University at Albany Department of Atmospheric and Environmental Sciences

Ross A. Lazear Academic Instructor

It all started when...

Weather-obsessed kid growing up in Minnesota Bachelor of Science in Atmospheric Science at the University of Wisconsin, in Madison, WI



Summer before senior year: Began research project with Professor Michael Morgan



My extremely messy research lab

Taking shelter during Hurricane Katrina – 29 August 2005

Graduate School

Master of Science degree at Wisconsin (RA)

- Advisor: Michael Morgan
- Continued research from undergrad, as well as additional projects, several conferences

Fourth semester:

- Teaching assistant for intro weather and climate
- Fell in love with teaching!

My position at UAlbany

<u>Teach</u>

Weather Analysis and Forecasting Severe Weather Meteo. Data Analysis and Visualization

<u>Research</u>

<u>Advisement</u>

Mentoring and career guidance

<u>Recruitment</u>

Manage data visualization spacesScience on a SphereMap roomObservation deck





DEPARTMENT OF ATMOSPHERIC AND ENVIRONMENTAL SCIENCES

Department of Atmospheric & Environmental Sciences

Contact me at:

Ross Lazear rlazear@albany.edu

Web: http://albany.edu/daes/



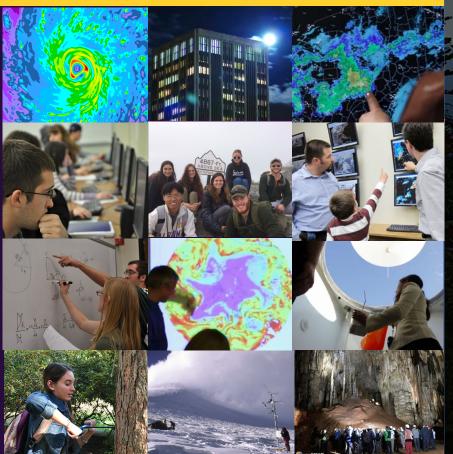


DEPARTMENT OF ATMOSPHERIC AND ENVIRONMENTAL SCIENCES

B.S. in Atmospheric Science (meteorology and more)

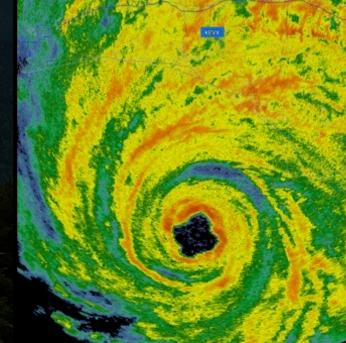
B.S. in Environmental Science

B.S. in Climate Science (coming soon)

