



UNIVERSITY <sup>AT</sup> ALBANY  
STATE UNIVERSITY OF NEW YORK

# Department of Atmospheric and Environmental Sciences

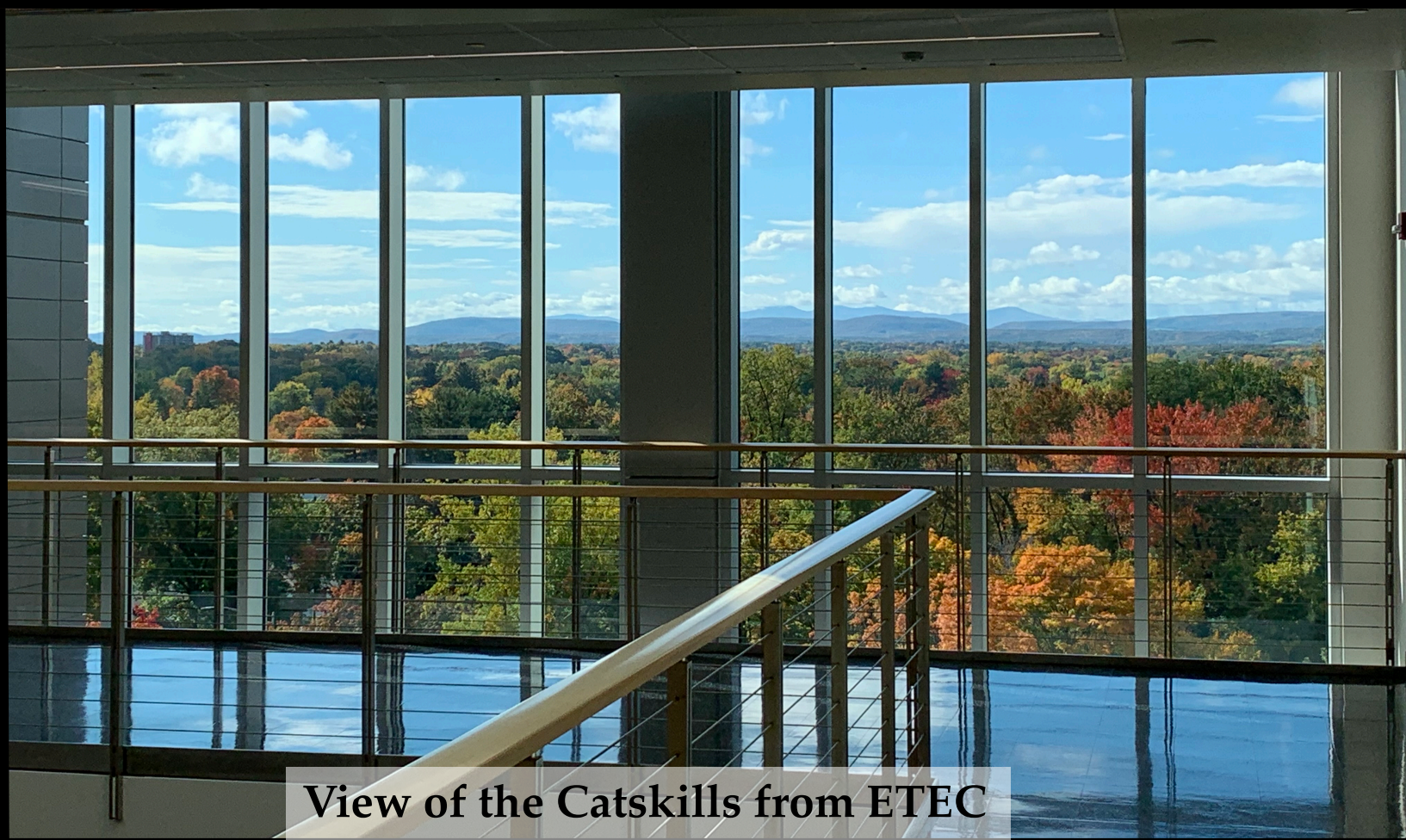
The Department of Atmospheric and Environmental Sciences (DAES) and Atmospheric Sciences Research Center (ASRC) are housed in the beautiful ETEC Building, on the east side of UAlbany's Uptown Campus.

Completed in 2021, the ETEC building is home to:

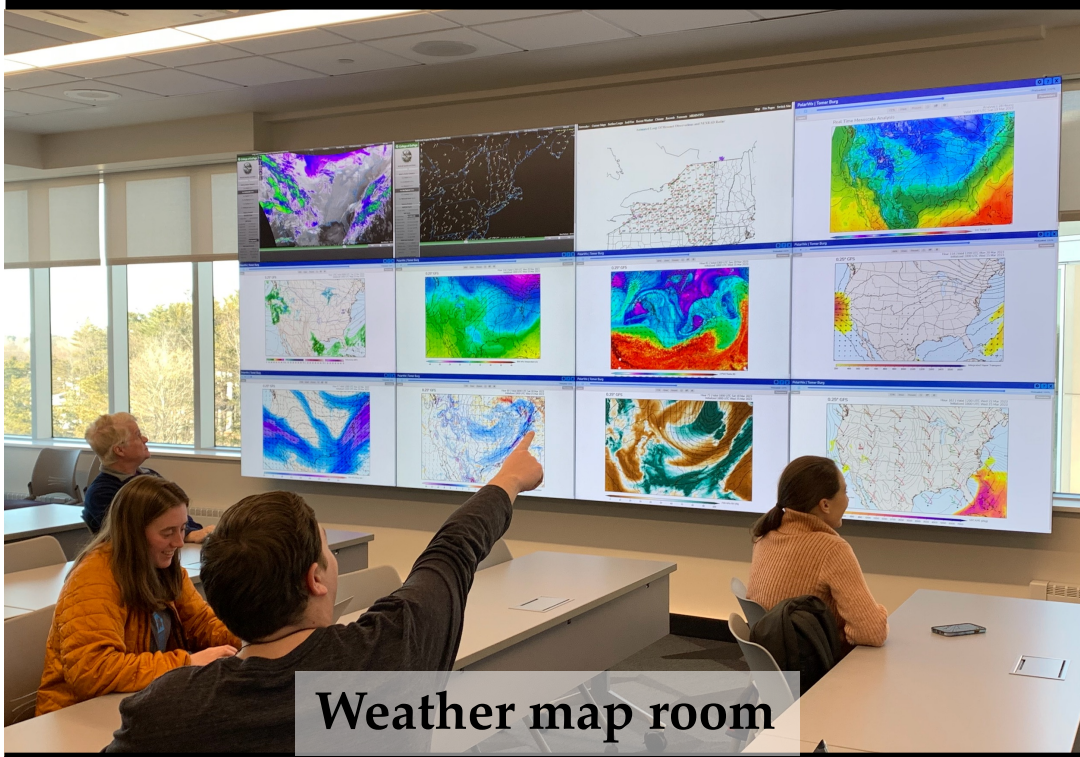
*Atmospheric and Environmental Sciences  
Atmospheric Sciences Research Center  
Albany's National Weather Service WFO  
State Weather Risk Communication Center (SWRCC)  
New York State Mesonet (NYSM)  
Center of Excellence in Weather and Climate Analytics  
Emergency Preparedness, Homeland Sec., Cybersecurity  
Environmental and Sustainable Engineering  
Electrical and Computer Engineering  
...and more*



