
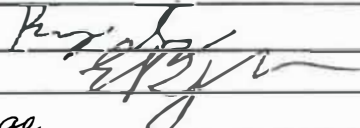
 FLORIDA ATLANTIC UNIVERSITY	NEW COURSE PROPOSAL Undergraduate Programs		UUPC Approval <u>2/26/24</u> UFS Approval _____ SCNS Submittal _____ Confirmed _____ Banner Posted _____ Catalog _____
	Department Geosciences College College of Science <i>(To obtain a course number, contact erudolph@fau.edu)</i>		
Prefix MET Number 3052	<i>(L = Lab Course; C = Combined Lecture/Lab; add if appropriate)</i> Lab Code	Type of Course <div style="border: 1px solid red; padding: 2px;">Lecture</div>	Course Title Atmospheric Hazards
Credits <i>(See Definition of a Credit Hour)</i> 3	Grading <i>(Select One Option)</i> Regular <input checked="" type="radio"/> Sat/UnSat <input type="radio"/>	Course Description <i>(Syllabus must be attached; see Template and Guidelines)</i> This course delivers comprehensive knowledge of atmospheric hazards, emphasizing the physical explanation, historical precedents, and the influence of climate change. Through the analysis of diverse case studies, students will explore a range of atmospheric hazards including tropical cyclones, severe thunderstorms, tornadoes, droughts, heatwaves, wildfires, winter storms, and compound and cascading events where multiple hazards intersect. Special attention will be given to the ways in which climate change is altering the frequency and impact of these hazards.	
Effective Date <i>(TERM & YEAR)</i> Fall 2024	Prerequisites, with minimum grade* MET 2010, D-		Corequisites
		Registration Controls <i>(Major, College, Level)</i>	
*Default minimum passing grade is D-. Prereqs., Coreqs. & Reg. Controls are enforced for all sections of course			
WAC/Gordon Rule Course <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No WAC/Gordon Rule criteria must be indicated in syllabus and approval attached to proposal. See WAC Guidelines .		Intellectual Foundations Program (General Education) Requirement <i>(Select One Option)</i> None General Education criteria must be indicated in the syllabus and approval attached to the proposal. See Intellectual Foundations Guidelines .	
Minimum qualifications to teach course Masters degree (with 18 credit hours of relevant coursework).			
Faculty Contact/Email/Phone Yijie Zhu/yijiezhu@fau.edu/8138929674		List/Attach comments from departments affected by new course	
Approved by Department Chair <u></u> College Curriculum Chair <u></u> College Dean _____ UUPC Chair <u>Korey Sorge</u> Undergraduate Studies Dean <u>Dan Meeroff</u> UFS President _____ Provost _____		Date 1/31/24 2/15/24 <u>2/16/24</u> <u>2/26/24</u> <u>2/26/24</u> _____ _____	

Email this form and syllabus to mjennning@fau.edu seven business days before the UUPC meeting.

MET 3052 – Atmospheric Hazards

Instructor: Yijie Zhu

Email: yijiezhu@fau.edu

Term: Fall 2024

Credit Hours: 3

Time: *Tue, Thurs 9:30am-10:50am*

Location: SE 4xx, Boca Raton

Office Hour: Thursday 3 pm-5 pm

INSTRUCTIONAL METHOD

In-Person

Traditional concept of in-person. Mandatory attendance is at the discretion of the instructor.

COURSE DESCRIPTION

This course delivers comprehensive knowledge of atmospheric hazards, emphasizing the physical explanation, historical precedents, and the influence of climate change. Through the analysis of diverse case studies, students will explore a range of atmospheric hazards including tropical cyclones, severe thunderstorms, tornadoes, droughts, heatwaves, wildfires, winter storms, and compound and cascading events where multiple hazards intersect. Special attention will be given to the ways in which climate change is altering the frequency and impact of these hazards.

COURSE OBJECTIVE

Upon successful completion of this course, students will be able to:

- Understand the physical principles of the Earth's atmosphere that lead to hazardous weather and climate events.
- Identify and differentiate between various types of atmospheric hazards.
- Recognize the consequences of different types of atmospheric hazards, including the direct and indirect impacts on communities and economics.
- Investigate the role of climate change in altering the frequency, intensity, and distribution of atmospheric hazards.

