# Syllabus

## Overview

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

**Questions**

- How will this class work?

**Objectives**

- To define how this 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, 316 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 Canvas. Need help with Canvas?
- 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. Course materials are available on GitHub. https://cristianastan2.github.io/AOES-CLIM670-Earth-System-Modeling

## Best ways to contact me

1. *Canvas 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 Canvas Zoom.

## 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 trying to attent remotely. If you miss class for whatever reason, all the information will be available to you on the course Canvas site, including:

- Class materials, including hands-on activities, which are publicly available via Github https://cristianastan2.github.io/AOES-CLIM670-Earth-System-Modeling.
- All assignments will be posted to Canvas.

### *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 an 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.

## 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 5 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 Canvas.

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 (May 5). 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*

Common Policies Addendum Policies about Academic Standards, Accommodations for Students with Disabilities, FERPA, and Title IX affecting all GMU Students:

https://stearnscenter.gmu.edu/home/gmu-common-course-policies

Students must use their Mason email account to receive important University information, including messages related to this class. See https://mail.gmu.edu for more information. I will not respond to messages sent from or send messages to a non-Mason email address.

### *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.

### *Course Materials and Privacy*

Student privacy is governed by the Family Educational Rights and Privacy Act (FERPA) and is an essential aspect of any course. All course materials posted to Canvas or other course site are private to this class; by federal law, any materials that identify specific students (via their name, voice, or image) must not be shared with anyone not enrolled in this class.

- Videorecordings – whether made by instructors or students – of class meetings that include audio, visual, or textual information from other students are private and must not be shared outside the class
- Live video conference meetings that include audio, textual, or visual information from other students must be viewed privately and not shared with others in your household or recorded and shared outside the class

### *Other Resources for the General University Experience*

- Student Support and Advocacy Center (SSAC)
- Counseling and Psychological Services
- The Office of Diversity, Inclusion, and Multicultural Education (ODIME)
- University Career Services
- University Writing Center

## *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