## REQUIREMENTS FOR THE BACHELOR OF SCIENCE IN METEOROLOGY

### COLLEGE OF ATMOSPHERIC AND GEOGRAPHIC SCIENCES

### THE UNIVERSITY OF OKLAHOMA

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### For Students Entering the Oklahoma State System for Higher Education:

**Summer 2018 through Spring 2019**

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### GENERAL REQUIREMENTS

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Credit Hours</td>
<td>125-126</td>
</tr>
<tr>
<td>Total Upper-Division Credit Hours</td>
<td>52</td>
</tr>
<tr>
<td>Minimum Retention/Graduation Grade Point Averages:</td>
<td></td>
</tr>
<tr>
<td>Minimum in OU Coursework</td>
<td>2.25</td>
</tr>
<tr>
<td>Minimum in Major Coursework – Combined and OU</td>
<td>2.25</td>
</tr>
<tr>
<td>Overall – Combined and OU</td>
<td>2.25</td>
</tr>
</tbody>
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### University-Wide General Education (minimum 40 hours) and College of Atmospheric and Geographic Sciences Requirements

**Courses graded P/NP will not apply.**

- **Core Area I: Symbolic and Oral Communication (9-19 hours, 3-5 courses)***
  - English Composition (6 hours, 2 courses):
    1. English 1113, Principles of English Composition
    2. English 1213, Principles of English Composition, or
    3. EXPO 1213, Expository Writing
- **Core Area II: Natural Science (7 hours, 2 courses) including one laboratory component.***
  1. Science with Lab: *CHEM 1315, General Chemistry*
  2. Science without Lab: *PHYS 2514, General Physics for Engr. & Science Majors*
- **Core Area III: Social Science (6 hours, 2 courses)***
  1. Political Science 1113, American Federal Government
  2. _____________________________
- **Core Area IV: Humanities (12 hours, 4 courses)***
  - a. Understanding Artistic Forms (3 hours, 1 course)
  - b. Western Civilization and Culture (6 hours, 2 courses):
    1. History 1483, U.S., 1492-1865, or History 1493, U.S., 1865-Present
    2. _____________________________ (excluding HIST 1483 and 1493)
  - c. Non-Western Culture (3 hours, 1 course):
- **Core Area V: Senior Capstone Experience (3 hours, 2 courses):***
  1. METR 4911, Senior Seminar
  2. METR 4922, Senior Seminar II

At least three hours of Upper-Division General Education coursework must be completed outside the major.

*College of Atmospheric and Geographic Sciences requirements*

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### Major Requirements

**Meteorology, Hydrology or Climatology upper-division elective:**

- **Meteorology Courses (40 hours, 16 courses)***
  1. **Orientation to Professional Meteorology**
  2. **Intro. to Meteorology I Lab**
  3. **Intro. to Meteorology I**
  4. **Intro. to Meteorology II Lab**
  5. **Intro. to Meteorology II**
  6. **Atmospheric Dynamics I: Intro. to Atmospheric Kinematics/Dynamics**
  7. **Atmospheric Dynamics II: Theory of Atmospheric Flows**
  8. **Physical Meteorology I: Thermodynamics**
  9. **Physical Meteorology II: Cloud Physics, Atmos. Electricity/Optics**
  10. **Atmospheric Measurement Systems**
  11. **Atmospheric Dynamics III: Mid-Latitude Synoptic-Scale Dynamics**
  12. **Physical Meteorology III: Radiation and Climate**
  13. **Synoptic Meteorology Lab**
  14. **Meso-scale Meteorology**
  15. **Senior Seminar (Capstone)**
  16. **Senior Seminar II (Capstone)**

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### Major Support Requirements

**Courses required for major support may not also fulfill University-Wide General Education Requirements**

<table>
<thead>
<tr>
<th>Core Requirement</th>
<th>Additional Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B685 Meteorology</strong></td>
<td>3-4</td>
</tr>
<tr>
<td>MATH 2934, Differential &amp; Integral Calc. III, or</td>
<td></td>
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<tr>
<td>MATH 2443, Calc. &amp; Analytic Geom. IV</td>
<td></td>
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<tr>
<td>PHYS 3131, General Physics Lab I</td>
<td></td>
</tr>
<tr>
<td>PHYS 3132, General Physics Lab II</td>
<td></td>
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<tr>
<td>MATH 3413, Physical Mathematics I</td>
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<tr>
<td>METR 4313, Statistical Meteorology, or</td>
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<tr>
<td>MATH 4753, Applied Statistical Methods</td>
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### Enrollment Elective: one course from the following:

- **COMM 1113, Princ. of Communication**
- **COMM 2613, Public Speaking**
- **ENGL 3153, Technical Writing** or **EXPO 1223, Expository Writing**
- **GEOG 3333, Geowriting**
- **METR 3980, Honors Research**
- **JMC 2033, Writing for Mass Media**

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### Science Elective: one course from the following:

- **AGSC 1013, Extreme Weather & Climate**
- **AGSC/GEOL 2014, The Earth System**
- **AGSC/GEOL 1114, Physical Geology**
- **ASTR 1504, General Astronomy**
- **ASTR 1514, Astronomy: Exploring the Universe, with Lab**
- **BIOL 1114, Introductory Zoology**
- **CHEM 1415, General Chemistry (cont.)**
- **GEOG 1114, Physical Geography**
- **PBIO 1114, General Botany**

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### Free Electives

Electives to bring total applicable hours to 125-126 including 52 upper-division hours.

Electives may be used to fulfill the requirements for a minor, if desired, but must include at least nine hours of upper-division coursework.

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### Additional College of Atmospheric and Geographic Sciences Bachelor of Science Requirements:

1. **MATH 2924, Differential & Integral Calculus II**
2. **PHYS 2524, General Physics for Engr. & Science Majors**
3. **C S 1313, Programming for Non-Majors**, or **METR 1313, Introduction to Programming for Meteorology**

**MATH 1823, 2423, and 2433 will also fulfill the College’s calculus requirement.**

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2-14
A minimum of two semesters must be spent in residence in the College of Atmospheric and Geographic Sciences.

At least 36 of the last 48 hours must be completed in residence at OU.

SECOND SEMESTER

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1113, Principles of English Composition (Core I)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1914, Differential &amp; Integral Calculus I (Core I)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1315, General Chemistry (Core II)</td>
<td>5</td>
</tr>
<tr>
<td>HIST 1483 or 1493, U.S. (Core IV)</td>
<td>3</td>
</tr>
<tr>
<td>METR 1111, Orientation to Professional Meteorology</td>
<td>1</td>
</tr>
</tbody>
</table>

TOTAL CREDIT HOURS: 15

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checklist for official requirements. Students must consult with College of Atmospheric and Geographic Sciences and/or School of Meteorology academic advisers to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Atmospheric & Geographic Sciences, and Meteorology major requirements.

Suggested Semester Plan of Study — Bachelor of Science in Meteorology (B685)

- Students who have not completed two years of the same foreign language in high school are required to take two college courses in the same foreign language. This additional coursework may add 6-10 hours to the minimum hours required for graduation.
- Students must attain a grade of C or better in all MATH, PHYS, and C S, and in METR courses that are direct prerequisites for other METR courses.
- NOTE: No more than 52 hours of Meteorology coursework may be taken to fulfill the 125-126 minimum credit hours required.

Bachelor’s degrees require a minimum of 48 hours of upper-division (3000-4000) coursework. This plan of study should not be used in lieu of academic advisement.

Computer Science Area of Concentration: The School of Computer Science has joined with the School of Computer Science in the College of Engineering to provide an Area of Concentration within the meteorology curriculum for students interested in further developing their skills in the use of computers in science, engineering, and business. Additional information is available from your faculty adviser.

Minor in Broadcast Meteorology: The College of Journalism and Mass Communication offers a minor in Broadcast Meteorology for meteorology majors interested in careers in broadcast media. Seventeen hours in communication and journalism courses are required. Additional information is available from your faculty adviser.


Minors in mathematics, business, computer science, environmental science, geography, geology, and hydrologic science, interdisciplinary perspectives on the environment, and physics are available and students are encouraged to consider one or more of these minors. Students may obtain a minor in mathematics by taking one additional 4000+ MATH course in addition to those required in the curriculum. Additional information is available from your faculty adviser or from the Atmospheric and Geographic Sciences Dean’s Office, National Weather Center, Room 3630.