Atmospheric & Earth Science, BS
Atmospheric Science & Meteorology Concentration
2024-2025 Catalog | catalog.uah.edu

<table>
<thead>
<tr>
<th>Completed</th>
<th>Course Number</th>
<th>Credits</th>
<th>Course Name</th>
<th>Semester Usually Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ME 101</td>
<td>3</td>
<td>College Writing I</td>
<td>FA/SP/ SU</td>
</tr>
<tr>
<td></td>
<td>ME 102</td>
<td>3</td>
<td>College Writing II</td>
<td>FA/SP/ SU</td>
</tr>
<tr>
<td></td>
<td>ME 103</td>
<td>3</td>
<td>Accelerated College Writing</td>
<td>SP</td>
</tr>
<tr>
<td></td>
<td>ME 105</td>
<td>3</td>
<td>Honors English Seminar</td>
<td>FA</td>
</tr>
</tbody>
</table>

**Placement Requirements:** 63-6 credits - see attached for more options

**Area I: Freshman Composition** 3 credits

- ME 101 College Writing I
- ME 102 College Writing II
- ME 103 Accelerated College Writing
- ME 105 Honors English Seminar

**Area II: Humanities and Fine Arts** 12 credits

- ME 101 Fine Art
- ME 102 Literature
- ME 103 Non-Literature Humanity
- ME 104 Humanities/Fine Arts/Literature

**Area III: Mathematics and Sciences** 12 credits

**Mathematics 4 credits**

- ME 101 Calculus I

**Natural Sciences (Lab) 8 credits**

- ME 111/114 Physics w/ Calculus I + Lab
- ME 112/115 Physics w/ Calculus II + Lab

**Area IV: History and Social & Behavioral Sciences** 12 credits

- ME 101 History
- ME 102 World Geography
- ME 103 Human Geography
- ME 104 Human Geography

**Area V: Pre-Professional**

For Atmospheric & Earth Science Majors (ATS) 22 credits

- ME 101 Charger Success - Science
- ME 102 Intro to Computer Programming
- ME 121/125 General Chemistry I + Lab
- ME 122/126 Calculus I
- ME 123/127 Calculus II
- ME 124/128 Calculus III
- ME 125 Applied Differential Equations
- ME 126 Applied Statistics Course

**Major Requirements**

Atmospheric & Earth Science Core 17 credits

- ME 103/103L Environmental Earth Science + Lab
- ME 104/104L Weather & Climate Change + Lab
- ME 209 Data Analysis Tools
- ME 301 Intro to Earth & Atmos Physics
- ME 303 Class/Physical Causes Climate
- ME 498 Research & Prof Dev Capstone

Atmospheric Science/Meteorology Concentration 16 credits

- ME 212/212L Severe Weather Analysis
- ME 321 Pollution Problems (or Intro to Remote Sensing)
- ME 341 Thermodynamic Meteorology
- ME 351 Dynamic Meteorology
- ME 408 Python for GIS (or Sci Programming for Earth/Atmos)

Atmospheric Science/Meteorology Concentration Electives Choose 17 credits: 9 credits must be 400+ level

- ME 305, ME 352, ME 410, ME 454, ME 471, ME 472. These courses count towards the National Weather Service GS-1340 Federal Civil Service Requirements.
- ME 313, ME 408, and ME 414 - Student may choose 2 of these 3 GIS tools courses to count as concentration electives.
- ME 495 or ME 497 or ME 499 - Student may choose only one of these courses to count as a concentration elective.

AES 321, AES 370, AES 408, AES 409 - Each of these courses can be used to satisfy a concentration requirement or an elective requirement, but not both.

- ME 305
- ME 352
- ME 410
- ME 454
- ME 471
- ME 472

**General Electives**

Elective courses can be taken from any department and do not have to be taken in your major or minor.

**Total = 120+ credits to graduate**

36 of the 120 credits must be taken at 300-level or higher.

The Catalog is the final authority for all degree requirements.

