

Course Code & No. - Section: ESCI 201 - Section 1
Course Title (Credits): Meteorology (1)
Term & Year: Fall 2015
Course Ref. No. (CRN): 80360

Instructor: Dr. Andy Rost
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Office: 2nd floor TCES – SNC Faculty Area
Office Hours: MW 9:30-11:15, T 9:30-2:30 and by appointment

Class Meeting Time: M:W 11:30-12:45
Location: TCES 205

Corequisites (from Catalog):
Prerequisite ENVS 200/205

Course Description

Earth Sciences 201, Meteorology, will introduce students to the physical characteristics of the atmosphere. The course will focus on the fundamental theories of weather observation and forecasting. Additional topics include the study of precipitation processes, weather observation, forecasting, role of ocean currents, air masses and fronts, world climates and local field studies.

Student Outcomes (from the Course Approval Form)

Upon successful completion of this course, a student will be able to: (for example)

1. Quantitatively understand basic atmospheric sciences
2. Develop computation skills related to data analysis and instrumentation
3. Field experience related to atmospheric science
4. Understand basic weather forecasting maps
5. Develop basic weather forecasting skills

Methods of Assessing Student Outcomes

Student outcomes will be assessed using the following:

1. Homework Assignments
2. Closed-book examinations
3. Class Projects
4. On line quizzes
5. Written assignments related to readings

Instructional Strategies

This class will utilize lectures, movies, field work, small groups, and individual work in class using laptop computers, inquiry learning, case studies, homework assignments, and a class project. The course makes use of the *Moodle* course management system.

Required Texts and Materials

1. *The Atmosphere; An Introduction to Meteorology*, Lutgens, Tarbuck and Tasa, 13ed. Pearson. ISBN: 978-0-321-98462-3
2. Laptop computer (one that meets the published SNC Laptop Requirements) with MS excel

Prim Library Resources

Using the library's resources effectively (not just Internet resources) contributes to developing each of SNC's core themes by exposing students to high quality academic resources, diverse opinions, new ideas, and a future that includes building on a liberal arts education. In this course, you will be expected to utilize the library's resources (either on-site or remotely) as you complete your assignments.

Prim Library Resources for ESCI 201; Meteorology includes but is not limited to:

1. Electronic databases (for peer-reviewed research articles, reviews, newspaper and magazine articles): Electronic databases most likely to include articles related to your term paper topics are EBSCO: Academic Search Premier, Environment Complete, General Science Collection, GreenFILE, Health Source, Newspaper Source, and TOPICsearch; BioOne; and GREENR.
2. Hardcopy periodicals: Prim Library has current subscriptions for Science, New Scientist, Science News, and National Geographic Magazine. Any of these are likely to have articles on your term paper topic. Full-text articles from many more periodicals are available through the electronic databases.
3. Lib Guides: <http://Libguides.sierranevada.edu> These web pages contain instructions about how to use resources available at Prim Library, how to evaluate the appropriateness of information from the Internet for a research paper, how to cite sources, and other topics related to finding and using information.

Attendance and Class Participation

Due to the small size and dynamic nature of the class, students are required to attend every class and be active participants. Students are required to be in class promptly and ready to learn and participate at the scheduled meeting time. Tardiness will not be tolerated.

Cell phone use during the class will not be tolerated unless the instructor has asked students to use phones for a specific task.

Moodle

The SNC online course management system, Moodle, will be used to organize the course work throughout the semester. Students will register for the ESCI 201, Meteorology course site and log on to course Moodle site for assignments, updates, quizzes, and a range of other information.

On line Quizzes

Students will take a weekly, short on line quizzes on the course Moodle site.

Class Requirements

Assignments are due at the beginning of class, no exceptions. Students are required to bring a hard copy of assignments to class, emailed copies are not acceptable. A letter grade will be deducted for each day the assignment is late. Students are required to bring laptops to class, however laptops and phone are to remain off unless otherwise noted. Please dress appropriately and be prepared to spend some time outside. Students may be asked to offer cars for car-pooling; gas expenses will be compensated.

Projects

Throughout the semester, students will be involved with multiple projects ranging in difficulty. Projects are typically done in groups. Details of all projects will be discussed later in the course.

Exams

Exams will be given during the semester, with details to come later in the semester.

