

METEOROLOGY PROGRAM**Department of Earth and Atmospheric Sciences**

Meteorology is the science of the atmosphere. Meteorologists are employed in operational meteorology, meteorological research, applied meteorology, and the media. Meteorologists study global weather and climate, and investigate the influence that human beings exert on earth's climate. The Meteorology Computer Laboratory provides access to real-time weather data and analysis software supported by the UNIDATA Program. Contact the Earth and Atmospheric Sciences Department for additional information: <https://www.msudenver.edu/earth-atmospheric-sciences> or <https://www.msudenver.edu/earth-atmospheric-sciences/meteorology>.

Minor in Meteorology

| Required Meteorology Courses – 7 hours | | | Prerequisites | Semester | Credit Hours |
|--|----------|-------------------------|---|----------|--------------|
| ___ | MTR 1400 | Weather and Climate | (none) | F, S, Su | 3 |
| ___ | MTR 2020 | Weather and Climate Lab | Pre/Coreq MTR 1400, <i>Algebra or</i> ↑ | F, S | 1 (lab) |
| ___ | MTR 3400 | Synoptic Meteorology | MTR 2020 | F | 3 |

Approved Electives* – 12 hours

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|-----|----------|--------------------------------------|------------------------------------|--------------|--------------|
| ___ | MTR 1600 | Global Climate Change | (None) | F, S, Su | 3 |
| ___ | MTR 2410 | Weather Observing Systems | MTR 2020 | S | 3 (with lab) |
| ___ | MTR 3100 | Air Pollution | MTR 2020 OR ENV 1200 | F21, F23 | 3 |
| ___ | MTR 3330 | Climatology | MTR 2020 or (GEG 1100 + quant lit) | S | 3 (with lab) |
| ___ | MTR 3410 | Weather Analysis Techniques | MTR 3400 | S | 3 (with lab) |
| ___ | MTR 3420 | Radar and Satellite Meteorology | MTR 2020 and MTH 1110 | F22 | 3 (with lab) |
| ___ | MTR 3500 | Hazardous Weather | MTR 1400 or MTR 2020 or AES 1400 | Occasionally | 3 |
| ___ | MTR 3710 | Meteorology Internship | See MTR Advisor | F, S, Su | 3 – 6 |
| ___ | MTR 3777 | Field Observations of Severe Weather | MTR 2410, MTR 3410 | Su (May) | 3 (field) |
| ___ | MTR 4210 | Forecasting Laboratory (repeatable) | MTR 3410 | Occasionally | 1 (lab) |
| ___ | MTR 4500 | Mesometeorology | MTR 3410 and MTH 1410 | S23, S25 | 3 |
| ___ | AES 3460 | Weather and Aircrews** | see AES Dept. | F, S | 3 |

*Some Calculus-based courses are also available (see below).

**This course is required for some aviation technology majors. For this course to count towards the meteorology minor, students must consult with an advisor in the Aviation and Aerospace Science Department.

The following courses may also be used as electives, but have additional Math and Physics pre-requisites:

| | | | | | |
|-----|----------|-------------------------------|---------------------------------|----------|--------------|
| ___ | MTR 3430 | Atmospheric Thermodynamics | MTR 2020, MTH 2410, PHY 2311/21 | F22, S24 | 3 |
| ___ | MTR 3440 | Physical Meteorology | MTR 2020, MTH 2410, PHY 2311/12 | F21, S23 | 3 |
| ___ | MTR 3450 | Dynamic Meteorology | MTR 2020, MTH 2410, PHY 2311 | S22, F23 | 3 |
| ___ | MTR 4400 | Advanced Synoptic Meteorology | MTR 2410, MTR 3410, MTR 3450 | F22, S24 | 4 (with lab) |

TOTAL HOURS – 19**IMPORTANT CONSIDERATIONS FOR METEOROLOGY MINORS:**

- Students considering a Meteorology Minor must consult with a Meteorology advisor to develop an academic plan.
- The normal time for completion of the Meteorology Minor is two years (4 semesters). This may vary depending on a student's Meteorology background such as approved transfer courses, professional experience or military training.
- AES 1400 Aviation Weather is *not* an approved Meteorology Minor elective.
- AES 3460 Weather for Aircrews *is* an approved Meteorology Minor elective. See note above.