# Syllabus

## Overview

**Teaching:** min
**Exercises:** min

**Questions**

- How will this class work?

**Objectives**

- To define how this online class will operate and make sure that all learners know how to access and operate the required technology

# CLIM 670 Earth System Modeling

## Instructor

Prof. Cristiana Stan

Dept. Atmospheric, Oceanic and Earth Sciences

Email: cstan at gmu dot edu

## Meeting Days/Times

Monday @ 10:30-13:10, 139 Innovation Hall

The class period is divided into two parts: 10:30 to 11:40 and Noon to 1:10. Each part will start promptly.

## Prerequisites

- Computer programming course or experience in any language

## Materials

- Your computer (a tablet will not be sufficient)
- Access to Blackboard. Need help with Blackboard?
- GMU Computer Account [we will take care of this together during the first week of class]. You can also visit the Office of Research Computing (ORC) website and click on "ORC Account Request Form".
- NCAR Computer Account [we will take care of this together during the first week of class]
- There is no required book for this course.

## Best ways to contact me

1. *Blackboard Discussion Forum*: For general questions, problems, etc. addressed to the other students as well as instructors.
2. *Email*: For questions directed only to the instructor. I typically respond to emails within 24hrs during the work week and on Mon morning for emails that arrive over the weekend. If you have not heard a response by this time, then I may not have received your email, so please re-send.
3. *Office Hours*: Please email me if you wish to meet individually and we will schedule a time to meet in person or via Blackboard Collaborate Ultra.

## Class Attendance

This is a face-to-face course. It is in your best interest to attend class during the scheduled class time - please don't be late.

*Live Coding*: One of the reasons you should attend class in person is that this class will utilize a methodology called "Live Coding". This means you will follow along with me while I share and write code on the screen and explain the code as I go. There will be no powerpoint presentations. This method is shown to be effective because it slows down the pace so everyone can keep up, forces me to take the time to explain what I am doing, helps you get accustomed to running codes yourself on your computer setup, and lets you see me make mistakes and how to correct them.

### *If you miss class*

I understand, however that there can be various reasons for missing class and that connectivity issues do occur. If you miss class for whatever reason, all the information will be available to you on the course Blackboard site, including:

- Class materials, including hands-on activities, which are publicly available via Github (link will be provided in Blackboard).
- All assignments will be posted to Blackboard.

### *Presentations*

In some class periods, you may be assigned to give a short presentation. These presentations will be part of your grade and you are expected to be in class at the designated class time for your presentation. You must notify me before the end of the class period you are scheduled to present if there is a connectivity issue that prevented you from presenting that day.

### *Duplication with CLIM680*

There is some duplication in the beginning of this course with CLIM 680 to make sure that all students are comfortable with required Unix and programming skills. These knowledge and skills vary widely among students, are critical, and are not typically directly taught, thus the need for duplication. The class periods that are duplicate are indicated in the course schedule. Students who are in CLIM 680 may skip any duplicate lessons, but are encouraged to attend as helpers to assist other students with this material. Helping others will help you to cement your knowledge.

## Continuity Plans

Given the current times, there are constant changes and new guidance regarding University operations. There is also the possibility that a student, instructor, or family member that they care for may become ill and alternate arragements will need to be made.

We will follow all University guidance. Please monitor your Mason email for the latest guidance. Typically I learn official University guidance at the same time as you. I will promptly follow up with you via email and MS Teams about how any new guidance impacts this class.

In the event that you as a student are unable to continue with the course, please notify me immediately so that we can discuss your options. In the event that I as the Instructor am unable to continue teaching this course, it will continue as planned with a backup instructor.

## How will you be graded?

Your grade will consist of 50% *homework assignments* and 50% your *final project* and calculated as follows:

- Homework Assignments: 50%
- Final Project: 50% (25% written paper; 25% presentation)

### *Assignments*

There will be 4 graded assignments throughout the course that require you to perform and/or analyze model experiments.
Assignments will be submitted to Blackboard unless otherwise specified. Assignments will be graded as satisfactory (A), not satisfactory (C), or not/minimally attempted (F) promptly after the due date. Feedback will be provided via Blackboard.

