

AGLY 201: Integrated Earth Science (4 credits) --- Tentative Syllabus, Spring 2001  
Instructor: Karin L. Willoughby, Office #207, Science Building.  
Office Hours: Mon., Wed. & Fri. 12 - 1 pm; Tue. 12:30 - 1:30 pm; and by appointment.  
Time: Lecture: 9:00 - 9:50 am, Monday, Wednesday and Friday.  
Laboratory: Sec. 1: 2:00 - 4:50 pm, Wed.; Sec. 2: 1:40 - 4:30 pm, Tue.  
Text: The Blue Planet: An Introduction to Earth System Science by Skinner *et al* and  
Applications and Investigations in Earth Science by Tarbuck *et al*.

This course explores a holistic view of the earth. The atmosphere, lithosphere (solid earth), hydrosphere (oceans, surface fresh water and groundwater) and the solar system will be studied as specialized systems with identifiable internal compositions, mechanisms and behavior patterns. The interactions between these systems and with the biosphere are also investigated. Examples of such interactions include tides, weather, climate, global change, plate tectonics and energy resources.

Students are expected to acquire knowledge about what these systems are, how they work and how they interact; build individual ability to understand the implications of earth systems' effects on the future of earth and human beings; and practice communicating that knowledge and understanding to others in written and oral form.

Grading: Lecture -- 75% of class grade

Maximum possible points:

300 pts. (150 pts. each) on 2 exams
120 pts. Sum of 6 homework assignments
130 pts. Semester project
30 pts. Oral presentation
10 pts. Attendance lecture on Remote Sensing of Space Weather, Jan.
19 @ 1pm, attendance at a CSRA meeting (last Tuesday of the
month @ 7pm) or substitute 2-page paper
10 pts. Class attendance
<u>150</u> pts. Final
750 pts. Subtotal

Laboratory -- 25% of class grade (Note: Lab must be passed to pass the course)

Maximum possible points:

120 pts. Sum of best 10 lab reports
120 pts. (60 pts. each) on 2 quizzes
10 pts. Class participation and on
pertinent article presented
<u>    </u> orally to class
250 pts. Subtotal

Total possible points = 1000

Course grade will be based on 900 or more points = A. 800 - 899.5 pts. = B. 700 - 799.5 pts. = C. 600 - 699.5 pts. = D. Below 600 pts. = F.

If you have a physical, psychological and/or learning disability which might affect your performance in this class, please contact the Office of Disability Services 126A B&E, (803)-641-3609 as soon as possible. The Disability Services Office will determine appropriate accommodations based on medical documentation.

Tentative Lecture Schedule

	<u>Text Chapter</u>
January 12 Introduction to course	
15 HOLIDAY 1	
17 The Planets	2
19 Planets continued	
22 Planets cont'd; semester project assignment**	
24 The Sun	3
26 Sun cont'd	
29 Sun cont'd	
31 Plate Tectonics	4
February 2 Tectonics cont'd;	HOMEWORK DUE on Ch. 1, 2 & 3
5 Earthquakes & the Earth's Interior	5
7 Earthquakes cont'd	
9 Earthquakes cont'd;	
12 Minerals and Rocks	6
14 Minerals and Rocks cont'd w/ excerpts from Ch. 18	HOMEWORK DUE on Ch. 4 & 5
16 Minerals and Rocks cont'd	
19 EXAM #1 (on chapters 1 - 5)	
21 Volcanoes (2/22 last day to drop w/o WF)	7
23 Volcanoes cont'd	
26 The Evolving Crust	8
28 Crust cont'd	
March 2 Water on Land	9
	HOMEWORK DUE on Ch. 6, 7 & 8
5-9 HOLIDAYS	
12 Water cont'd	
14 Water cont'd	
16 Snow and Ice	10
19 Snow and Ice cont'd;	11
21 The Ocean	HOMEWORK DUE on Ch. 9 & 10
23 Ocean cont'd	
26 EXAM #2 (on chapters 6 - 10)	
28 Ocean cont'd	
30 The Atmosphere	12
April 2 Atmosphere cont'd	
4 Atmosphere cont'd	
6 Holiday	
9 Winds, Weather and Deserts	13
11 Winds cont'd	HOMEWORK DUE on Ch. 11 & 12

13 Climate	14
16 Climate cont'd;	HOMEWORK DUE on Ch. 13 & 14
18 History of Earth and Life - an overview	
20 Final preparation for Presentations	
23 STUDENT PRESENTATIONS **	
25 STUDENT PRESENTATIONS**;	SEMESTER PROJECT DUE
27 History of Earth and Life - overview cont'd	16 & 17
30 Summary & Review	

May 7 FINAL (on chapters 11- 14) at 8 am - 11 am

Attendance is essential for full participation in class. There will be no make-ups available for missed lectures or weekly labs. However, the lowest lab report grade will be dropped. Homework that is turned in after the due date will lose 2 points for each class meeting that is over due. The student is responsible for obtaining notes to missed material. Make-up lecture exams or lab quizzes will be given only for emergencies considered acceptable to the University as specified in the student manual and approved by the instructor. Only documented excuses will be considered for approval.

#### Tentative Laboratory Schedule

January	16-17 Patterns in the Solar System
	23-24 DuPont Planetarium
	30-31 Review of Planetary Processes
February	6- 7 Earthquakes (ARTICLES***)
	13-14 Minerals
	20-21 Rocks
	27-28 Minerals and Rocks
March	6 - 7 HOLIDAY
	13-14 Waves and Currents
	20-21 Quiz #1 - Minerals and Rocks
	27-28 Atmospheric Moisture
April	3 - 4 Air Masses
	10-11 FIELD TRIP (walking shoes and casual clothes)
	17-18 QUIZ #2 -- Weather
	24-25 STUDENT PRESENTATIONS**

\*\* The student project and oral presentation requires thorough research on a selected topic. The project is a notebook containing several written and visual products. The oral presentation must be about 10 minutes long and discuss in detail one or more facets of the major research topic.

\*\*\* Note: During a lab, each student is to orally present a summary of an article he/she has read. The article must be pertinent to the subject matter of the course and from a responsible source such as DISCOVER or POPULAR SCIENCE.