

VIVIAN BLEDSOE

Current Position: Lecturer, Atmospheric Science – UAH AES Department

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Motivated to enable student success in the Atmospheric & Earth sciences. Passionate about preparing the next generation of scientists academically and professionally through advising, recruiting, and education.

EDUCATION

MS	University of Alabama in Huntsville, Atmospheric Science	August 2022
BS	University of Alabama in Huntsville, Earth System Science Graduated Magna Cum Laude	May 2019

TEACHING ACTIVITIES

University of Alabama in Huntsville, Huntsville, AL	August 2022 to Present
Lecturer, Atmospheric Science	
Graduate Teaching Assistant, UAH AES Dept.	May 2020 to May 2022
Supervised Student Instructor, UAH AES Dept.	Fall 2021
Florida State University, Tallahassee, FL	Aug 2019 to May 2020
Graduate Teaching Assistant, Earth, Ocean, & Atmospheric Science Dept.	

Courses Taught as Instructor of Record:

AES 104	Weather & Climate Change	Fall, Spring, Summer	2022, 2023, 2024
AES 104L	Weather & Climate Change Laboratory	Fall, Spring, Summer GTA Assisted	2022, 2023, 2024
AES 209	Data Analysis Tools	Fall	2023
AES 212	Severe Weather Analysis	Spring	2023, 2024
AES 212L	Severe Weather Analysis Laboratory	Spring GTA Assisted	2023, 2024

AES 352	Synoptic Meteorology	Spring	2023, 2024
AES 410/510	Operational Weather Forecasting	Fall	2022, 2023, 2024
AES 499	Undergraduate Research	Varies	See Below

Courses Taught as Graduate Teaching Assistant:

MET 1010L	Introductory Meteorology Lab	Florida State University	Spring 2020
AES 103L	Earth & Environmental Science Laboratory	UAH GTA	Fall 2020, Spring 2021
AES 104L	Weather & Climate Change Laboratory	UAH GTA	Fall 2020, Spring 2021
AES 209	Data Analysis Tools	UAH, Supervised Teaching	Fall 2021

AES 499 Research Advisor:

Jillian Ethridge	Spring 2023	Honors Capstone	Co-advisor
	"A New Approach to Ocean Remote Sensing: Utilizing Machine Learning to Derive Ocean Color from Geostationary Satellite Data"		
Shaelyn Deal	Spring 2023		
	"Effects of Different Climatological Areas on Archaeological Remote Sensing"		
Austin Powell	Fall 2023	Honors Capstone	Co-advisor
	"Mesoscale and Synoptic Investigation of the Tennessee March 2-3, 2020 Tornadic Supercell"		
Amy McAlister	Spring 2024	Co-advisor	
	"Understanding and Forecasting Dust Events from Post-Fire Burn Scars: A Case Study on the Nuckolls County, Nebraska Grassfire"		
John Mayhall	Spring 2024	Honors Capstone	Co-advisor
	"Objectively Identifying Transverse Cirrus Bands in Tropical Cyclones using a Convolutional Neural Network"		

SERVICE ACTIVITIES

UAH AES Undergraduate Curriculum Committee, Chair 2023-Present

UAH College of Science Undergraduate Curriculum Committee 2023-Present

UAH AES Department Ambassador Program, Program Director 2022-Present

- Review applications, hold interviews, and select qualified AES students of merit to participate in the AES Ambassadors program
- Coordinate Ambassador meetings to get input from students as to how they would like to engage our department and community
- Train Ambassadors to conduct tours of the department facilities to both prospective students and visitors
- Coordinate Ambassadors to give said tours, as well as participate in recruiting events conducted by the University (such as UAH at a Glance, Scholars Day & Admitted Students Day)

AES Professional & Career Advising, Atmospheric Science Advisor 2022-Present

- Serve as specialty course advisor for atmospheric science concentration students to assist College of Science Academic Advisors
- Hold organized advising appointment slots 2-3 weeks per semester for students to meet to discuss next semester's courses as well as internship and job opportunities
- Assist students in selecting AES elective courses that align with their research and career goals – including those that meet NWS GS-1340 job requirements