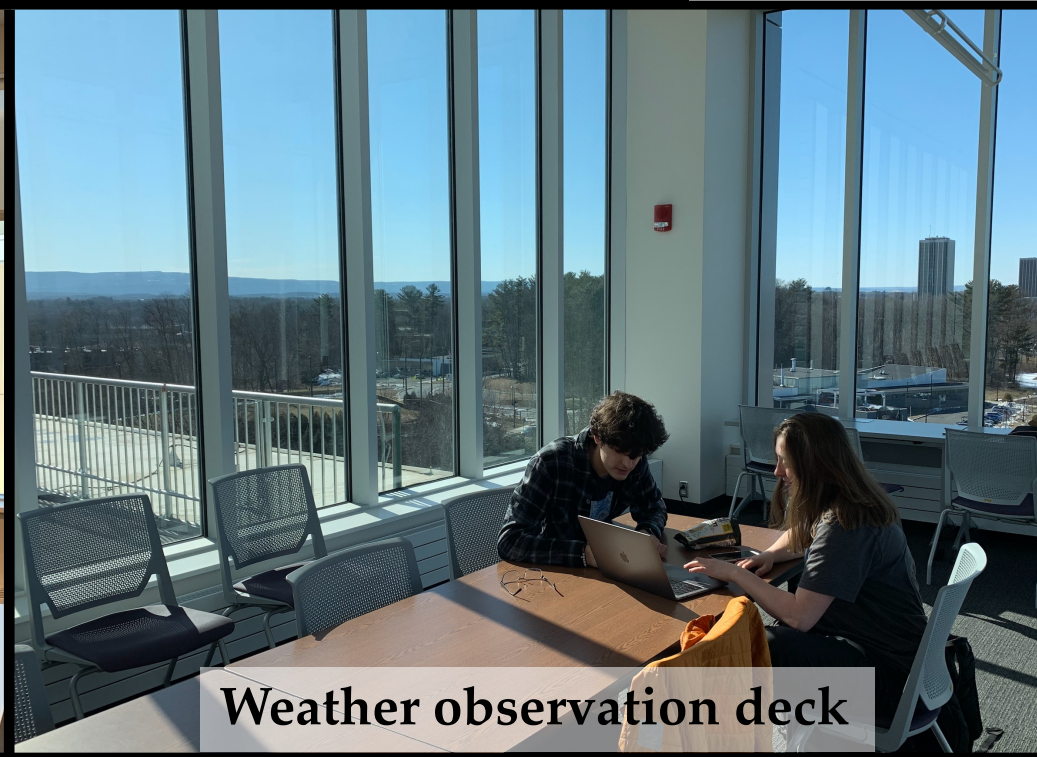
3<sup>rd</sup> floor atrium collaboration space