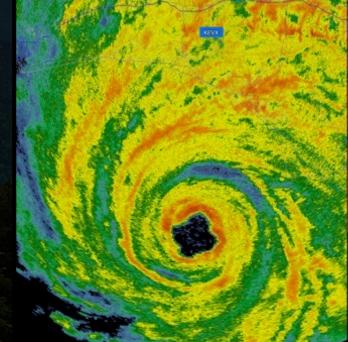














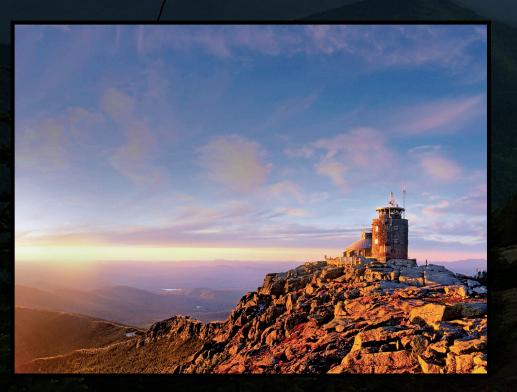




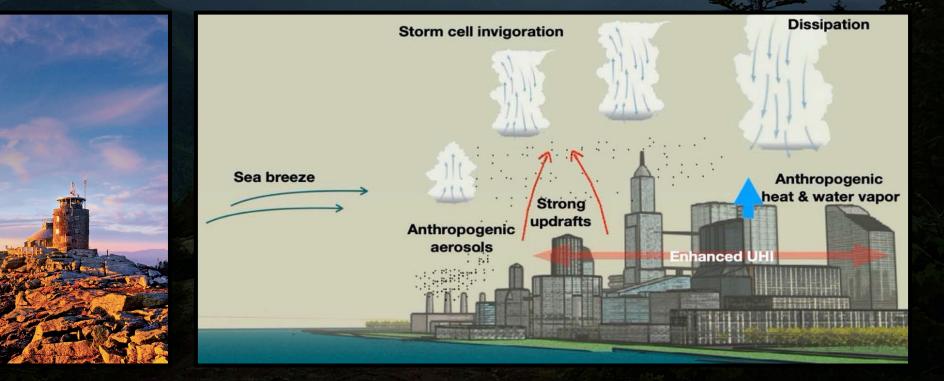


World-class teaching and research in: Atmospheric chemistry, air quality, and coastal–urban environments

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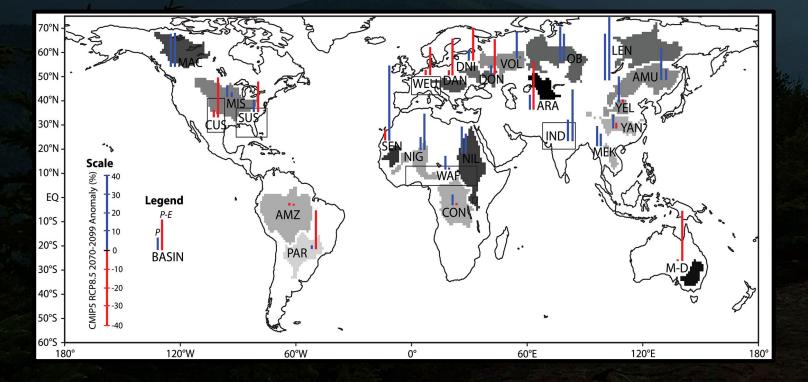


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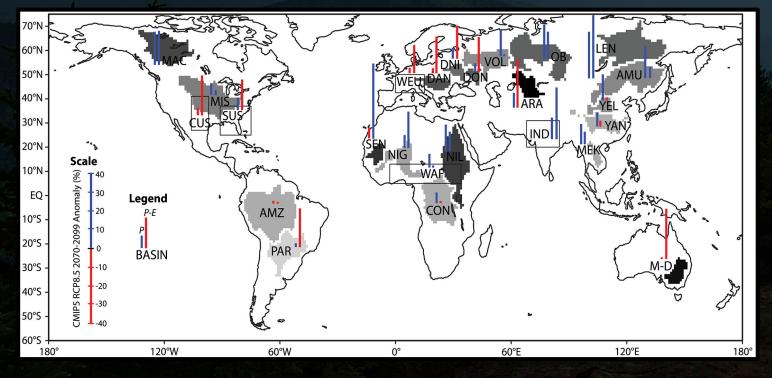


World-class teaching and research in: Boundary layer meteorology, and air-land-sea interactions

