

Senior Research Project
CLIM 408
Spring 2021 Syllabus

Course Coordinators: Cristiana Stan (Atmospheric Sciences) and Stacey Verardo (Earth Sciences)
Instructor for Sections 001 and 002: Paul Dirmeyer pdirmeye@gmu.edu

Course Objectives: This course is designed to offer students the opportunity to explore and research a topic of their choice relevant to their major. A student taking the class will *i)* use critical thinking to formulate a research question, *ii)* make effective use of library, Internet, and other research resources, *iii)* engage in the key elements of conducting original research, *iv)* employ effective writing skills in summarizing past research on the topic, provide a concise, easy to follow description of the specific methods used in the research, and clearly synthesize and visualize the results.

Requirements: In order to successfully complete the course each student is expected to:

1. Attend regularly scheduled meetings with the research faculty advisor
2. Complete each of the assignments that build the research proposal
3. Conduct original research on the selected topic
4. Submit a written research proposal that is a minimum of 10 fully developed paragraphs and reviews a minimum of 5 sources (preferably from peer-reviewed academic journals)
5. Submit the final written report on the project by the week of Final Exam.

Schedule for Spring 2021: Due to ongoing social distancing measures due to the COVID-19 pandemic, CLIM 408 will be entirely online. Since the instructor is supervising more than one student this term, the meeting schedule will be slightly modified: there will be group and individual meetings on alternating weeks:

WEEK	MEETING	TOPIC	DUE
1	Group	Research process, tools and approaches	
2	Indiv.	Topic finalization	
3	Group	Literature review techniques, bibliography	
4	Indiv.		
5	Group	Developing a research proposal	Literature review (≥500)
6	Indiv.		
7	Group	Planning and executing research	Full proposal (≥1000*)
8	Indiv.		
9	Group	Communicating your work	
10	Indiv.		
11	Group	Maintaining perspective in research	Progress report (≥500)
12	Indiv.		
13	Group	Finalizing the written report	
14	Indiv.		
15			Final report (≥2500*)

Writing assignments are listed under the column “DUE” – numbers in parentheses are expected minimum word counts for each assignment. A single-spaced page using 12-point Times New Roman font in MS Word has about 500 words. *Note that the Full Proposal and Final Report include the Literature Review in their word counts. The Final Report will also include figures and/or tables (although they say “a picture is worth a thousand words”, alas, we cannot count figures in that way).

Policies and Grading: All students at George Mason are required to take a writing intensive (WI) course in their major as part of the Mason Core. [The Mason Core](#), our general education curriculum, is a critical component of a student’s curriculum. CLIM 408 is the writing intensive course for the BS in Atmospheric Sciences and BS in Earth Sciences. This means that you must write at least 3500 words in your assignments for this course.

Students are also responsible for being sure they are properly enrolled in the course. If a student drops the course, he or she must see to the paperwork him or herself. Instructors will not "automatically" drop a student who merely stops coming to class.

The [standard undergraduate grading scale](#) is used.

Office Hours: There are no fixed office hours – extra meetings can be requested by contacting the instructor by email.

Students with Disabilities: *If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Services (ODS) at 993-2474, <http://ods.gmu.edu>. All academic accommodations must be arranged through the ODS.*

GMU Email: All George Mason students are issued an e-mail account. *Students must use their MasonLive email account to receive important University information, including messages related to this class. See <http://masonlive.gmu.edu> for more information.*

Honor Code: *Mason is an Honor Code university; please see the Office for Academic Integrity for a full description of the code and the honor committee process. The Biology Department strongly enforces the GMU Honor Code. Students are expected to read and adhere to the George Mason University Honor Code. **Ignorance of the Honor Code is no excuse for infractions thereof.** The principle of academic integrity is taken very seriously, and violations are treated gravely. What does academic integrity mean in this course? Essentially this: when you are responsible for a task, you will perform that task. When you rely on someone else’s work in an aspect of the performance of that task, you will give full credit in the proper, accepted form. Another aspect of academic integrity is the free play of ideas. Vigorous discussion and debate are encouraged in this course, with the firm expectation that all aspects of the class will be conducted with civility and respect for differing ideas, perspectives, and traditions. When in doubt (of any kind), please ask for guidance and clarification.*

Online Behavior: Circumstances currently dictate that much instruction at GMU is being conducted online. Please familiarize yourself with [the core rules of "Netiquette"](#); students must carefully craft their communication in the online classroom to avoid misinterpretation.

Mason Diversity Statement:

George Mason University promotes a living and learning environment for outstanding growth and productivity among its students, faculty and staff. Through its curriculum, programs, policies, procedures, services and resources, Mason strives to maintain a quality environment for work, study and personal growth.

An emphasis upon diversity and inclusion throughout the campus community is essential to achieve these goals. Diversity is broadly defined to include such characteristics as, but not limited to, race, ethnicity, gender, religion, age, disability, and sexual orientation. Diversity also entails different viewpoints, philosophies, and perspectives. Attention to these aspects of diversity will help promote a culture of inclusion and belonging, and an environment where diverse opinions, backgrounds and practices have the opportunity to be voiced, heard and respected.

The reflection of Mason's commitment to diversity and inclusion goes beyond policies and procedures to focus on behavior at the individual, group and organizational level. The implementation of this commitment to diversity and inclusion is found in all settings, including individual work units and groups, student organizations and groups, and classroom settings; it is also found with the delivery of services and activities, including, but not limited to, curriculum, teaching, events, advising, research, service, and community outreach.

Acknowledging that the attainment of diversity and inclusion are dynamic and continuous processes, and that the larger societal setting has an evolving socio-cultural understanding of diversity and inclusion, Mason seeks to continuously improve its environment. To this end, the University promotes continuous monitoring and self-assessment regarding diversity. The aim is to incorporate diversity and inclusion within the philosophies and actions of the individual, group and organization, and to make improvements as needed.

Student privacy: Student privacy and rights are described under the Family Educational Rights and Privacy Act (FERPA; see: <https://registrar.gmu.edu/ferpa/>).

Where to Get Help:

If you encounter any difficulties in this course, first contact your research advisor **immediately!** Do not wait until the end of the semester to ask for help in understanding the material in order to improve your grade - by then, it may be too late. Do not be afraid to ask for help - that is our job!

The [Counseling Center](#) is committed to improving academic and personal skills and offers many workshops and counseling groups throughout the semester.

Make use of the many rich academic and personal opportunities available at Mason!