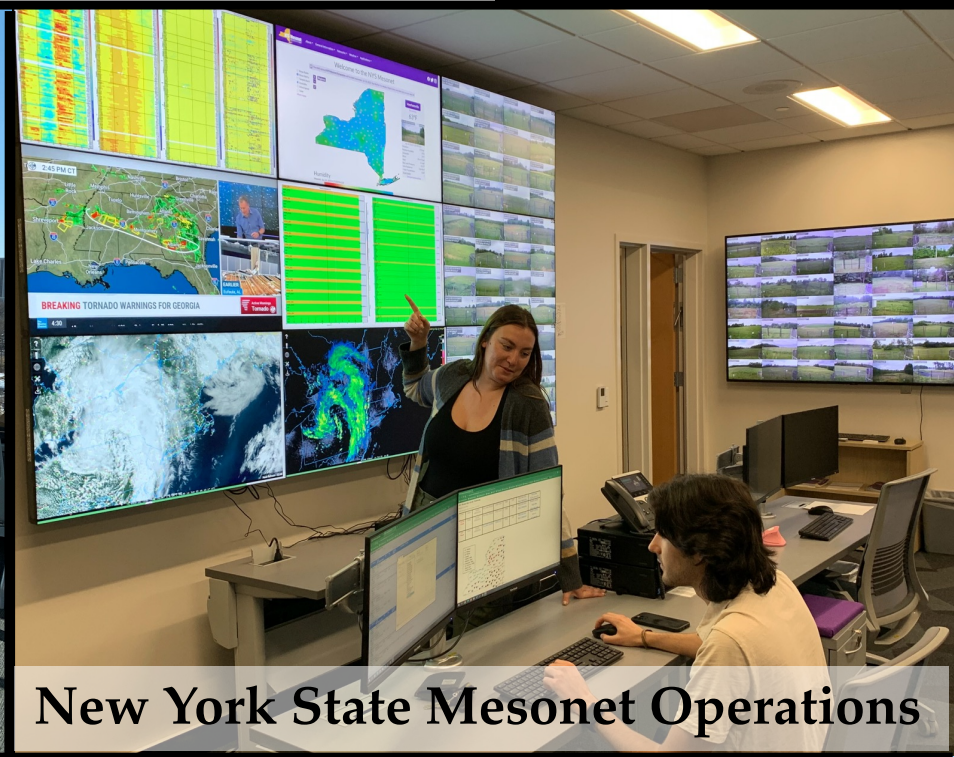
View of the Catskills from ETEC



Weather map room



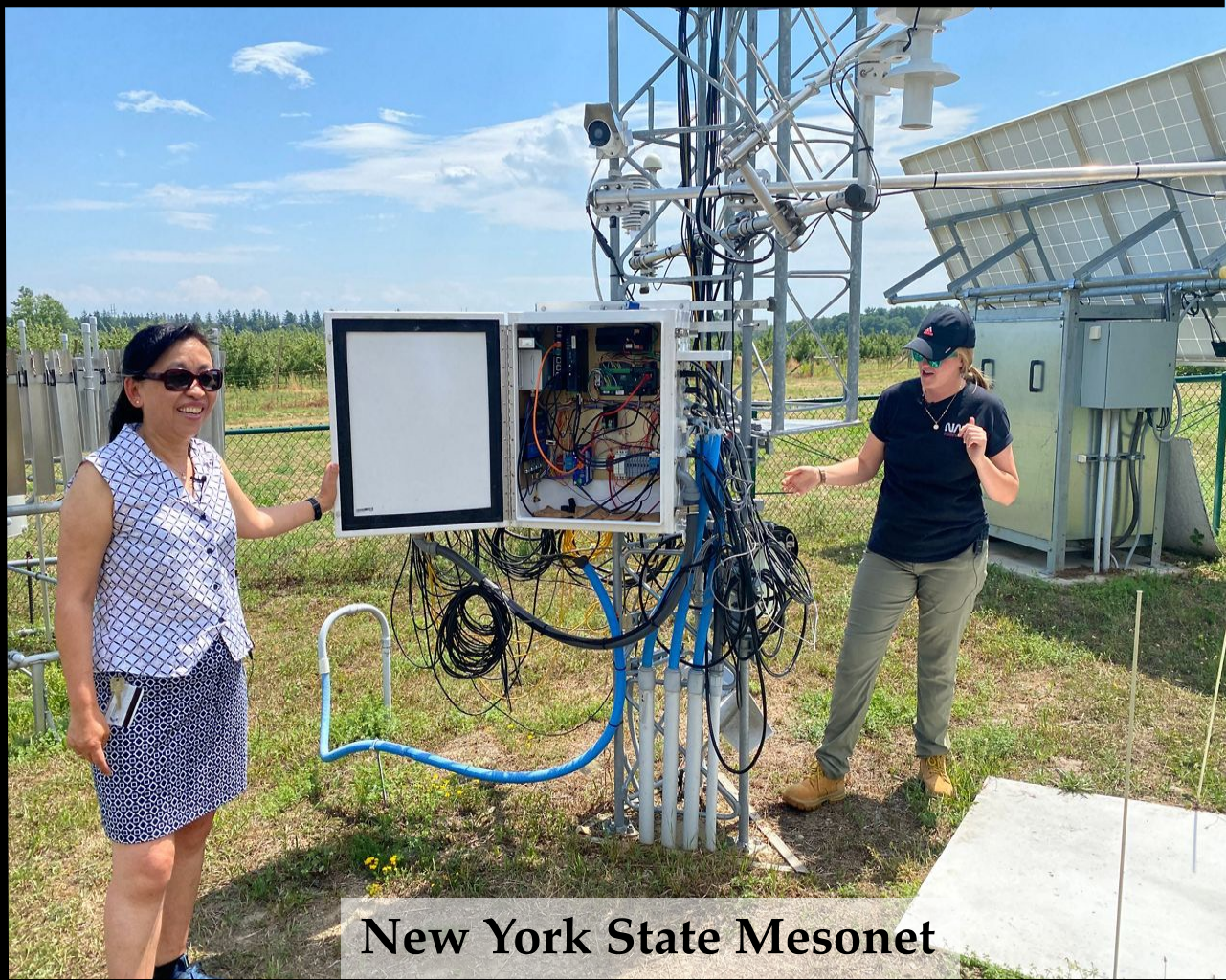
Weather observation deck



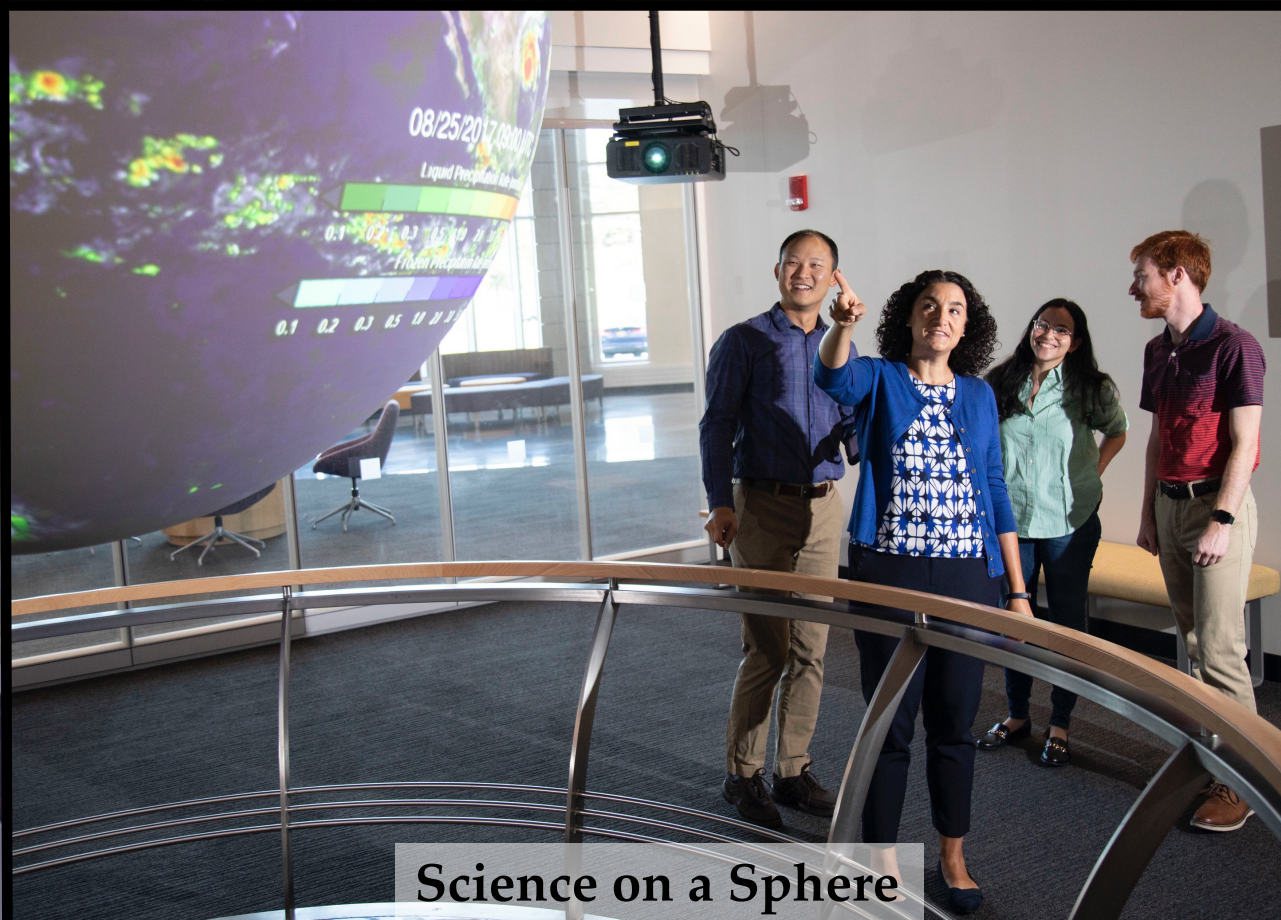
New York State Mesonet Operations



3<sup>rd</sup> floor atrium collaboration space



New York State Mesonet



Science on a Sphere





## Department of Atmospheric and Environmental Sciences

### Atmospheric Science PhD and MS Program

#### Course Requirements

- Two courses in Atmospheric Physics and Chemistry (ATM 504 and 505)
- Two courses in Atmospheric Dynamics (ATM 500 and one of several electives)
- Two additional classes with ATM designation (Most students end up taking more)

