

U.I.L.

SURVEY
U.I.L. Illinois

ATMOS/GEOG/GEOL 130

Fall 1997

Illinois in the Changing Earth System
ATMOS,GEOG, GEOL 130

Welcome to ATMOS/GEOG/GEOL 130, *Illinois in the Changing Earth System*. This course is offered jointly by the departments of Atmospheric Sciences, Geography and Geology. During the semester you will learn about different parts of the earth system, how they interact, how they affect us in Illinois, how they are changing, and why that matters. This handout contains some useful practical information about the course and a schedule for the semester.

Class time and location

Tu Th 11:30 am to 12:50 pm in 106 Lincoln Hall

Instructors

Prof. Spencer Cotkin, Department of Geology, 301 Natural History Building
244-6293

Prof. Donald Johnson, Department of Geography, 220 Davenport Hall
333-0589, dljohns@uiuc.edu

Prof. Walter Robinson, Department of Atmospheric Sciences, 110 Atmospheric Sciences Building
333-2292, robinson@atmos.uiuc.edu

Teaching Assistant

Ms. Linda Whitmeyer Schwab, Department of Geography, 237-E Davenport Hall,
244-0891, whitmeyer@students.uiuc.edu

Text (required)

Illinois, a Geographical Survey, Ronald E. Nelson, Ed., Kendall Hunt, 1996.

Home page

<http://uiatma.atmos.uiuc.edu/~whitmeyer/130adfly.htm>

Exams and Grading

Grading

Your grade will be determined by three quizzes, a final exam, and approximately six homework assignments:

Quizzes	60%
Final	25%
Homework	15%

The final course grade will be determined on a "curve" with approximately the top quarter of the class receiving A's, the middle half receiving B's, and the lower quarter receiving C's. Plus and minus grades will be assigned.

This curve will apply only to those students with average scores greater than 60% on the exams. Students with exam grades between 50 and 60 % will receive D's, and those with exam grades below 50 % will fail.

Quiz format

Each of the three quizzes will consist of about 15 questions, each to be answered in one or two *complete and grammatical* sentences. The final will be cumulative, but in the same format. Quizzes will be based primarily on material presented in the lectures. *Therefore it is essential that you attend the lectures and take good notes.*

Quiz dates and content

- 1) Thursday, Oct. 2 - The geography of Illinois
- 2) Tuesday, Nov 4 - The geology of Illinois
- 3) Tuesday, Dec 9 - The climate of Illinois

Final exam

1:30–4:30 p.m., Thursday, Dec 18 - Cumulative

Missed quizzes

Students who miss a quiz without previously notifying the instructors or teaching assistant, and without a very well documented excuse, will receive a zero for that quiz. If you know in advance that you must miss a quiz, please notify one of us as early in the semester as possible, and a make-up quiz will be scheduled. *A makeup quiz will be scheduled only if you notify the instructor at or before the last class meeting before the exam.* If you miss a quiz due to a genuine emergency, and you can prove that this was indeed unavoidable, that quiz will be dropped from your average.

Field Trip

The field trip is officially optional but *highly* recommended. We will visit several sites in East Central Illinois where the natural landscape, human modifications of the landscape, and the underlying geology are clearly revealed. Students who turn in a field-trip report will earn extra credit.

Syllabus

Date	Instructor ¹	Topic
1) Tu Sept. 2	SJC, DLJ, WAR	Introduction to the course
2) Th 4	DLJ	Physical landscape of Illinois
3) Tu 9	DLJ	Glaciation & loess in the Midwest/Illinois
4) Th 11	DLJ	Soils of Illinois

¹SJC = Prof. Cotkin, WAR = Prof. Robinson, DLJ = Prof. Johnson

5)	Tu	16	DLJ	Vegetation of Illinois
6)	Th	18	DLJ	Surface and ground water in Illinois
7)	Tu	23	DLJ	History of Illinois settlement
8)	Th	25	DLJ SJC	Societal problems of the Illinois landscape Intro to bedrock of Tuscola Quarry (for field trip)
	Sat	27	SJC, DLJ, WAR	<i>Field Trip</i> Tuscola Quarry, South Farms, Trelease and Brownfield Woods
9)	Tu	30	DLJ	Societal Problems - Guest lecture by Dick Berg from the Illinois State Geological Survey
10)	Th	Oct 2	DLJ	QUIZ I
11)	Tu	7	SJC	General principles of geology - Earth materials; rocks & minerals
12)	Th	9	SJC	Origin, composition and evolution of the Earth
13)	Tu	14	SJC	Plate tectonics and the origins of continents Surface processes
14)	Th	16	SJC	Guest lecture - Mike Chrzastowski, Illinois State Geological Survey - "Midwestern Flood of 1993"
15)	Tu	21	SJC	Earthquakes and earthquake hazards in Illinois
16)	Th	23	SJC	Guest lecture - Dennis Kolata, Illinois State Geological Survey, "Geological history and resources of Illinois"

17)	Tu	28	SJC	Geological resources of Illinois, I: Coal, petroleum, minerals
18)	Th	30	SJC	Geological resources of Illinois, II: Consequences of extraction and utilization
19)	Tu	Nov 4	SJC	QUIZ II
20)	Th	6	WAR	What is climate? The climate of Illinois? Physical mechanisms.
21)	Tu	11	WAR	The Milankovitch theory of ice ages.
22)	Th	13	WAR	Guest lecture. Dr. Wayne Wendland - Holocene Climate of Illinois.
23)	Tu	18	WAR	Guest lecture: Mr. Ryan Bahr - New clean-air standards
24)	Th	20	WAR	Guest lecture: Dr. Kenneth Kunkel - droughts and floods
25)	Tu	25	WAR	Human modification of the atmosphere, I - urban climate
26)	Tu	Dec 2	WAR	Human modification of the atmosphere, II - greenhouse
27)	Th	4	WAR	Models of global warming. Is it happening? Implications for Illinois.
28)	Tu	9	WAR	QUIZ III
29)	Th	11	SJC, DLJ, WAR	Review for final exam, ICES
	Tu	13		Reading Day
	Th	18		FINAL EXAM 1:30 - 4:30 pm