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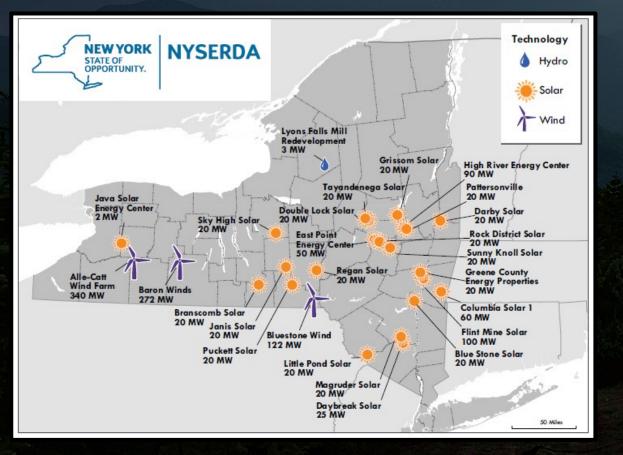
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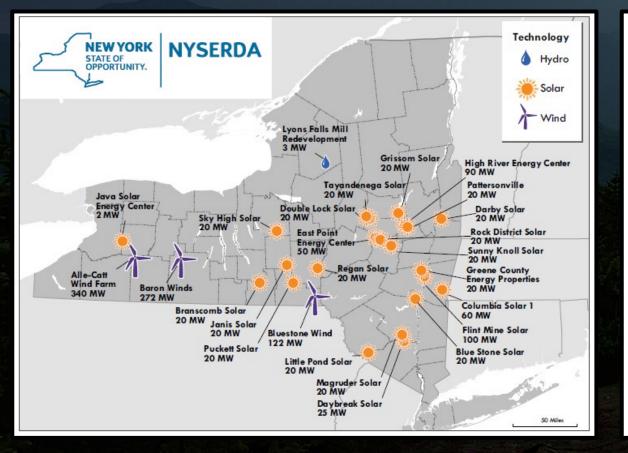


World-class teaching and research in: Renewable energy

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World-class teaching and research in: Renewable energy



2020 Outages in the U.S.: Duration and Number of Events



DEPARTMENT OF ATMOSPHERIC AND ENVIRONMENTAL SCIENCES

B.S. in Atmospheric Science

Broad foundation in four fundamental areas:

- Synoptic
 - Observations and weather forecasting
- Dynamic
 - Theory and computer modeling
- Physical
 - Clouds and atmospheric chemistry
- Climate
 - Land-ocean-atmosphere processes
- Minors: Broadcast Meteorology/Sustainability/Math

Also available:

- Emergency Preparedness, Homeland Security, and Cybersecurity Minor (CEHC)
- Masters in Secondary Education (5-year program)



DEPARTMENT OF ATMOSPHERIC AND ENVIRONMENTAL SCIENCES

B.S. in Environmental Science

Core environmental fundamentals + four specializations:

- Climate Change: long-term variability and change → Climate Science B.S.
- **Ecosystems**: ecology, biodiversity, sustainability
- **Geography:** land-use planning, resource management, GIS
- Sustainability Science and Policy: renewable energy, air quality

Also available:

- Sustainability Minor & Emergency Preparedness, Homeland Security, and Cybersecurity Minor
- Geographic information systems (GIS) certificate



ATMOSPHERIC AND ENVIRONMENTAL SCIENCES

B.S. in Atmospheric ScienceB.S. in Environmental ScienceB.S. in Climate Science

Key attributes of curricula:

- Firm foundation in science & problem solving
- Firm connections to applications & society
- Small class sizes
- Professors are accessible and interested
- Professors are active leading researchers
- Professors are award-winning teachers
- Hands on learning: computing, labs, field
- Internship & research opportunities

DEPARTMENT OF ATMOSPHERIC AND ENVIRONMENTAL SCIENCES

Hands-on research, internships and student involvement



ATMOSPHERIC AND ENVIRONMENTAL SCIENCES

Demand for atmospheric and environmental scientists in a variety of fields



DEPARTMENT OF ATMOSPHERIC AND ENVIRONMENTAL SCIENCES

Where some of our recent graduates are now:

- Graduate school
- National Weather Service
- United States Geological Survey
- US & NY Environmental Protection
- Renewable energy companies
- Local and national media
- New York State Mesonet
- Environmental Consulting
- Emergency Preparedness
- Risk assessment in Insurance / Financial sectors



Shade Tree Meteorology LLC Weather Information-Tailored to Your Needs



Department of Education





Environmental Protection

Science for a changing world















Questions?