GEOGRAPHY, GEOLOGY, METEOROLOGY, GIS
A LEADING AMERICAN UNIVERSITY WITH INTERNATIONAL REACH

Meteorology Programs

B.S. Meteorology Professional Program [Extended Major #578] (48 hours – No Minor required) – Effective Fall 2016

Required Courses	(36 hours):
METR 121 Introduction to Meteorology	3 hours*
METR 122 Aviation Meteorology	3 hours
CS 170 Problem Solving & Programming	3 hours
GEOG 300 Writing in the Geosciences	3 hours (Prerequisite GEOG 103 + 110)
GISC 316 Fundamentals of GIS	4 hours (Prerequisite GEOG 103 + 110)
METR 324 Weather Analysis	3 hours (Prerequisite METR 121)
GEOG 391 Spatial Data Analysis	4 hours (Prerequisite MATH 183)
METR 431 Dynamic Meteorology I	3 hours (Prerequisite METR 324)
METR 432 Synoptic Meteorology	3 hours (Prerequisite METR 324)
METR 433 Dynamic Meteorology II	3 hours (Prerequisite METR 324)
METR 437 Mesoscale Meteorology	3 hours (Prerequisite METR 432)
GEOG 499 Professional Development	1 hour (For graduating seniors only)

Elective Courses (12 hours):
Select from any METR, GISC, or GEOG 2xx – 4xx Courses with your advisor (examples include 325, 335, 422, 438, 439, 440, etc.)

To meet the GS-1340 standards for employment with the National Weather Service as a Meteorologist you will need to choose the following courses among your electives: METR 438, METR 325 OR 335, and METR 422 OR GEOG/L 310.

To meet the AMS Certified Broadcast Meteorologist (CBM) Program requirements you will need to meet the GS-1340 standards above and choose the following courses: CHEM 120/121 and GEOG 455.

Additional Program Requirements (not included in the 48-hour program) (25 hours):

- MATH 136 Calculus I — 4 hours
- MATH 137 Calculus II — 4 hours
- MATH 237 Multivariable Calculus — 4 hours
- MATH 331 Differential Equations — 3 hours
- PHYS 255 University Physics I — 4 hours
- PHYS 256 University Physics I Laboratory — 1 hour
- PHYS 265 University Physics II — 4 hours
- PHYS 266 University Physics II Laboratory — 1 hour

Suggested Supporting Colonnade Classes:
GEOG 110 World Regional Geography (Explorations: Social and Behavioral)
GEOG or GEOL 103 Our Dynamic Planet (Explorations: Natural Science)
GEOG 227 Our Dangerous Planet (Connections: Systems)

B.S. Geography and Environmental Studies – Climate Science [Major #675] (52 hours - No Minor Required)

Common Core Requirements	**(26 hours):**
GEOG or GEOL 103 Our Dynamic Planet (Explorations: Natural Science)	**3 hours***
GEOG 110 World Regional Geography (Explorations: Social and Behavioral)	**3 hours***
GEOG 300 Writing in the Geosciences (Colonnade Foundations)	**3 hours***
GISC 316 Fundamentals of GIS	**4 hours**
GISC 317 GIS	**4 hours**
GEOG 391 Spatial Data Analysis	**4 hours**
GEOG 452 * or 475 or 495 Field Research/Practicum/Internship	**4 hours**
GEOG 499 Professional Development	**1 hour**
Required Concentration Courses	**(10 hours):**
METR 121 Meteorology	**3 hours ***
METR 322 Global Climate Systems	**4 hours ***
GEOG 455 Global Climate Change	**3 hours**
Elective Courses	**(16 hours):**

Select from any METR, GISC, or GEOG 1xx – 4xx courses with your advisor (examples include 121, 226, 227, 322, 328, 344, 414, 459, 471, 474, 487 etc.) to meet the 52 unduplicated hours required. At least 26 total program hours must be at the upper-division-level.

Additional Program Requirements (not included in the 52 program hours):
MATH 116 Algebra*
MATH 183 Statistics (A prerequisite for GEOG 391).*

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* Colonnade courses

Minor in Water Resources [# 491 – Major Required]
(22 hours)

Required Courses	(16 hours):
GEOL 111 The Earth	3 hours*
GEOL 113 The Earth Laboratory	1 hour*
METR 121 Intro to Meteorology	3 hours*
GEOL or GEOG 310 Global Hydrology	3 hours
GEOG 427 Water Resource Management	3 hours
GEOG 474 Environmental Planning Apps	3 hours

Elective courses	(6 hours):
GEOL 415 Environment Geology	3 hours
GEOL 440 Hydrogeology	3 hours
GEOL 445 Aqueous Geochemistry	3 hours
METR 422 Climatology	4 hours
METR 426 Applied Meteorology	3 hours
GEOG 428 Applied Groundwater	3 hours
GEOG 487 Environmental Law	3 hours

Effective for Meteorology students beginning the program in Fall 2016.
Last updated: April 12, 2016