School of Natural Resources

M.S. & Ph.D. Specializations in

Bio-Atmospheric Interactions

PROGRAM DESCRIPTION

The Bio-Atmospheric Interactions specialization was designed to provide students with a unique learning environment to promote understanding of the interactions between the atmosphere and the biosphere and to encourage cooperation among the community of scientists within the bio-atmospheric research area.

ADVISING FACULTY

Mark Anderson	Synoptic & Satellite Meteorology
Tim Arkebauer	Soil-Plant-Water Relationships
Tala Awada	Plant Ecophysiology
Ken Dewey	Climate Variations
Qi Steven Hu	Regional & Global Climate Variations
Ken Hubbard	Climate Modeling
Clinton Rowe	Physical Meteorology / Climatology
Shashi Verma	Micrometeorology
Elizabeth Walter-Shea	Remote Sensing / Micrometeorology
Albert Weiss	Crop Simulation Modeling
Don Wilhite	Climate Impact Assessment / Drought Management

COURSE EXAMPLES

Agricultural Climatology
Bio-Atmospheric Instrumentation
Climate and Society
Crop Growth and Yield Modeling
Global Climate Change
Microclimate: The Biological Environment
Solar Radiation Interactions at the Earth's Surface
Turbulent Transfer in the Atmospheric Surface Layer

RESOURCES/FACILITIES

The School of Natural Resources (SNR) is housed in the newly renovated Hardin Hall on UNL's beautiful East Campus. The new building has excellent laboratory, office and classroom facilities to support research, teaching and outreach regarding natural resources.

In addition, the SNR includes the Agro-Meteorology Laboratory at the University of Nebraska Agricultural Research and Development Center near Mead; measuring stations for the National Atmospheric Deposition Program and the U.S. Department of Agriculture UV-B Monitoring Network; the High Plains Climate Center and its Automated Weather Data Network; and the National Drought Mitigation Center.

University of Nebraska Lincoln

IANR

Admission Requirements

All potential SNR graduate students must meet the following minimum requirements or provide the requested information:

- A bachelor's degree with a background that includes at least one course in each of the following disciplines with a minimum of eight courses total:
    - Mathematics (must include one semester of Calculus)
    - Physics
    - Chemistry
    - Life Sciences (Agronomy, Biology, Ecology, Forestry, Wetlands, etc.)
    - Earth Sciences (Geology, Meteorology, Oceanography, Soils, etc.)
- GRE scores of 500 verbal, 620 quantitative, and 4.0 analytical writing
- TOEFL score of 600 paper-, 300 computer- or 79 web-based (applies only to international applicants for whom English is not the first language)
- GPA of 3.0 (on a 4-point system)
- Three letters of recommendation
- Statement of purpose

In addition to the SNR minimum admission requirements, the student should have an appropriate science background. This minimum background should include two semesters of calculus and two semesters of physics.

Career Opportunities

Students with this specialization may find employment in teaching, research or applied fields. Possible jobs for students completing the program include secondary-level teacher, research project assistant and atmospheric specialist.

Contact Information

Graduate Secretary
School of Natural Resources
150a Hardin Hall
University of Nebraska-Lincoln
Lincoln, NE 68583-0921
Phone: (402) 472-5355
Fax: (402) 472-3461
email:snrsgradsec@unl.edu
http://snr.unl.edu/

"The Bio-Atmospheric specialization within the School of Natural Resources has provided me with an interdisciplinary education that satisfies my scientific curiosity and provides me with practical skills that will be extremely useful in my future career."

– George Burba, Ph.D.