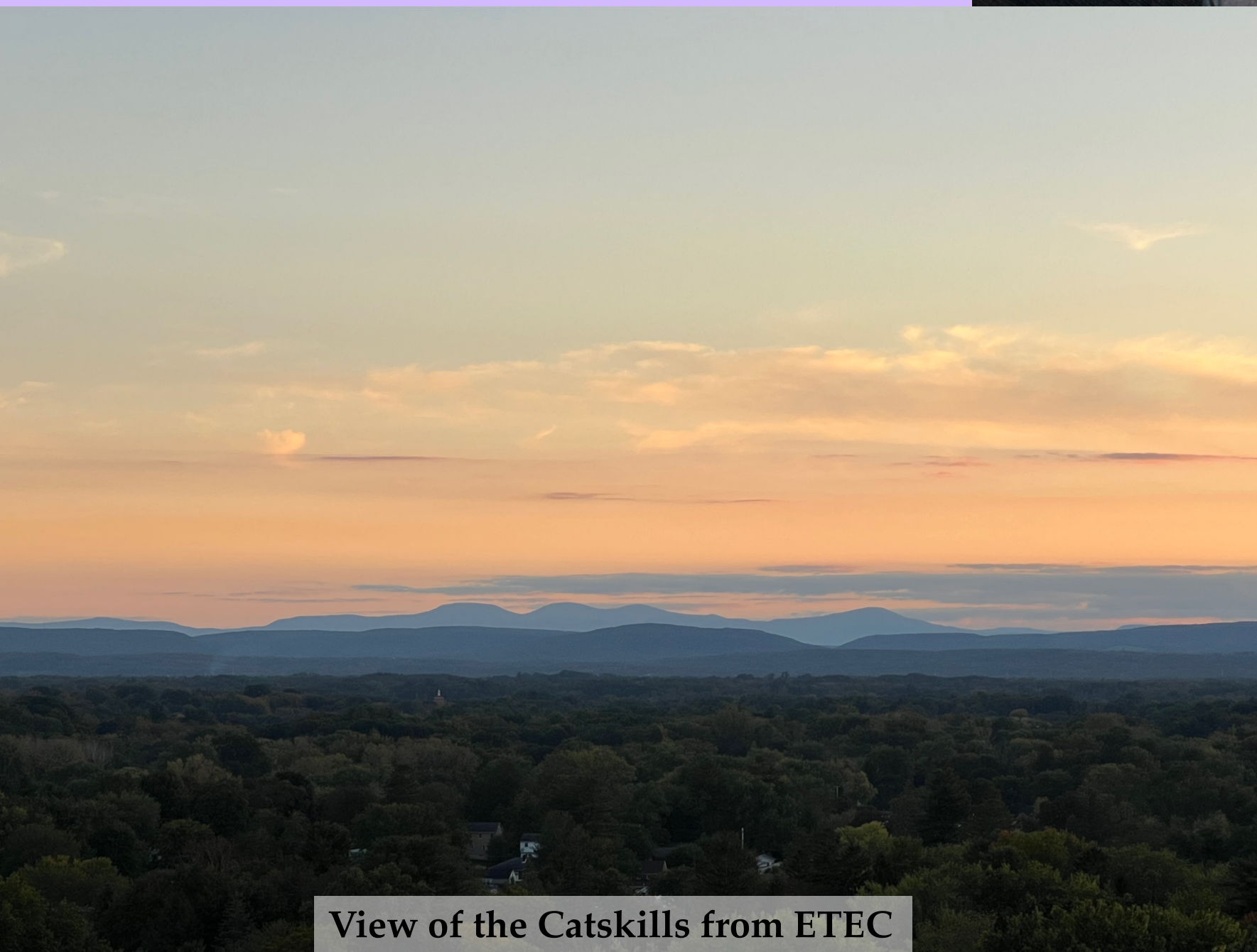
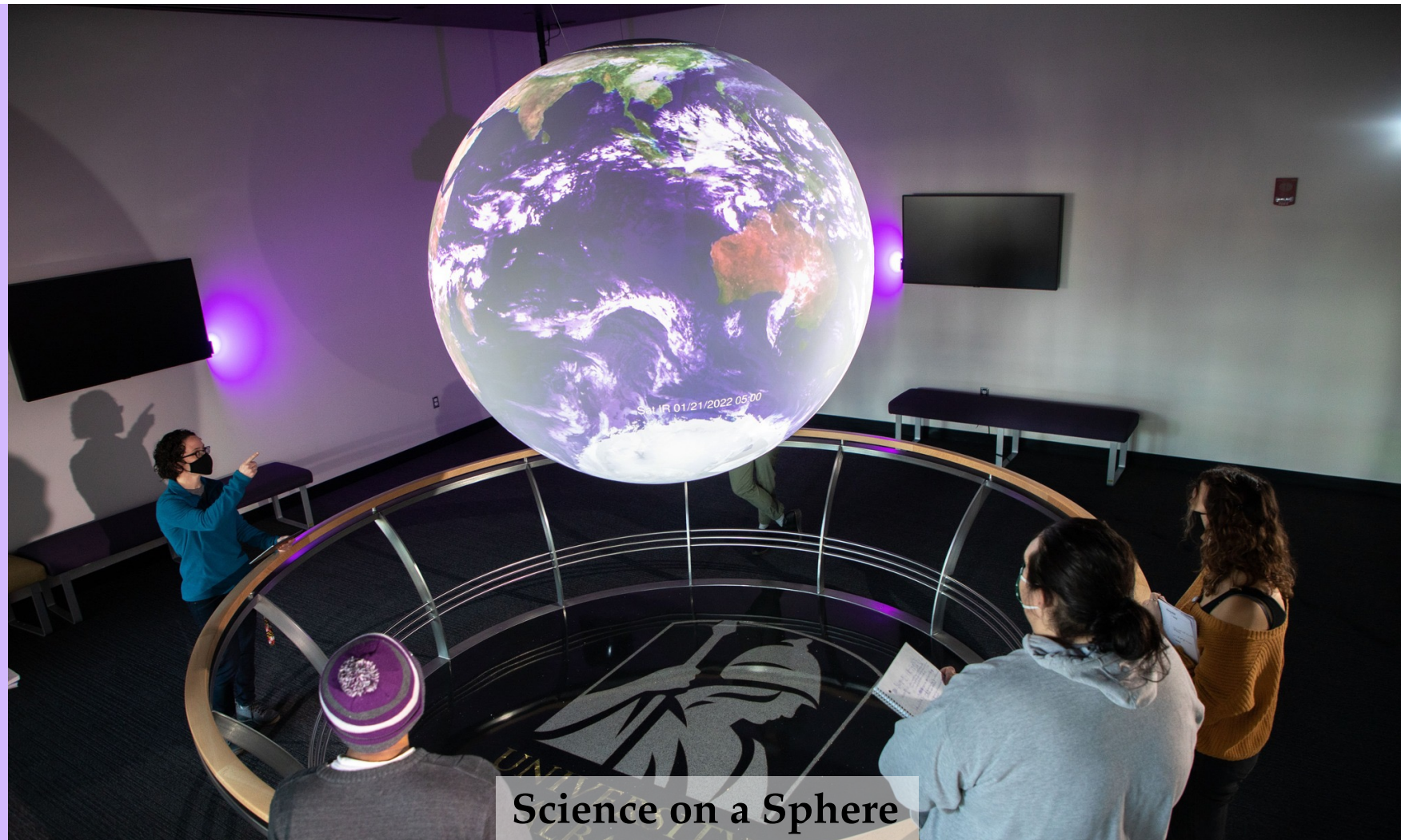
#### Additional Requirements

##### Masters Degree

~ MS Thesis (Two to three years)

##### PhD Degree

- ~ PhD written exam (Typically in third year)
- ~ Written PhD proposal (Typically fourth year)
- ~ PhD thesis (Five to six years, without prior MS)



#### Assistantships

##### Research assistant (RA)

~ Students paid by their advisor's grant

##### Teaching assistant (TA)

- ~ Students paid by University during academic year, advisor's grant during summer
- ~ Assigned to assist an instructor in teaching a specific course