UAH American Meteorological Society/National Weather Association Student Chapter, Faculty Sponsor 2023-Present

- Serve as contact for student-organized events such as Rocket City Weather Fest
- Approve student-organized events in UAH facilities through Charger Connect
- Act as mentor and advisor for students when seeking resources and input for club activities
- Served on a faculty discussion panel for Rocket City Weather Fest (RCWF)
- Served as point-of-contact and faculty sponsor/organizer on the day of RCWF

UAH Admissions Prospective Student Visits, AES Contact 2022-Present

- First point of contact for AES Department for Prospective Student Visits from UAH Admissions
- Coordinate and lead specialty AES Department tours of facilities including Earth System Science Center (ESSC) research areas, National Weather Service Huntsville WFO, and Severe Weather Institute Radar & Lightning Laboratories (SWIRLL) building and MapNET research vehicles

Mosaic City College, Faculty Sponsor 2023-Present

- Approve student-organized events in UAH facilities through Charger Connect

RESEARCH ACTIVITIES

Master's Thesis, University of Alabama in Huntsville, Huntsville, AL **2020-2022**

Advisor: Patrick Duran, PhD, NASA SPoRT

Committee: Dr. John Mecikalski (Chair), Dr. Patrick Duran, Dr. Kevin Knupp

- "Observational Analysis of Atlantic Basin Tropical Cyclone Squall Lines and Relationship to the Diurnal Cycle"
 - o Worked with NASA SPoRT to investigate a connection between pre-landfall squall lines and the diurnal cycle in tropical cyclones
 - o Utilizing ground-based radar, surface observations, and HRRR model data for analysis of three Atlantic basin cases
 - o Presented work at two AMS conferences

NOTABLE JOB EXPERIENCE

Tour Coordinator, UAH SWIRLL Facility, Huntsville, AL **FA2024-Present**

- Coordinate tours of UAH Severe Weather Institute - Radar & Lightning Laboratory as part of UAH Earth System Science Center
- Interact with various groups, from local schools to government entities, as well as contacts at UAH
- Schedule, coordinate personnel, and conduct tours both of the facility and to external sites with MapNET vehicle fleet

Program Manager, UAH NSF REU, Huntsville, AL **SU 2022**

Supervisors: Robert Griffin and Ryan Wade, UAH

- Responsibilities:
 - o Manage day-to-day operations of REU program
 - o Mentor students through the research process
 - o Prepare professional development seminars and presentations
 - o Organize outreach tours for students with local research partners
 - o Coordinate final student poster session and deliverables

PRESENTATIONS AND INVITED LECTURES

Conference Oral Presentation, "Observational Analysis of Atlantic Basin Tropical Cyclone Squall Lines and Relationship to the Diurnal Cycle," AMS 35th Conference on Hurricanes and Tropical Meteorology, May 9-13th, 2022, New Orleans, LA

Symposium Poster Presentation, "Pre-Tropical Cyclone Squall Lines and the Connection to the Diurnal Cycle in Hurricane Laura (2020)," Southeast Severe Storms Symposium 2022, April 2-3, 2022, Mississippi State University, Starkville, MS

Conference Poster Presentation, "Pre-Tropical Cyclone Squall Lines and the Connection to the Diurnal Cycle during Hurricane Laura (2020)," AMS Annual Conference 2022, Jan. 24-27, 2022, virtual

COMPUTER SKILLS

Programming: Python Programming Language, GrADS Weather Analysis System/Language, Anaconda Python Software suite

Applications: GR2Analyst, ENVI, ArcGIS Pro/ArcMap, Google Earth, McIDAS-V, AWIPS

Platforms: PC/Windows, Linux

PROFESSIONAL AFFILIATIONS

American Meteorological Society, 2022 – Present

UAH Student Chapter of AMS/NWA, 2020 – 2022, Student Member

UAH Profile Sounding Team for Operational and Research Meteorology (UPSTORM), 2016-2019, Student Member