

PROGRAM IN BROADCAST METEOROLOGY

Careers

The B.A. in Broadcast Meteorology is offered as an interdisciplinary study of significant breadth combining science and the arts. It is intended for students focused on a career in the media. Students electing this major will have the opportunity to combine their passion for meteorology with full development of their personal communication skills, both written and oral, appropriate to the intended career path. However, those students desiring an advanced, research-oriented degree in Atmospheric Science should pursue the B.S. degree instead. All students contemplating any of the curricula described herein should thoroughly discuss their options with the personnel of the Advisement Services Center (ASC) and an Atmospheric Science undergraduate adviser in the DEAS, before formal declaration of a specific major.

The Bachelor of Arts degree in Broadcast Meteorology is a **restricted major**. For advisement purposes, students should initially declare the Earth and Atmospheric Sciences B.A. as their major; they can subsequently apply for the Broadcast Meteorology B.A. by December 1st of a fall semester, while enrolled in A Atm 210, or by May 1st of a spring semester, while enrolled in A Atm 211. A minimum grade of B- is required in **both** A Atm 211 and A Thr 240 for acceptance into this major.

Degree Requirements for the Major in Broadcast Meteorology

Bachelor of Arts (B.A.): A minimum of 60 credits for the combined major and minor including: A Atm 107N, 210/Z, 211, 305 or A Gog 304, A Atm 311, 335, 390, 408/B, 490, A Com 203, A Gog 290, 496, A Jrl 300/Z, either A Mat 101 and 111 or A Mat 112, A Phy 105N, 108N, A Thr 240, 242.

Non-required but Recommended Courses

A Atm 304, A Csi 101, 201N, A Gog 210, 385, 414, 485, A Jrl 364/Z, A Mat 108, B Mgt 341, B Mkt 310, B Msi 215.

Class Key to the Broadcast Meteorology Major

Broadcast Meteorology B.A. core curriculum:

A Atm 107N; The Oceans (3)
A Atm 210/Z; Atmospheric Structure (4)
A Atm 211; Weather Analysis and Forecasting (4)
A Atm 305; Global Phys. Climatology (3) or A Gog 304
A Atm 311; Severe & Unusual Weather Forecasting (4)
A Atm 335; Meteorological Remote Sensing (3)
A Atm 390; Commercial Meteorology (2)
A Atm 408/B; Hydrometeorology (3)
A Atm 490; Internship in Atmospheric Science (2)
A Com 203; Speech Composition and Presentation (3)
A Gog 290; Introduction to Cartography (4)
A Gog 304; Climatology (3) or A Atm 305
A Gog 496; Geographic Information Systems (3)
A Jrl 300/Z; Introduction to Journalism (3)
A Mat 101; Algebra and Calculus I (3) plus
A Mat 111; Algebra and Calculus II (4) or A Mat 112, Calculus I (4)
A Phy 105N; General Physics I (3)
A Phy 108N; General Physics II (3)
A Thr 240, Acting I (3)
A Thr 242; Voice I (3)

Non-required but recommended courses:

A Atm 304; Air Quality (3)
A Csi 101; Elements of Computing (3)
A Csi 201N; Introduction to Computer Science (4)
A Gog 201; Environmental Analysis (3)
A Gog 385; Introduction to Remote Sensing Environ. (4)
A Gog 414; Computer Mapping (3)
A Gog 485; Advanced Remote Sensing of Environ. (3)
A Jrl 364Z; Science Journalism (3)
A Mat 108; Elementary Statistics (3)
A Mgt 341; Behavioral Foundations of Management (3)
A Mkt 310; Marketing Principles (3)
A Msi 215; Computer Applications in Business (3)

PROGRAM IN ENVIRONMENTAL SCIENCE

Careers

Graduates with a B.S. in Environmental Science will be well qualified for a broad range of positions within the highly interdisciplinary field of environmental science. Consulting firms, industry, federal and state government agencies all require employees with this type of training. The demand for individuals with such a degree is anticipated to remain strong as our society attempts to cope with and address myriad environmental impacts that are occurring on local, regional, national and global scales. Additionally, graduates with this degree are well prepared to consider advanced degrees in the sciences, or other fields such as business administration (M.B.A.) or law (J.D.).

Degree Requirements for the Major in Environmental Science

Bachelor of Science (B.S.): A minimum of 64 credits for the combined major and minor including: A Atm 100N, A Geo 100N, A Geo/Gog 201, 210, 250, 350, A Gog/Pln 330, A Mat 108, 111 or 112, 113, and 108, A Bio 110N/F, A Chm 120N or 130, A Phy 105N, 108N.

Additionally each student must select a concentration in either Earth Science, Atmospheric Science, Biology, or Geography at the time of major declaration (see below). Each concentration represents an emphasis within the overall program that best matches a student's interest and desired career path. For example, those most interested in land surface or hydrological processes would opt for the Earth Science concentration, while those seeking careers in land use planning and geographic information systems might opt for the Geography concentration. Correspondingly, students more interested in air pollution and climate would select the Atmospheric Science track, while those keen on aspects of biological processes and ecology would select the Biology concentration.

Earth Science Concentration (19-21 credits)

A Geo 260; 420: *Electives (any combination of the following):* A Bio 111N, 316, A Geo 330, 435, 450, 466, 497, 498, A Phy 202N.