### Applied Atmospheric Science MS Program

#### Course requirements

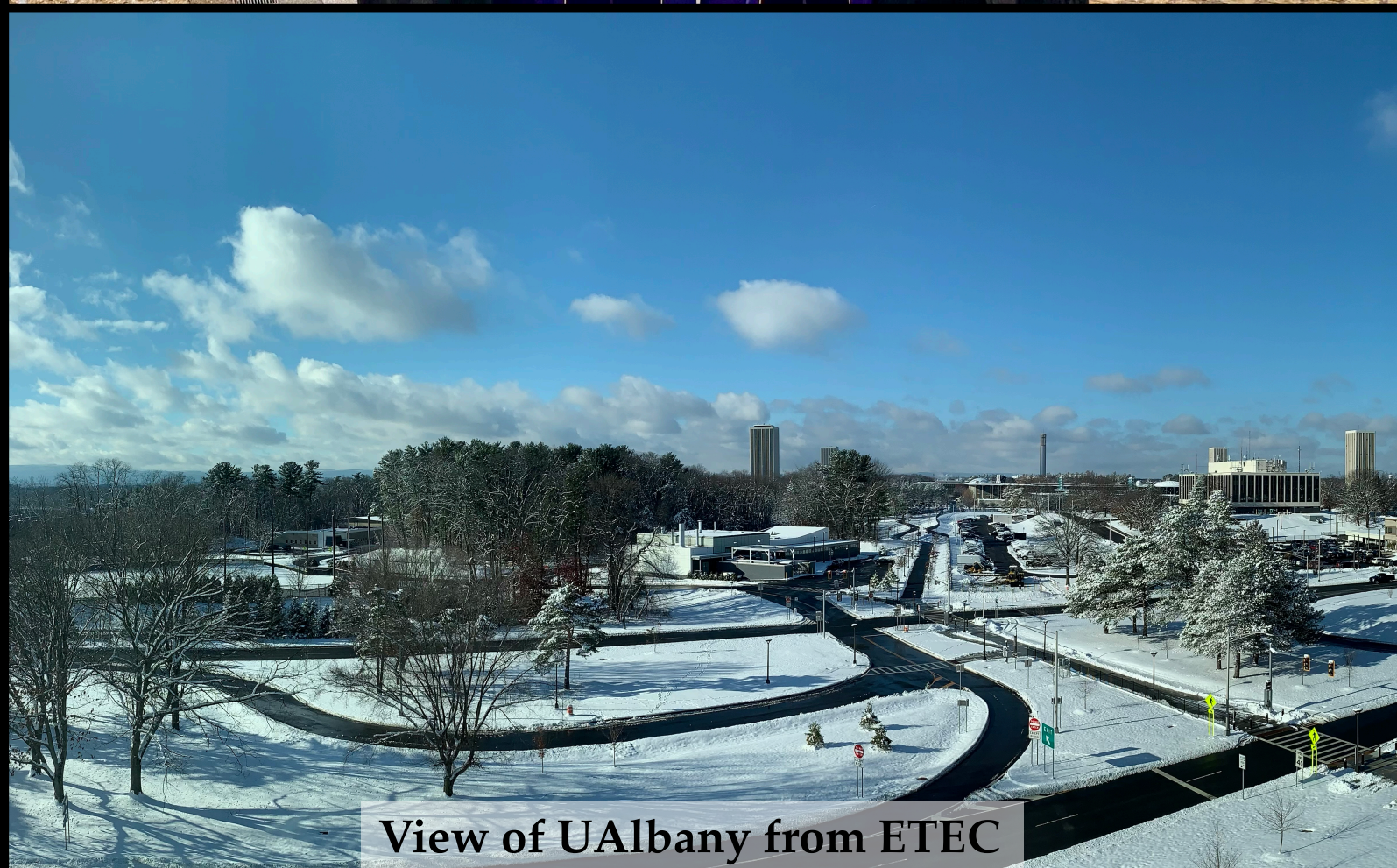
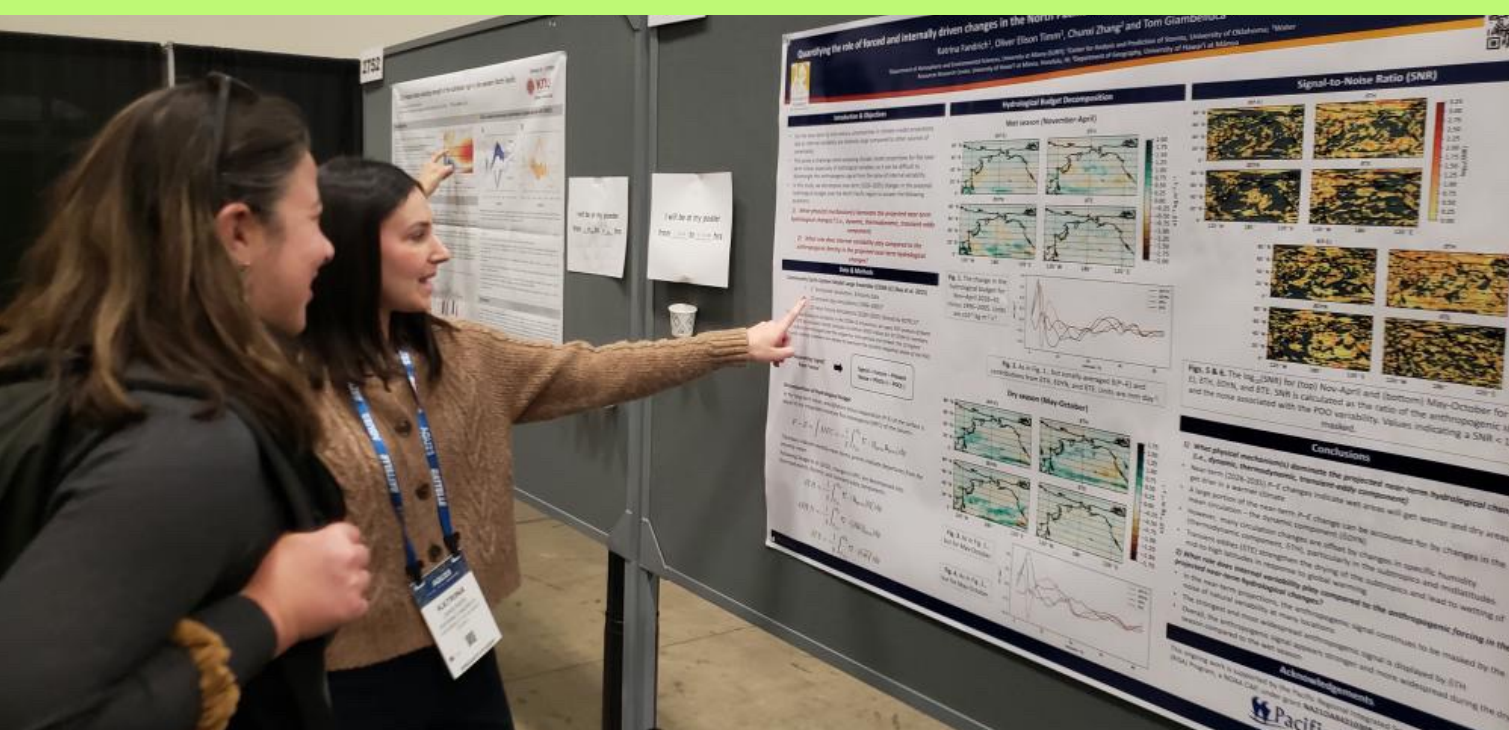
Choose *four* of:

- ~ Synoptic Laboratory II
- ~ Climate Variability and Predictability
- ~ Renewable Energy
- ~ Advanced Geophysical Data Analysis and Visualization
- ~ Applications of Subseasonal to Seasonal Dynamics
- ~ Weather, Climate Change, and Societal Impacts
- ~ Climate Change
- ~ Applied Data Analysis in Atmos./Env. Science
- ~ Applications of Numerical Weather Prediction
- ~ Energy, Environment, and Climate Change
- ~ Remote Sensing

