>Clean Energy Job Database</u>

## 13. Resources for Student Success

## 13.1. NWC Library

The <u>NWC Library</u> began operating in 2006, when the National Severe Storms Laboratory (NSSL) Library was merged with OU's School of Meteorology library. It supports the research, education, outreach, and operations of all NWC entities, and offer research services to anyone in the general public with an interest in weather or geography. The NWC Library collection contains over 7,000 materials covering subjects including:

- Meteorology
- Geography
- Geographic Information Science
- Environmental Sustainability
- Climatology
- Mathematics
- Physics
- Disaster Management
- Computer Programming and Languages

Our library is also home to unique government documents, historical weather maps, and rare field sketchbooks of tornadoes from the 1800s. As the library is a joint venture of the University of Oklahoma and NOAA, we facilitate access to both educational and federal resources. The NWC Library hosts therapy dog visits weekly, and serves as an OU ADRC testing location (Section 3.2.1) within the National Weather Center.

## 13.2. Academic Support

- <u>OU Tutoring Service</u>: A number of free tutoring options for varying subjects
- <u>OU Math Center</u>: offering support for OU math courses.
- OU Chemistry Lab Help: See your Canvas Course page for details on the General Chemistry tutoring.
- <u>OU Student Learning Center</u>: a department of University College (UC) offers free tutoring through UC action. This service offers walk-in, small group appointments, online tutoring, and/or faculty directed sessions to help students take action towards their own academic success.
- The <u>OU Writing Center</u> is a university-wide program that enriches learning, teaching, and research through engagement with writing. We assist students and faculty across the campus with all types of writing projects at any stage in the writing process.

#### 13.3. Further Resources

Additional resources for students from underrepresented groups can be found in Section 3.2. Listed below are OU resources that should be explored by students.

- OU International Student Services: ISS provides information and support for all international students.
- <u>Goddard Health Services</u> is the University of Oklahoma's on-campus health clinic. Please refer to their website for information on scheduling appointments, clinic hours, and financial information.
- <u>OU Women's Center</u>: The women's center (a division of Goddard Health Services) is staffed with physicians and physician assistants to address the physical, psychological

and emotional needs of women on the University of Oklahoma campus. Appointments may be scheduled by calling 325-4441.

 <u>University Counseling Clinic</u>: UCC provides services to students, faculty, and staff. Counselors help people resolve existing problems, prevent potential problems, and develop new skills that will enhance their lives. A broad range of services in a variety of formats is offered. UCC is staffed by professional psychologists and counselors, as well as advanced graduate students under supervision.

The following national and international organizations provide additional resources, support, and opportunities for students.

- American Meteorological Society <u>https://www.ametsoc.org</u>
- American Geophysical Union <u>https://www.agu.org</u>
- National Weather Association <a href="https://nwas.org/">https://nwas.org/</a>

#### 14. NWC, CAGS, and SoM Administration

14.1. The National Weather Center <u>https://www.ou.edu/nwc</u>

The College of Atmospheric and Geographic Sciences and the School of Meteorology are housed in the National Weather Center.

Due to the collocation of academic and government facilities in the National Weather Center, everyone entering is required to display an approved ID (OU Sooner Card/NOAA/Research Campus/NWC Security issued) while in public areas of the NWC. Only those with approved access are allowed entry between 7pm and 7am.

After your freshmen year, students in the College of Atmospheric and Geographic Sciences have access 24 hours a day (one needs to swipe their ID-card to get after 7pm). Freshmen will not have 24 hr access unless they become active in the student organizations at the School of Meteorology (SoM).

# 14.2. College of Atmospheric and Geographic Sciences <a href="https://www.ou.edu/ags">https://www.ou.edu/ags</a>

The Mission of the College of Atmospheric and Geographic Sciences is to provide a world-class academic experience that promotes convergent, innovative and inclusive education and research at the intersections of weather, climate, and sustainability. To fulfill our mission, we are dedicated to preparing students for successful careers in the private sector, academia, government agencies, and non-governmental organizations.

The College's staff <u>website</u> provides contact information for the wonderful Dean's Office staff. The AGS Dean's Suite is full of valuable members of the college who can help students with issues such as SoonerID card access, academic contracts, graduation checks, and more. They are located on the 3rd floor of the National Weather Center in Suite 3630.

Certain documentation and procedures are handled through the Dean's Office, this includes documentation that requires College-Level Advisor signature. Some examples of documentation and procedures handled by the College are (note that this list is not comprehensive):

- GI Bill and VA forms
- Second bachelor degrees
- Flat rate tuition exemptions
- Academic contracts
- Degree Checks

14.3. The School of Meteorology http://meteorology.ou.edu/

#### 14.3.1. SoM Directors

Dr. Cameron Homeyer serves as the Interim Director of the School of Meteorology <u>chomeyer@ou.edu</u> Dr. Elinor Martin serves as the Associate Director for Undergraduate Studies <u>elinor.martin@ou.edu</u>

Dr. Scott Salesky serves as the Associate Director for Graduate Studies salesky@ou.edu

## 14.3.2. SoM Staff

The School's front office is located on the 5th floor of the National Weather Center in Suite 5900. The staff in the front office are here to help students with issues that arise, whether that means aiding in-house or referring a student to the proper resource. The SoM staff website provides contact information about the wonderful SoM staff.

Lindsey Gunderson is the academic advisor and the main point of contact for students with questions related to the SoM undergraduate program. She is available to meet with students to work through academic, financial, personal, and other issues. Students may schedule an appointment with her via iAdvise.

# 14.3.3. SoM Undergraduate Studies Committee (UGSC)

Any revisions of the SoM undergraduate curriculum are handled by the SoM UGSC. The UGSC is also in charge of keeping this Undergraduate Student Handbook up to date and serves a point of contact for students who have concerns or suggestions for future improvements of the SoM undergraduate curriculum and SoM policies for the undergraduate program as described in this document. The UGSC consists of 5 voting members (faculty members and instructors) and 3 non-voting members:

Voting Members (as of Fall 2023):

- Elinor Martin (Chair): Associate Professor, NWC 5642, elinor.martin@ou.edu
- Naoko Sakaeda: Assistant Professor, NWC 5329, nsakaeda@ou.edu
- David Parsons: President's Associates Presidential Professor; Director Emeritus, NWC 5111, <u>dparsons@ou.edu</u>
- Greg McFarquhar: Professor; Director of CIMMS, NWC 2104, mcfarq@ou.edu
- Amanda Kis: Faculty, NWC 5409, akkis@ou.edu

Non-Voting Members: Lindsey Gunderson, Undergraduate Coordinator Shawn Riley, Computer Systems Coordinator Student Member - SAC student representative

## Appendix 1: Common Acronyms and Abbreviations

OU University of Oklahoma SoM School of Meteorology CAGS College of Atmospheric and Geographic Sciences NWC National Weather Center AMS American Meteorological Society NWA National Weather Assocation AGU American Geophysical Union NWS National Weather Center SPC Storm Prediction Center CIWRO Cooperative Institute for Severe and High-Impact Weather Research and Operations METR meteorology course code abbreviation UGSC Undergraduate Studies Committee JEDI Justice, Equity, Diversity, and Inclusion NOAA National Ocean and Atmospheric Administration CASH Centralized Academic Scholarship Hub