If the assignment is graded not satisfactory or not attempted, you may redo the assignment until it is satisfactory until the last day of class (Dec 1). You must notify me if you wish me to re-grade a re-submitted assignment. It is your responsibility to complete all assignments by the last day of class.

### *Final Project*

You are also expected to complete a project with a written paper and give a presentation in class of your project. Project details will be provided in class and posted on Blackboard.

### *Exams*

This class has no exams.

## University Policies

### *Academic integrity*

It is expected that students adhere to the George Mason University Honor Code as it relates to integrity regarding coursework and grades. The Honor Code reads as follows: To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University community and with the desire for greater academic and personal achievement, we, the student members of the University Community have set forth this: Student members of the George Mason University community pledge **not** to cheat, plagiarize, steal and/or lie in matters related to academic work. More information about the Honor Code, including definitions of cheating, lying, and plagiarism, can be found at the Office of Academic Integrity website at (http://oai.gmu.edu). In this class, working together is strongly encouraged and doing so is not a violation of the Honor Code. Each student must complete their own model runs, their own analysis codes and figures, and their own writeup of the assignment.

### *Disability accomodations*

Disability Services at George Mason University is committed to providing equitable access to learning opportunities for all students by upholding the laws that ensure equal treatment of people with disabilities. If you are seeking accommodations for this class, please first visit Disability Services for detailed information about the Disability Services registration process. Then please discuss your approved accommodations with me. Disability Services is located in Student Union Building I (SUB I), Suite 2500. Email: ods@gmu.edu | Phone: (703) 993-2474

### *Sexual Harassment, Sexual Misconduct, and Interpersonal Violence*

As a faculty member and designated *Responsible Employee*, I am required to report all disclosures of sexual assault, interpersonal violence, and stalking to Mason's Title IX Coordinator per university policy 1412. If you wish to speak with someone confidentially, please contact the Student Support and Advocacy Center (703-380-1434) or Counseling and Psychological Services (703-993-2380). You may also seek assistance from Mason's Title IX Coordinator (703-993-8730; titleix@gmu.edu).

### *Diversity and Inclusion*

Diversity and inclusion mean much more than *do not harrass*. They mean creating an environment where diverse viewpoints and perpsectives are welcome and everyone feels they are part of the team. This class aims to be an intentionally inclusive community that promotes and maintains an equitable and just work and learning environment. We welcome and value individuals and their differences including race, economic status, gender expression and identity, sex, sexual orientation, ethnicity, national origin, first language, religion, age, and disability.

Mason Non-Discrimination Policy

Mason Diversity Statement

The following kinds of behaviors are encouraged to foster an inclusive environment:

- Use welcoming and inclusive language
- Be respectful of different viewpoints and experiences
- Gracefully accept constructive criticism
- Focus on what is best for the community
- Show courtesy and respect towards other community members
- Be Kind

### *Netiquitte*

An important component of inclusivity is to be aware of how our communication impacts others. Electronic communications require additional care to avoid misinterpretation. The following behaviors are encouraged for online communications:

- Avoid vague words, jargons, and sarcasm.
- Limit or eliminate the use of exclamation points, bolding, capital letters, and emoticons.
- Change subject lines of email chains regularly.
- Plan carefully who to CC on messages.
- Edit meticulously.

### *Religious Holidays*

It your responsibility to notify me within the first two weeks of the semester of any religious holidays in which you will be absent or unavailable due to religious observances.

### *Privacy*

Student privacy is governed by the Family Educational Rights and Privacy Act (FERPA) and is an essential aspect of any course. Students must use their MasonLive email account to receive important University information, including communications related to this class. I will not respond to messages sent from or send messages to a non-Mason email address. As a reminder this class will be recorded.

## *Student Support Services*

A complete list of student support services

Keep Learning, Learning Services

University Libraries

Writing Center

Counseling and Psychological Services

## Course Feedback

Feedback will be regularly requested at the end of each class period and provide information to adapt the course throughout the semester for this specific class. Additionally, a post course survey will provided to get your overall feedback on the course separate from standard course evaluations which do not provide sufficient useful information for improving the course. Please help to develop this course by providing feedback so that the course can improve and adapt.

## Key Points

- Experience with a programming language is required for this class
- This class meets in person
- This class will request feedback often