**Capstone requirement:** Arranged internship

**Remaining courses from one of four tracks:**

- ~ Business
- ~ Data Analytics
- ~ Policy and Emergency Preparedness





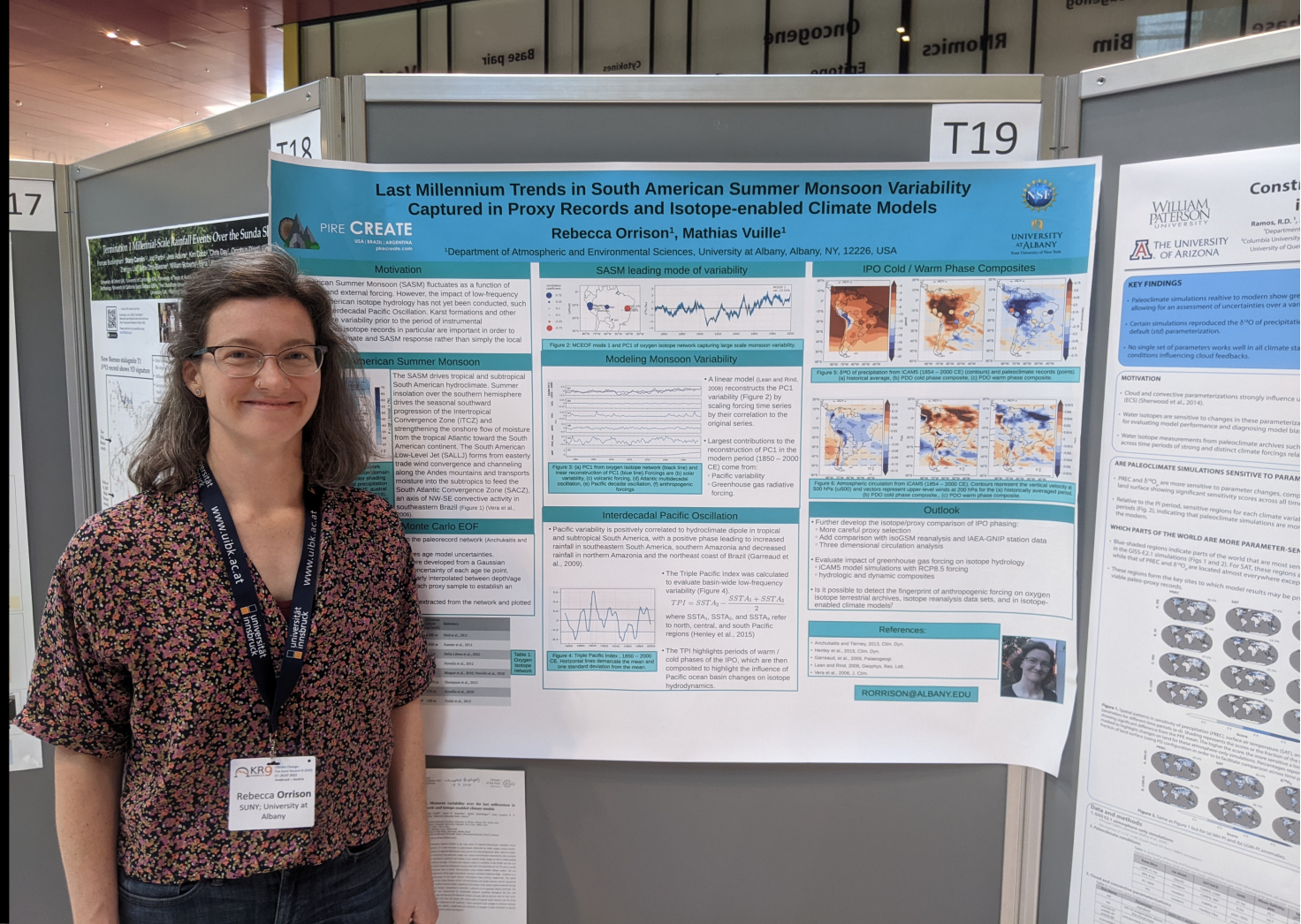


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# Department of Atmospheric and Environmental Sciences



Severe weather field research



Faculty in the **Department of Atmospheric and Environmental Sciences** and the **Atmospheric Sciences Research Center** provide research opportunities and courses in the following areas:

Synoptic–Dynamic Meteorology • Tropical Cyclones • Remote Sensing

Climate Change • Paleoclimatology • Artificial Intelligence

Numerical Weather Prediction • Climate Dynamics • Atmospheric Chemistry

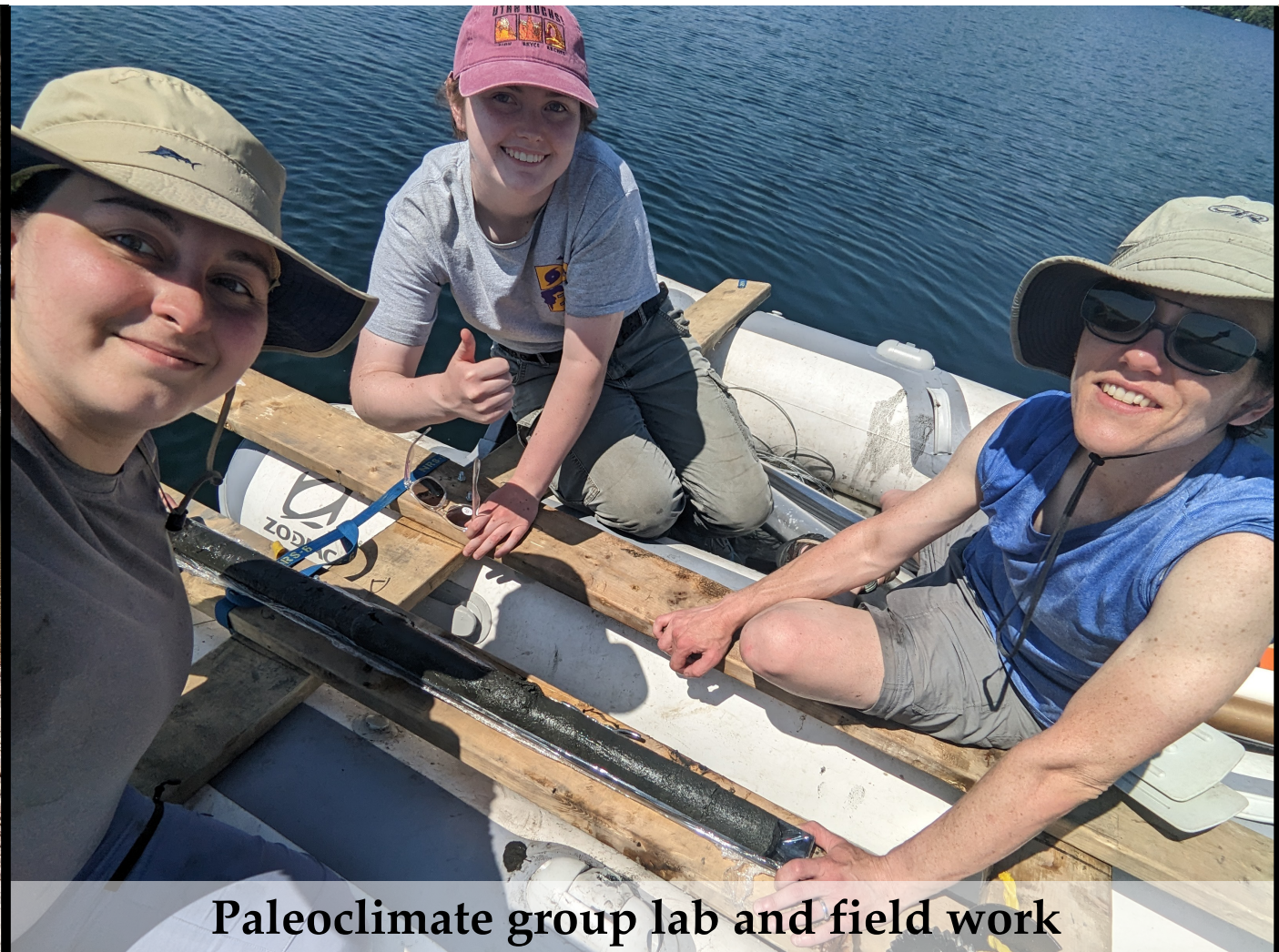
Mesoscale Meteorology (Convection, Severe Weather, Lake-effect Precipitation)

