SCIENTIFIC WRITING
ATMS-464
Fall 2024

Course Description:
The goal of this course is to help you understand how and why scientists communicate, and to develop a process and voice that will help you become a successful communicator. Throughout this course we will cover techniques for successful technical and non-technical writing and presentations. We will dig deeper into literature reviews, research papers, and poster and oral presentations.

Class Meetings: TuTh 8:15–9:30 a.m. in RRO 238
Prerequisites: ATMS-103 and Junior standing
Credit hours: 3

Professor

Dr. Caitlin Crossett

Office: RRO 251
Phone: 828.250.3888
Email: ccrosset@unca.edu

Office Hours: M 2–3 p.m., and TuTh 10–11 a.m. or by appointment: https://calendly.com/ccrosset

GENERAL INFORMATION

Suggested Text: *Eloquent Science: A Practical Guide to Becoming a Better Writer, Speaker, and Atmospheric Scientist*, David M. Schultz. ISBN: 9781878220912

Webpage: The course page on Moodle will provide lecture slides, announcements, assignments, and sources of additional information. Please get in the habit of checking it frequently.

Visit http://www.atms.unca.edu/slos.shtml for a list of the student learning outcomes for the Department of Atmospheric Sciences.

ASSIGNMENTS

You will be creating seven different modes of communication common across the sciences: 1) Literature review, 2) Research paper, 3) Abstract, 4) Technical poster, 5) Technical oral presentation, 6) Non-technical article, 7) Non-technical oral presentation. Your final product in each mode will go into your writing portfolio and be worth the percentages of your total grade outlined below. Each of these products will be scaffolded with inside- and outside-of-class assignments and peer-review. This scaffolding will break each assignment into manageable pieces to help you develop sustainable writing practices.

Attendance/ Participation: Your active participation in class and especially peer review is essential to your success in this course. Participation each day will be assessed on a 0–1 scale where a score of 1 means you came prepared and participated in discussion/ peer review, a score of 0.5 means you did not come prepared, but you participated (or vice versa), and a score of 0 means you were either absent or did not come to class prepared nor participated. Items that you are expected to bring with you to class each day are listed on the course calendar in the "Bring to Class" column.

Assignment	% of Grade
Attendance/ Participation	30%
Literature Review	12%
Research Paper	12%
Abstract	6%
Technical Poster	10%
Technical Presentation	10%
Non-technical Article	10%
Non-technical Presentation	10%

A	92–100	C	72.0–77.9
A-	90.0–91.9	C-	70.0–71.9
B+	88.0–89.9	D+	68.0–69.9
B	82.0–87.9	D	60.0–67.9
B-	80.0–81.9	F	< 60.0
C+	78.0–79.9		

UNIVERSITY WRITING CENTER

I HIGHLY suggest you take full advantage of the staff at the University Writing Center (UWC) to help you with assignments for this class. The UWC, in the library, offers free, one-on-one sessions with student writing consultants—both in-person and online. They work with writing at every stage of the writing process, from brainstorming to polishing, in a judgment-free environment. To make an appointment, visit writingcenter.unca.edu.

COURSE POLICIES

Late Work: I will accept late work for a 10% per day late penalty. LIFE TOKEN: You will be allowed one 48-hour extension on one assignment (except for the technical poster presentation, technical oral presentation, or non-technical oral presentation) for no penalty. You must clear this extension with me no less than 24-hours before the due date.

Academic Honesty: Any act of plagiarism, cheating, or use of unauthorized material or assistance is academic dishonesty. We will spend a significant amount of time in this class discussing how to correctly cite others work to avoid plagiarism. A person who knowingly assists another in cheating is likewise guilty of cheating. It is up to my assessment of the gravity of the offense, that a student may be punished by a failing grade or a grade of zero for the assignment or test, or a failing grade in the course. I expect that you will exercise integrity in all assignments. Please email me or come see me during office hours if you have additional questions or need clarification on any point.

Technology Use: You may use laptops or tablets during class to take notes, but you may not use them for watching TV, doing work for other classes, or anything else not related to course discussion. I reserve the right to change this policy should distractions become an issue. If you have accommodations through the Office of Academic Accessibility (accessibility.unca.edu) for electronics use during class, please come talk to me.

Artificial Intelligence Tools Policy: Using an AI-content generator such as ChatGPT to complete assignments without proper attribution violates academic integrity. By submitting assignments in this class, you pledge to affirm that they are your own work and you attribute use of any tools and

sources (guides to citing AI tools can be found [here](#)). Approved uses of ChatGPT are limited to: Brainstorming ideas, fine tuning research questions, assistance with coding (i.e., finding bugs), and locating supporting information such as journal articles and web pages. If you are unsure if a specific use of ChatGPT is approved, please email, or come talk to me.

