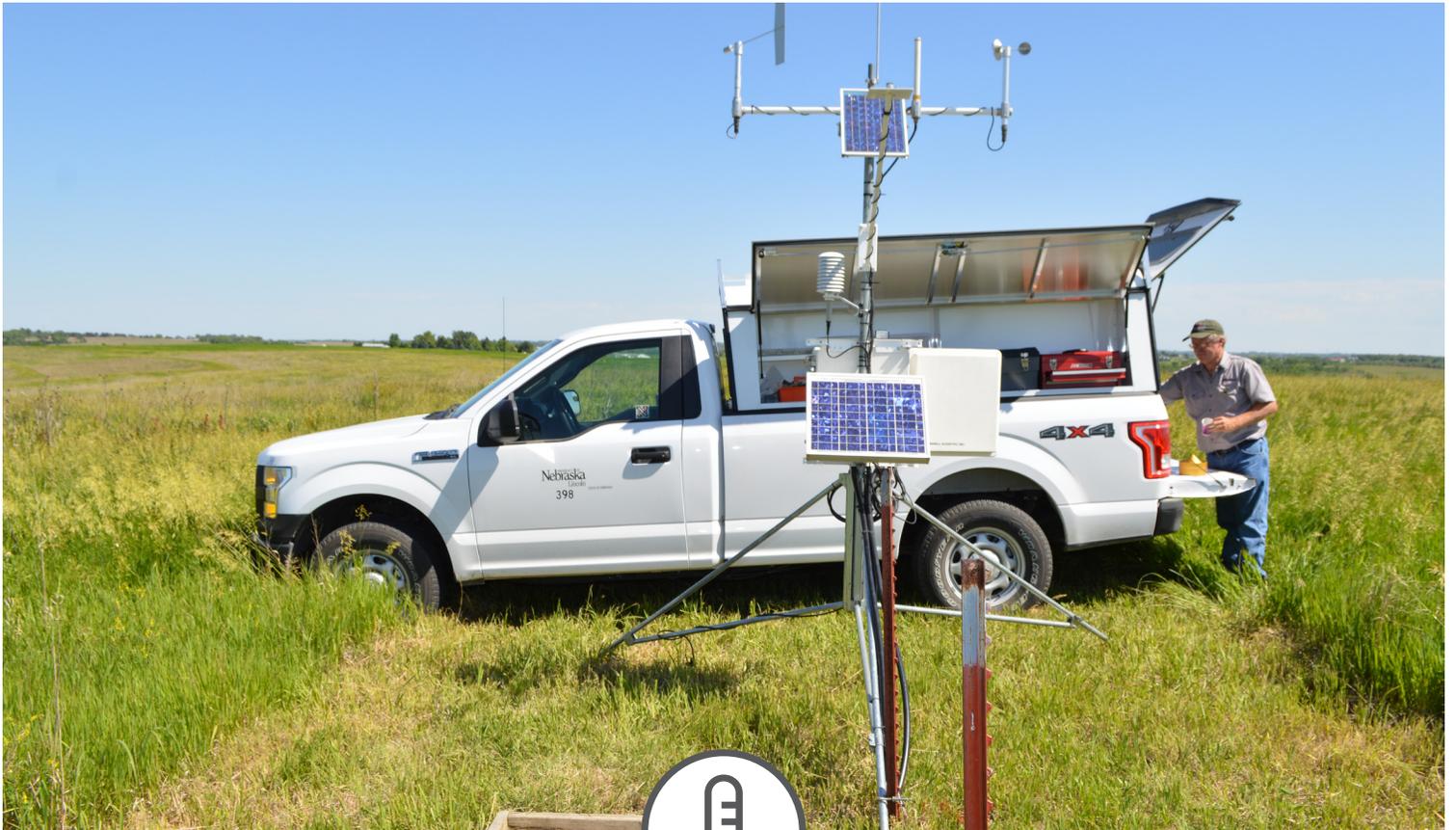


BIO-ATMOSPHERIC INTERACTIONS

Available to both MS and PhD candidates.



Contact Information

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

Students in the Bio-Atmospheric Interactions specialization focus on describing the state of the environment (atmospheric, vegetation and soil) by addressing mass (e.g., carbon, water vapor) and energy (radiative and heat) exchange between the biosphere and atmosphere. This understanding is useful to studies of biogeochemistry, atmosphere, remote sensing, hydrology and ecology. Measuring and modeling of the mass and energy fluxes is essential to understanding bio-atmospheric interactions.

A related graduate degree program in Agronomy & Horticulture has a specialization in Agricultural Meteorology and selected faculty from the School of Natural Resources can advise students in this specialization.

BIO-ATMOSPHERIC INTERACTIONS

Faculty Advisors

Dr. Tala Awada | tawada2@unl.edu

Grasslands and forest ecology, plant ecophysiology, leaf gas exchange, water relations in plants, plants and microclimate, ecology, agroecosystems, riparian ecosystems, ecophysiology, resilience, biodiversity, invasive species, population dynamics, urban forestry, wetland ecosystems

Dr. Deb Bathke | dbathke2@unl.edu

Drought planning, drought monitoring, drought risk management, education and engagement, decision support tools, climate extremes and variability

Dr. Trenton Franz | tfranz2@unl.edu

Hydrogeophysics

Dr. John Gamon | jgamon@unl.edu

Remote sensing at multiple scales, plant biodiversity, plant physiology, evapotranspiration, photosynthesis and respiration, mass and energy exchange

Dr. Mike Hayes | mhayes2@unl.edu

Drought risk management, natural hazards and disaster management, planning, impacts and vulnerability assessments, climate variability and change, extreme events, adaptation strategies, food and water security

Dr. Martha Shulski | mshulski3@unl.edu

Climate variability and change, climate impacts, climate monitoring and assessment, high latitude climatology

Dr. Andy Suyker | asuyker1@unl.edu

Climate change and carbon flux

Dr. Betty Walter-Shea | ewalter-shea1@unl.edu

Field-based remote sensing, agricultural meteorology, environmental biophysics, bio-atmospheric interactions