COURSE PREREQUISITES

MET 2010

REQUIRED TEXTS/MATERIALS

No required textbook. The instructor will provide weekly readings on Canvas

COURSE EVALUATION METHOD

<i>Module Quizzes</i>	<i>35%</i>
<i>Midterm Exam</i>	<i>25%</i>
<i>Final Project</i>	<i>40%</i>
<i>Extra Credit</i>	<i>+3%</i>

1. *Module Quizzes*

A total of five module quizzes will be delivered throughout the semester. These module quizzes are designed to help students keep track of the course material.

2. *Midterm Exam*

A closed-book exam will be held during the regular class time. It will be a mix of multiple-choice and short answers.

3. *Final Project*

Students will be working in groups (Max 3 group members) on assessing a historical atmospheric hazard/disaster event (e.g., 2023 Hawaii Firestorm) selecting from a list of cases provided by the instructor.

Grading scheme for the final project.

Components	Weight
<i>Presentation</i>	<i>30%</i>
<i>Project Report</i>	<i>70%</i>

A 10-minute presentation with a 5-minute Q&A will be required for each individual/group to showcase the project. All team members need to show up during the presentation session on **November 19th, and November 21st, 2025**.

A 15-page double-spaced project report is due **December 08th, 2025** via Canvas.

GRADING SCALE

A:	>92%	C	73-76%
A-:	90-92%	C-	70-72%
B+:	87-89%	D+	67-69%
B	83-86%	D	63-66%
B-	80-82%	D-	60-62%
C+	77-79%	F	<60%

LATE ASSIGNMENTS POLICY

Assignments will be deducted 5% for each day that they are late unless arranged in advance and with good reason. Also, note that grades of Incomplete (“I”) are reserved for students who are passing a course but have not completed all the required work because of exceptional circumstances.

ATTENDANCE POLICY STATEMENT

Students are expected to attend all their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-

attendance. Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations, or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances, and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.

DISABILITY POLICY

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at www.fau.edu/sas/.

CLASS COMPUTER USE

During classes, computers should only be used for class-related activities. Use of email, social media, online shopping, internet surfing etc is not allowed. This policy is strictly enforced and the instructor reserves the right to grade penalize students who transgress.

PERSONAL LAPTOP USE

Students may use their own laptops in place of the desktop lab computers, subject to the same limitations regarding note-taking, internet use etc noted above.

CLASSROOM ETIQUETTE POLICY

University policy on the use of electronic devices states: "In order to enhance and maintain a productive atmosphere for education, personal communication devices, such as cellular telephones and pagers, are to be disabled in class sessions."

COUNSELING AND PSYCHOLOGICAL SERVICES (CAPS) CENTER

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to <https://www.fau.edu/counseling/>

HONOR CODE POLICY STATEMENT

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty, including cheating and plagiarism, is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high quality

education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty.

For more information, see University Regulation 4.001 at

<https://www.fau.edu/ctl/documents/4.001-code-of-academic-integrity.pdf>

COURSE SCHEDULE (*subject to revision*)

Class	Topic	Event
Week 1 08/20, 08/22	1. Course Introduction 2. The Troposphere: Composition and Structure	
Week 2 08/27, 08/29	Climate System and Atmospheric Dynamics	Module 1 Quiz Due 08/30@11:59pm
Week 3 09/03, 09/05	Thunderstorms and Tornadoes	
Week 4 09/10, 09/12	Tropical Cyclones	Module 2 Quiz Due 09/13@11:59pm
Week 5 09/17, 09/19	Floods and Droughts	
Week 6 09/24, 09/26	Heatwaves and Winter Storms	Module 3 Quiz Due 09/27@11:59pm
Week 7 10/01, 10/3	Wildfires	
Week 8 10/08, 10/10	1. Mid-Term Review 2. Mid-Term Exam	
Week 9 10/15, 10/17	Compound and Cascading Events	
Week 10 10/22, 10/24	Damage and Societal Impacts	Module 4 Quiz Due 10/25@11:59pm
Week 11 10/29, 10/31	Adaptation and Mitigation	
Week 12 11/05, 11/07	Climate Change and Extreme Events	Module 5 Quiz Due 11/08@11:59pm
Week 13 11/12, 11/14	Historical Events in Florida	
Week 14 11/19, 11/21	Final Project Presentation	
Week 15 11/26, 11/28	No Class (Thanksgiving)	
Week 16 12/03, 12/05	Reserved for Final Project Report Writing	Final Project Report Due 12/08@11:59pm