ESCI 4214 – Climatology **Course Syllabus**
Tue/Thu, 1-2:25 p.m., JN 222 **Fall 2021**

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Office Hours
9-10 a.m. Mon & Wed
and by appointment

I encourage you to talk to me individually whenever you need to discuss your progress in the course or whenever you have a topic of special interest you want to discuss individually.

COURSE WEBSITE

elearn.memphis.edu (eCourseware)

COURSE TEXTBOOK

Climatology, 4th Edition, by Rohli and Vega

ABOUT THE COURSE

The first two parts of the course cover climatological processes, statistical and applied climatology, and the classification of climates around the world. The last part of the course covers climate modeling, climates of the past, climate variability and change, and projected changes in the future. Prerequisites: ESCI 1010 (Weather and Climate) and MATH 1710 (College Algebra).

GRADES

Your grade at the end of the semester is completely determined from the total number of points earned. These points come from 1) two exams and 2) six exercises. Final grades will be determined from a total of 320 points:

Grade	Points Needed	Average Percentage
A	288	90%
B	256	80%
C	224	70%
D	192	60%

Exams:

Two exams are scheduled for this course—a mid-term and a final. Each exam is worth 100 points and will take the format of fill-in-the-blank and discussion questions. While each chapter can build on previous chapters, exams only cover the new material presented. In other words, material on the mid-term exam will not show up on the final exam.

Exams can be made up, but you must have a legitimate, verifiable, and an unavoidable reason. If you know you are going to be absent, then please make arrangements for a makeup before the exam. If you miss an exam because of an unforeseen emergency, arrangements to make it up must be made as

soon as you return to campus. Please note that while makeup exams will be in the same format and cover the same material, they may not ask the same questions. The last day to makeup an exam is Study Day, 2 December 2021.

Exercises:

There will be six exercises worth 20 points each, and are due at the beginning of class on the date listed. You may work on these exercises in groups if you wish, but each student must turn in their own set of answers.

It is better to hand in exercises late than not at all. Any exercises turned in late, however, are subject to a grade penalty. The later an exercise is, the more stiff the penalty. For each class period that an exercise is late, 10% of the maximum points will be subtracted. Please note, the last day to turn in late exercises is Study Day, 2 December 2021.

Attendance:

I will not call roll. I am assuming that you can make your own decisions about class attendance and how it might influence your performance. However, it is in your own best interest to attend class for a couple of reasons. First, this is a 4000/6000-level course and class lectures will likely go beyond the textbook at times to include new material from the peer-reviewed literature, especially later in the semester. Second, I will memorize your names and faces and will know who comes to class regularly. I may use such information to give the benefit of doubt to borderline grade situations. My experience has shown students who miss a number of days, do not perform as well on exams as they could have had they attended class.

COVID-19 and Late Work:

Do not worry about coming to class if you are sick or think you may have been exposed to COVID-19. Make-up work is allowed, and penalties will be relaxed in these cases.

STUDENT CONDUCT

COVID-19 and Masks:

Please know that masks are required to be worn correctly in class this semester per the University COVID-19 Health and Safety Policy (GE2040), and this policy will be enforced. You can view the policy at https://www.memphis.edu/coronavirusupdates/pdfs/covidpolicy.pdf. Violation of this policy will result in you being dismissed from class. If you have issues with this, you can direct those to the Dean of Students Office. Contact information for the Dean of Students Office as well as important resources for you and your family are located on the University's Coronavirus Update website at https://www.memphis.edu/coronavirusupdates/audiences/students.php.

Academic Dishonesty:

Cheating, plagiarism, or any other form of academic dishonesty will not be tolerated. Cases of academic dishonesty will be dealt with in accordance with the policies set forth in the University's Code of Student Rights and Responsibilities available at www.memphis.edu/osa/pdfs/csrr.pdf. It is your responsibility to understand these policies. A lack of understanding is not an adequate defense against a charge of academic dishonesty.

Cell Phones, Laptops, Tablets:

The use of cell phones, laptops, or tablet computers for purposes other than note taking is not allowed during class. Flagrant violation of this policy will result in you being dismissed from class.

STUDENTS WITH DISABILITIES

Any student who may need class or test accommodation based on the impact of a disability will need to contact Student Disability Services (SDS) at 110 Wilder Tower, 901-678-2880, www.memphis.edu/drs/. SDS coordinates accommodations for students with documented disabilities. A registration form is available on their website.

COURSE SCHEDULE

Note: There is always a chance that this schedule could change. Any changes will be announced in class and updated in this syllabus on the course website.

Date	Topic	Chapter
24 August	Introduction to Climatology	1
26 August	Atmospheric Structure	2
31 August	Climate System Controls	3
2 September	Climate System Controls	3
7 September	Atmosphere and the Earth System	4
9 September	Atmosphere and the Earth System	4
14 September	Energy, Matter, and Momentum Exchanges	5
16 September	Energy, Matter, and Momentum Exchanges	5
21 September	Hydrologic Cycle and Surface Water Balance	6
23 September	Hydrologic Cycle and Surface Water Balance	6
28 September	Atmospheric Circulation	7
30 September	Atmospheric Circulation	7
5 October	***Mid-Term Exam***	
7 October	Introduction to Statistical Climatology	Lecture
12 October	No Class – Fall Break	
14 October	Applied Climatology	14
19 October	Climate Classification	8
21 October	Climate Classification	8
26 October	Extratropical Northern Hemisphere Climates	9
28 October	Extratropical Northern Hemisphere Climates	9
2 November	Tropical and Southern Hemisphere Climates	10
4 November	Tropical and Southern Hemisphere Climates	10
9 November	Paleoclimatology	Lecture + 11
11 November	Paleoclimatology	Lecture + 11
16 November	Anthropogenic Climate Change	Lecture + 12
18 November	Anthropogenic Climate Change	Lecture + 12
23 November	Climate Modeling	Lecture + 13
25 November	No Class – Thanksgiving Break	
30 November	Climate Modeling	Lecture + 13
9 December (10:30 a.m.-12:30 p.m.)	***Final Exam***	

***Note: 2 December 2021 is the last day to turn in late assignments and makeup missed exams**