Grading Policy

Grades will include in class and homework assignments, projects, presentations and exams to give the students multiple opportunities to succeed.

Sanctions for Cheating and/or Plagiarism

The Honor Code

The faculty of SNC believes students must be held to high standards of integrity in all aspects of college life in order to promote the educational mission of the College and to encourage respect for the rights of others. Each student brings to the SNC community unique skills, talents, values and experiences which, when expressed within the community, contribute to the quality of the educational environment and the growth and development of the individual. Students share with members of the faculty, administration and staff the responsibility for creating and maintaining an environment conducive to learning and personal development, where actions are guided by mutual respect, integrity, responsibility and trust. The faculty and students alike must make diligent efforts to ensure high standards are upheld by their colleagues and peers as well as themselves. Therefore faculty and students accept responsibility for maintaining these standards at Sierra Nevada College and are obligated to comply with its regulations and procedures, which they are expected to read and understand. If writing is turned in by you, without citation or shared credit, it means you wrote it. Any shared work should be credited, paragraph by paragraph.

Consequences of Violating the Student Honor Code

SNC students and faculty share the responsibility for maintaining an environment of academic honesty. Thus, all are responsible for knowing and abiding by the SNC Faculty/Student Honor Code published in the current SNC Catalog. Faculty are responsible for presenting the Honor Code and the consequences of violating it to students at the start of their classes AND for reporting all incidences of academic dishonesty to the Provost. Students are responsible for knowing what constitutes CHEATING, PLAGIARISM and FABRICATION and for refraining from these and other forms of academic dishonesty. Violations of the Honor Code become part of a student's academic record.

- 1st Offense: Student receives a zero for assignment/exam and counseling with faculty on the honor code, consequences for violating the honor code, and the value of academic honesty in learning.
- 2nd Offense: Student fails course and receives counseling with faculty on the honor code, consequences for violating the honor code, and the value of academic honesty in learning.
- 3rd Offense: Student is expelled.

Moodle Course Site: <http://moodle.sierranevada.edu/moodle/>

ADA Accommodations

In accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973, students with a documented disability are eligible for support services and accommodations. If a student wishes to request an accommodation, please contact the Director of Academic Support Services, Henry Conover, at (775) 831-1314 x7534, hconover@sierranevada.edu or go to the OASIS offices on the third floor of Prim Library within the first week of the semester.

The SNC Email System

The SNC email system is the official communication vehicle among students, faculty members and administrative staff and is designed to protect the confidentiality of student information as required by the Family Educational Rights and Privacy Act of 1974 Act (FERPA). Students should check their college email accounts daily during the school year.

Students have a right to forward their SNC e-mail to another e-mail account (for example, @hotmail or @gmail). However, confidentiality of student information protected by FERPA cannot be guaranteed for SNC e-mail forwarded to an outside vendor. Having email redirected does not absolve a student from the responsibilities associated with official communication sent to his or her SNC email account.

CLASS SCHEDULE FALL 2015*

WEEK	DAY	DATE	TOPICS	Chapters in Text
1	M	8/17	Class introductions	
	W	8/19	Introduction to Atmospheric Sciences	1
2	M	8/24	Heating the Earth; Understanding Earth's Energy Budget	2
	W	8/26		
3	M	8/31	Understanding Temperature	3
	W	9/2		
4	M	9/7	No class – Labor day	
	W	9/9	Moisture in the Atmosphere	4
5	M	9/14	Water, Condensation, Precipitation	4+5
	W	9/16		
6	M	9/21	Understanding Air Pressure	6
	W	9/23		
7	M	9/28	Atmospheric Circulation	7
	W	9/30		
8	M	10/5	Mid-Terms	
	W	10/7	Air Masses	8
9	M	10/12	Ocean Currents	
	W	10/14		
10	M	10/19	Cyclones	9
	W	10/21	Thunderstorms	10
11	M	10/26	Hurricanes	11
	W	10/28		
12	M	11/2	Weather Forecasting	12
	W	11/4		
13	M	11/9	No Class – Veterans Day	
	W	11/11		
14	M	11/16	Air Pollution	13
	W	11/18	Climate Change	14
	M	11/23	Thanksgiving Break	
	W	11/25		
15	M	11/31	Final Projects	
	W	12/2		
Exam	T	12/8	Final Exam	

*Subject to change