Urban Meteorology • Boundary Layer Meteorology • Air Pollution

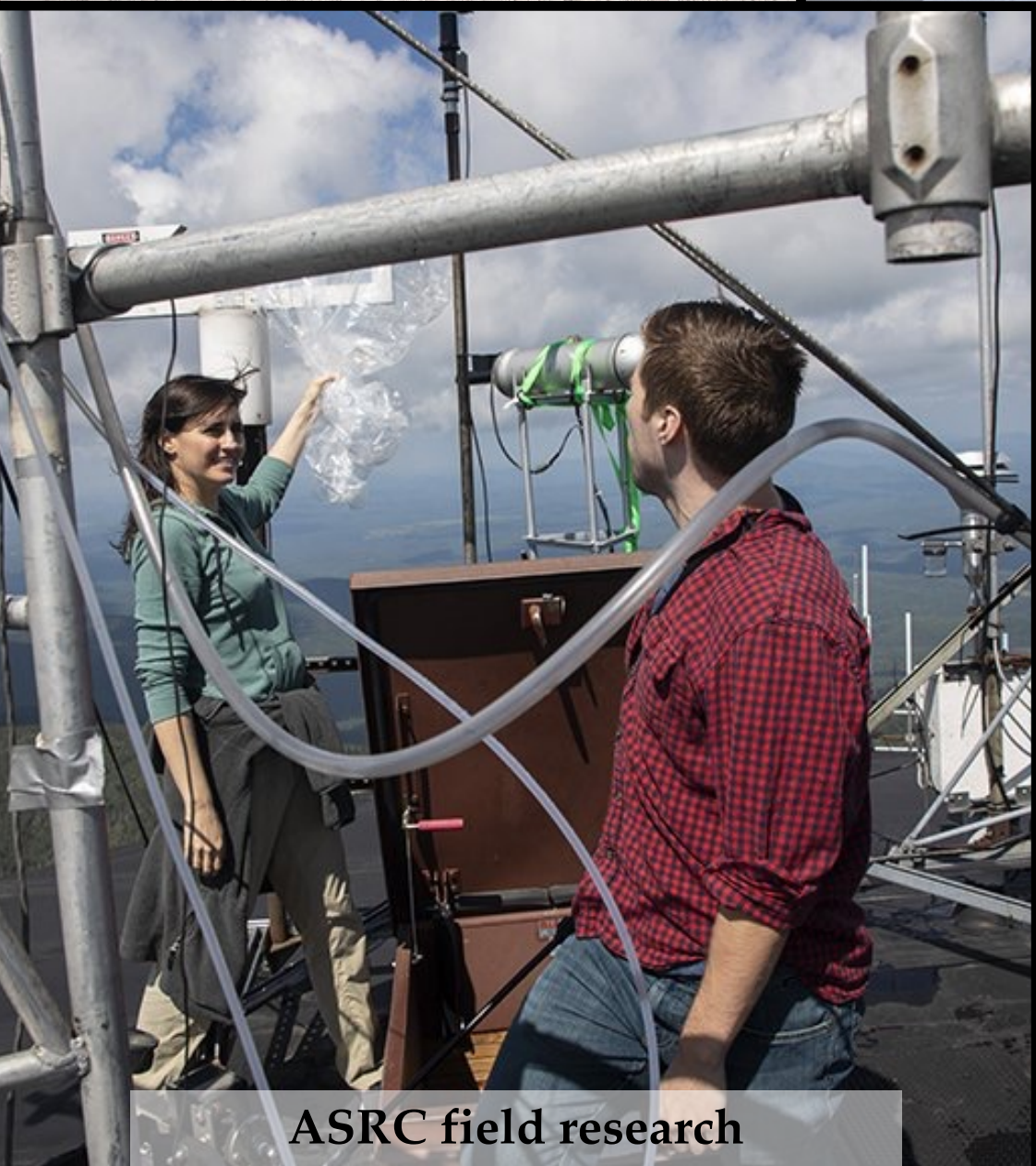
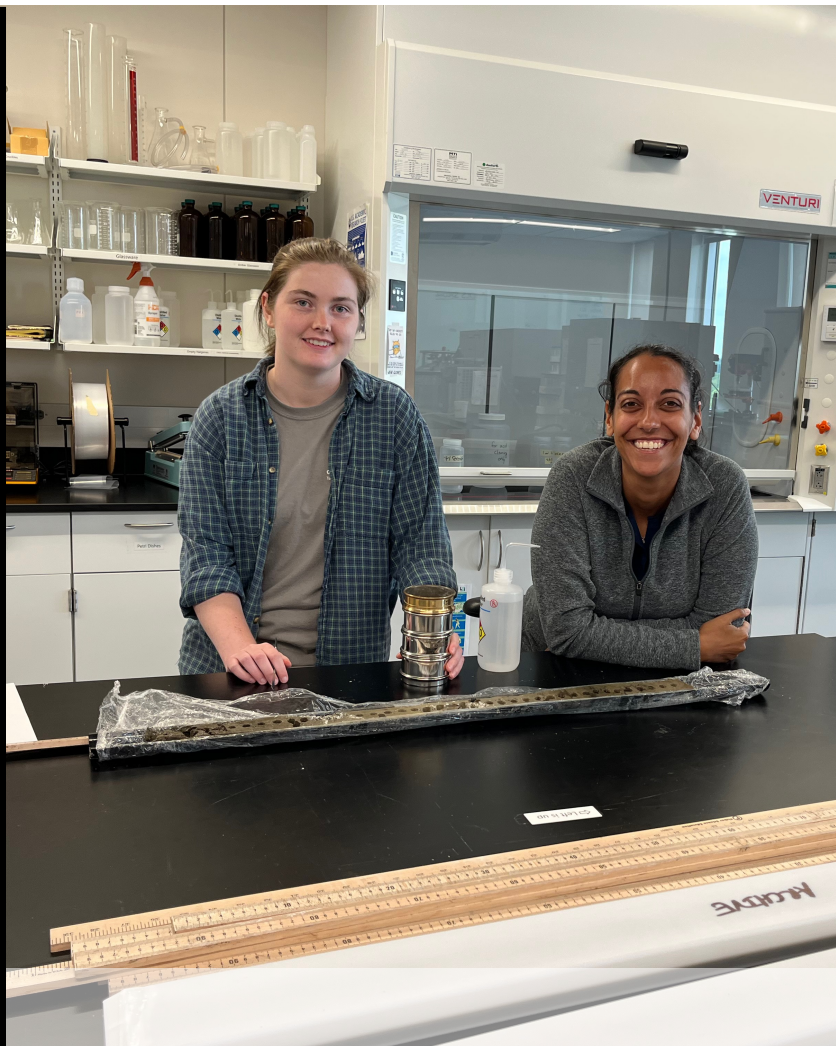
Meteorological Data Analysis and Visualization • Climate Modeling

Seasonal and Subseasonal Forecasting • Tropical Meteorology • Solar and Wind Energy

Mountain Meteorology • Data Assimilation • Hydroclimate



Paleoclimate group lab and field work



ASRC field research



xCITE visualization lab





## Department of Atmospheric and Environmental Sciences

- **External speakers**
  - Weekly seminars
  - Career development discussions
- **Informal seminars**
  - Climate Group
  - Mesonet Forum
  - ASRC Colloquy