Placement Requirements: https://www.uah.edu/admissions/undergraduate/admitted-students/academic-placement

Revised 2.23.2023
## Atmospheric & Earth Science, BS

### Atmospheric Science & Meteorology Concentration

2024-2025 Catalog | catalog.uah.edu

### Charger Foundations Choices

| I. Freshman Composition | Choose 1 | College Writing I & II (EH 101 + 102) | Intensive Writing & Studio & Freshman Comp II (EH 101S + 101L & EH 102) | Honors English Seminar (EH 105, equivalent to EH 101 & EH 102) | Accelerated College Writing (EH 103: equivalent to EH 101 & EH 102) |

| II. Fine Arts | Choose 1 | Ancient to Medieval Art (ARH 100) | Renaissance to Modern Art (ARH 101) | World Art (ARH 103) | Introduction to Drawing (ARS 160) | Intro to Film Studies (FMA 123) | Intro to Music Literature (MU 100) | Theatre Appreciation (TH 122) |

| II. Humanities (Literature) | Choose 1 | Readings Literature/Culture I (EH 207) | Readings Literature/Culture II (EH 208) | Honors Literature/Culture I (EH 209) | Honors Literature/Culture II (EH 210) | Literature Without Borders (EH 241) | Mythology (EH 242) | Protest Literature (EH 243) | Heroes &/or Monsters (EH 244) | Love &/or Romance (EH 245) | Speculative Realities (EH 246) |

| II. Humanities (Non-Literature) | Choose 1 | Ancient to Medieval Art (ARH 100) | Renaissance to Modern Art (ARH 101) | World Art (ARH 103) | Introduction to Drawing (ARS 160) | Ancient & Medieval Worlds (AMS 229) | Public Speaking (CM 113) | Intro to Film Studies (FMA 123) | Intro to Music Literature (MU 100) | Intro to Philosophy (PHL 101) |

| III. Mathematics | | Calculus I (MA 171 or MA 171S) |

| III. Natural Sciences (Lab) Sequence | | Physics w/ Calculus I (PH 111/114) | Physics w/ Calculus II (PH 112/115) |

| IV. History | Choose 1 | World History I (HY 103) | World History II (HY 104) | United States to 1877 (HY 221) | United States Since 1877 (HY 222) |

| IV. Social & Behavioral Sciences | Choose 2 | World Geography (AES 105) | Human Geography (AES 110) | Global systems & Cultures (GS 200) | Macroeconomics (ECN 142) | Microeconomics (ECN 143) | American Gov’t (PSC 101) | Politics & Foreign Gov’t (PSC 102) | International Relations (PSC 260) | General Psychology (PY 101) | Life Span Development (PY 201) | Intro to Sociology (SOC 100) | Analysis of Social Problems (SOC 102) | Intro to Criminology (SOC 103) |

### Students must take one literature and one history course.

- **Area II Sequence**: Take a 2nd Literature AND History or Social & Behavioral Science

### OR

- **Area IV Sequence**: Take a 2nd History AND Fine Arts or Non-Literature Humanities or Literature Humanities

### Area V. Choices

#### Computer Programming

| Choose 1 | Intro to Computers & Programming (CS 100) | Intro to C Programming (CS 102) | Intro to Programming Using JAVA (CS 103) | Intro to CS Using Python (CS 104) |

#### Applied Statistics

| Choose 1 | Elements of Statistics Analysis (MA 281) | Probability & Statistics (MA 385) | Intro to Social Science Statistics (PSC 300) | Psychological Statistics (PY 300) | Statistics for Social Sciences (SOC 303) |

### Major Choices

#### Concentration Electives

| Choose 17 Credits (9 @ 400+) | AES 305 Hydrology* | AES 313 Geographic Information Systems | AES 321 Pollution Problems | AES 352 Synoptic Meteorology* | AES 370 Intro to Remote Sensing | AES 402 Natural Disasters | AES 408 Python for GIS | AES 409 Scientific Programming for Earth & Atmos | AES 410 Operational Weather Forecasting* | AES 414 Geospatial Applications | AES 420 Intro Atmospheric Chemistry & Air Pollution |

| | AES 441 Atmospheric Thermodynamics & Cloud Physics | AES 451 Atmospheric Fluid Dynamics I | AES 454 Forecasting Mesoscale Proc* | AES 461 Atmospheric Radiation I | AES 471 Radar Meteorology* | AES 472 Satellite Meteorology* | AES 490 Special Topics in Earth & Atmos | AES 495 Directed Study | AES 497 Undergrad Internship | AES 499 Undergrad Research |

---

*Strongly recommended.*