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Atmospheric Science Concentration (19-21 credits)

A Atm 210/Z, A Geo 260; *Electives (any combination of the following):* A Atm 211, 304/Z, 305, 307/Z, 311, 335, 422, 408B; *Additional electives (maximum of two):* A Geo 420, 450, A Bio 316, A Phy 202N.

Biology Concentration (19-21 credits)

A Bio 111N, 320; *Electives (any combination of the following):* A Bio 212, 306, 314, 316, 319/Z, 325, 365, 366, 402, 422, 432, 436, 442/443, 444, 445, 455, 468, A Chm 440A+B, R Pad/R Pub 465.

Geography Concentration (19-21 credits)

A Geo 260; *Electives (any combination of the following):* A Gog 290, 293, 304, 385, 390, 404, 414, 431, 479, 485, A Gog/Pln 496, A Geo 420, 435.

Class Key to Environmental Science Major

Environmental Science B.S. core curriculum:

A Atm 100N; The Atmosphere (3)
A Geo 100N; Planet Earth (3)
A Geo/Gog 201; Environmental Analysis (3)
A Geo 210; Earth Materials (3)
A Geo 250; Energy and Resources (3)
A Geo 350; Environmental Geochemistry (3)
A Gog 330; Principles of Environ. Manag. (3)
A Mat 111 or 112; Algebra and Calculus II or Calculus I (4)
A Mat 113; Calculus II (4)
A Mat 108; Statistics (3)
A Bio 110N/F; General Biology I (4)
A Chm 120N; General Chemistry I (3) or A Chm 130, Chemical Principles I: Advanced General Chemistry I
A Phy 105N+108N; General Physics I and II (6)

Earth Science Concentration (19-20 credits)

Required:
A Geo 260N; Earth Surface Proc. & Hazards (3)
A Geo 420; Instrum. Anal. in Environ. Sci. (3)

Electives (any combination):
A Bio 111N; General Biology II (4)
A Geo 230; Stratigraphy, Sedimentology, and the Fossil Record (3)
A Geo 231; Field Excursions for Stratigraphy (2)
A Bio 316; Biogeography (3)

A Geo 435; Geohydrology (3)
A Geo 450; Climate Change (4)
A Geo 466; Marine/Estuary Systems (3)
A Geo 497; Independent Study (at USGS or other local organization) (1-3)
A Geo 498; Honors Research (3)
A Phy 202N; Environmental Physics (3)

Atmospheric Science Concentration (19-20 credits)

Required:
A Atm 210/Z; Atmospheric Structure (3)
A Geo 260N; Earth Surface Proc. & Hazards (3)

Electives (any combination):
A Atm 211; Weather Analysis and Forecasting (4)
A Atm 304/Z; Air Quality (3)
A Atm 305; Global Physical Climatology (3)
A Atm 307/Z; Atmospheric Chemistry (3)
A Atm 311; Severe and Unusual Weather and Forecasting (3)
A Atm 335; Meteorological Remote Sensing (3)
A Atm 422; Meteorological Instrumentation & Measurement (2)
A Atm 408B; Hydrometeorology (3)

Additional electives (maximum of two):
A Geo 420; Instrum. Anal. in Environ. Sci.(3)
A Geo 450; Climate Change (4)
A Gog 304 Climatology (3)
A Bio 316; Biogeography (3)
A Phy 202N; Environmental Physics (3)

Biology Concentration (19-20 credits)

Required:
A Bio 111N; General Biology II (4)
A Bio 320; Ecology (3)

Electives (any combination):
A Bio 199; Cont. Issues in Bio Sciences (1-3)
A Bio 212; Introductory Genetics (4)
A Bio 306; Marine Biology (3)
A Bio 314; General Bacteriology (3)
A Bio 316; Biogeography (3)
A Bio 365; Biological Chemistry (3)
A Bio 366; Biological Chemistry II (3)
A Bio 399; Supervised Research (1-3)
A Bio 402; Evolution (3)
A Bio 422; Biological Architecture (3)
A Bio 442/443; Restoration Ecology (3+1)
A Bio 444; Biology of Birds (3)
A Bio 445; Experimental Ecology (3)
A Bio 455; Plant Ecology (4)
A Bio 499; Supervised Research (1-3)
A Chm 440 A; Comprehensive Biochemistry A (3)
A Chm 440 B; Comprehensive Biochemistry B (3)
R Pad/ R Pub 465/565; Hudson River Watershed: Environment, Society and Policy (3)

Geography Concentration (19-20 Credits)

Required:
A Geo 260N; Earth Surface Proc. & Hazards (3)

Electives (any combination):
A Gog 290; Introduction to Cartography (4)
A Gog 293; Use and Interpretation of Aerial Photographs (3)
A Gog 304; Climatology (3)
A Gog 385; Introduction to Remote Sensing of the Environment (4)
A Gog 390; Intermediate Cartography (3)
A Gog 404; Topics in Physical Geography (1-4)
A Gog 414; Computer Mapping (3)
A Gog 431; Climatic Change (3)
A Gog 479; Fundamentals of Applied GIS (3)
A Gog 485; Advanced Remote Sensing of the Environment (3)
A Gog/Pln 496; Geographic Information Systems (3)
A Geo 420; Instrum. Anal. in Environ. Sci. (3)
A Geo 435; Geohydrology (3)