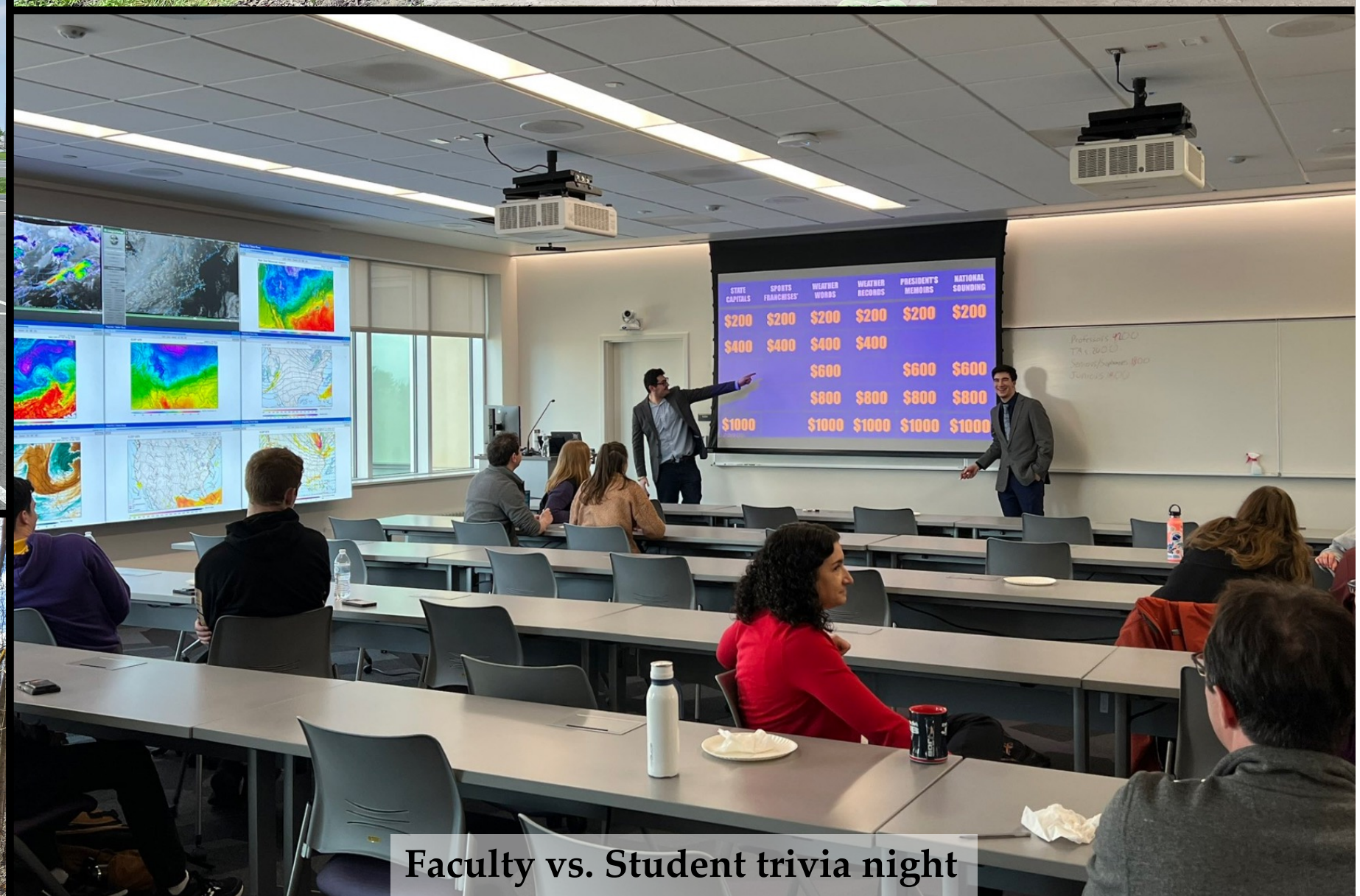
Severe weather field research



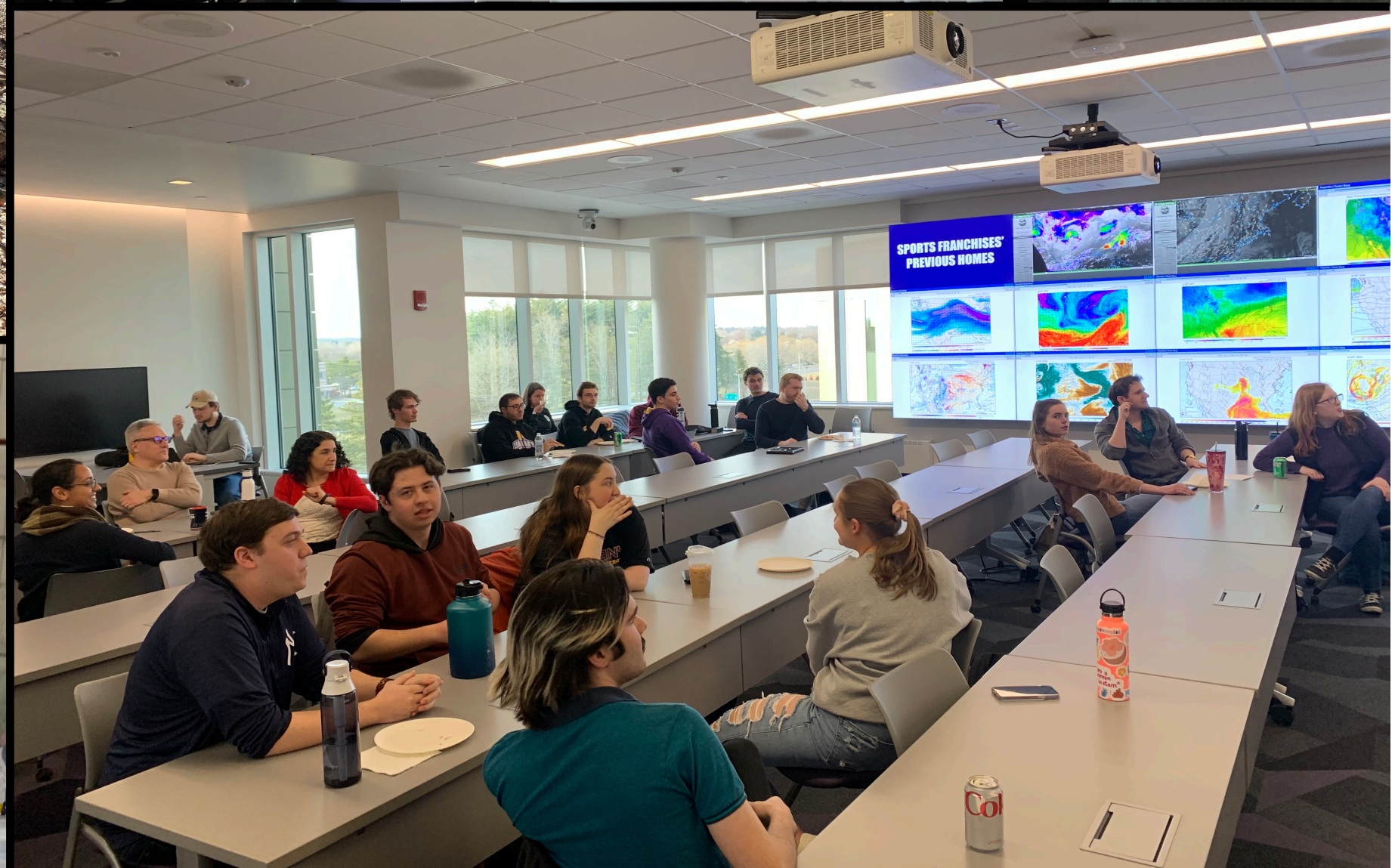
Hike at Thatcher State Park



Outreach in dendrochronology



Faculty vs. Student trivia night



- **Map discussions**
  - ~ Tropical meteorology
  - ~ Weather analysis and forecasting
  - ~ High-impact weather events
- **Leadership and outreach**
  - ~ Graduate Program
  - ~ Inclusion and Diversity Committee
  - ~ Faculty meetings
- ~ Graduate Student Organization
- ~ Public schools, STEM programs



Skating before Prof. Brian Tang's hockey game