Communication: I will primarily contact you about course information through email or Moodle so please get in the habit of checking both every day! Therefore, email is also the best way to reach me with any questions/comments/concerns (ccrosset@unca.edu). I will monitor email from 8a.m.–5p.m. during the work week and intermittently outside of these hours and during the weekend.

Respectful Classroom Environment: I ask that everyone be respectful of other students, the instructor, and any guest presenters while in class. Just as you expect others to actively listen to your diverse set of thoughts and perspectives, I ask that you do the same.

UNIVERSITY RESOURCES

Accessibility: UNC-Asheville values the diversity of our student body as a strength and a critical component of our dynamic community. Students with disabilities or temporary injuries/conditions may require accommodations due to barriers in the structure of facilities, course design, technology used for curricular purposes, or other campus resources. Students who experience a barrier to full access to this class should let the professor know, and/or make an appointment to meet with the Office of Academic Accessibility as soon as possible. To make an appointment, call 828.232.5050 or email academicaccess@unca.edu. Learn more about the process of registering, and the services available through the Office of Academic Accessibility here: accessibility.unca.edu

Mental Health Support: As a student, you may experience a range of challenges that can interfere with learning, such as stressful life events, experiences of anxiety and/or depression, self-harm, substance use, and/or unusual difficulty with ordinary life activities. The increased stress of school can also make existing mental health struggles more difficult to manage. Support is available and treatment can help. Learn more about the confidential mental health services UNC Asheville provides to support student success at https://www.unca.edu/life/health-counseling/. The Health and Counseling Center is located at 118 W.T. Weaver Boulevard. Appointments can be made by calling 828-251-6520. A UNC Asheville counselor on call is available after 5 p.m. and on weekends; the counselor on call can be accessed by calling the UNCA Campus Police dispatcher at 828-251-6710. Additionally available after hours and on weekends, call the Bulldog Health Link at 1-888-267-3675, where you can get immediate support for mental health, medical consultation, concern for a friend, and/or community resources. In case of an emergency, you can also call RHA's Mental Health Mobile Crisis Unit at 1-888-573-1006.

COURSE SCHEDULE (subject to change) – ATMS 464 – Fall 2024

Week	Date	Topic	Reading	*Bring to Class*	Assignment
1	20-Aug	What is Scientific Communication/ How to Read Scientific Lit	Chapter 4		
	22-Aug	Citations/ Literature Reviews	Chapter 12	*One Journal Article from AMS Journal*	
2	27-Aug	Literature Reviews	Chapters 4.7, 6		
	29-Aug	How to Peer Review/ Addressing Peer Review		*Lit Review Matrix with at least five sources*	**Research Question due on Friday (8/30) by 11:59p.m.**
3	3-Sep	Peer Review		*Draft of Lit Review: Outline*	
	5-Sep	Data and Methods	Chapter 4.8	*Dataset you plan to Analyze*	
4	10-Sep	Peer Review		*Draft of Lit Review: Narrative*	
	12-Sep	Effective Figures/ Tables	Chapter 11	*One figure you've created and draft of data & methods*	
5	17-Sep	Results: What we found	Chapter 4.9		**Final Literature Review due at 11:59p.m.**
	19-Sep	Peer Review		*Draft of Results*	
6	24-Sep	Discussion: What it means	Chapters 4.10-4.11		
	26-Sep	Peer Review/ Introductions		*Draft of Discussion*	
7	1-Oct	Introductions	Chapter 4.6		
	3-Oct	Peer Review		*Full Research Paper Draft (including Introduction)*	
8	8-Oct	Fall Break - NO CLASS			
	10-Oct	Abstract Elements	Chapter 23	*Three Conference Abstracts*	**Final Research Paper due on Friday (10/11) at 11:59p.m.**
9	15-Oct	Peer Review		*Abstract Draft*	
	17-Oct	Poster Elements	Chapter 27		**Final Abstract due on Friday (10/18) at 11:59p.m.**
10	22-Oct	Peer Review		*Poster Draft*	
	24-Oct	Technical Presentations	Chapters 24-26		
11	29-Oct	**Student Poster Presentations**			**Final Poster due in Class**
	31-Oct	Peer Review		*Technical Presentation Draft*	
12	5-Nov	Non-technical Writing (Audience, Jargon)	Chapter 30	*Feature Piece from news outlet*	
	7-Nov	Non-technical Writing			
13	12-Nov	**Student Technical Oral Presentations**			**Final Technical Presentation due in Class**
	14-Nov	Peer Review		*Non-technical writing Draft*	
14	19-Nov	UG Research Symposium - NO CLASS			
	21-Nov	Non-technical Presentations	Chapter 30		**Final Newspaper Article/ Feature due on Friday (11/22) by 11:59p.m.**
15	26-Nov	Peer Review		*Non-technical Presentation Draft*	
	28-Nov	Thanksgiving Break - NO CLASS			
16	3-Dec	Work Day			
Thursday	5-Dec	8:00-10:30AM: Non-technical Presentations			