

SYLLABUS--GEOGRAPHY (GEOG)-455
APPLIED CLIMATOLOGY
Spring 2006

Time: T-R 12:30-1:45 p.m. (BOL B95)
Instructor: Prof. Mark D. Schwartz
Office: BOL 490 -- messages may be left in BOL 410 (Geog. Dept.)
Office Phone: 229-3740 Messages: 229-4866 (Geog. Dept.)
Office Hours: by appointment only
Class Reflector: geog-455-001-lec@uwm.edu

Textbooks: Thompson-Perry, *Applied Climatology: principles and practice*, (1997)

This course will serve as an introduction to the application of climatic processes and data to a wide variety of related studies. Topics include: Solar energy, wind energy, food production, water usage, building design, urban environments, ecological assessments, and landform development.

COURSE POLICIES

1. Evaluation (undergraduates and graduates will be evaluated separately)

UNDERGRADUATES: Grades will be assigned on the basis of the total points accumulated in tests, exercises, and discussion/participation throughout the semester (440 possible). These will consist of 3 equally weighted exams (100 points each), exercises (total of 100 points), and discussion/participation (total of 40 points).

GRADUATE STUDENTS: In addition to the above requirements, graduate students will prepare a 10 page (2500 word minimum) paper on a project using applied climatology in a geographic application, and a short talk (about 10 minutes) about their project that will be presented to the class. These will be worth 50 and 20 points, respectively. Therefore they will be graded based on 510 points.

The percentages necessary to receive certain grades will be no higher than the following:

88%--(A-)
78%--(B-)
68%--(C-)
58%--(D-)

2. Notices: Grades, once given are final except in cases of clerical error. Do not use a red pencil or pen to write exam answers. All tests must be taken as scheduled; make-ups are given in case of documented student illness or other emergency only. It is the responsibility of the student to notify the instructor when an exam or other course requirement will be missed. If you need special accommodations in order to meet any of the requirements of this course, please contact me as soon as possible. Do your own work...plagiarism and cheating are unacceptable and will not be tolerated. Additional information regarding the policies and procedures applicable to this course are available on-line (http://www.uwm.edu/Dept/Acad_Aff/policy/uniformsyllabus.html), see especially items under DEPARTMENTAL INFORMATION FOR UNIFORM COURSE SYLLABI at the bottom of the page), and posted in the Geography Dept. main office, BOL410.

TENTATIVE SCHEDULE

		Textbook Chapters
Jan.	24-T-Introduction and course procedures	1
	26-R-Climate data: types and sources	2
	31-T-Remote Sensing	
Feb.	2-R-Climate models	4
	7-T-Surface water balance	
	9-R-Water balance calculation (Handout Exercise 1, Water balance)	
	14-T-Hydrological processes and water resources, Glaciers	6,7
	16-R-Surface energy balance (Collect Exercise 1)	
	21-T-Solar energy	
	23-R-EXAM ONE	
Mar.	28-T-Statistics in climatology	3
	2-R-Statistics (cont.)	
	7-T-Statistical software (Handout Exercise 2, Data Summarization)	
	9-R-Vegetation	10,17
	14-T-Soils (Collect Exercise 2)	9
	16-R-Mesoscale motion, Wind power (Handout Exercise 3, Wind power)	20
	21-T and 23-R- NO CLASS--SPRING BREAK	
	28-T-Agriculture	16
Apr.	30-R-Transportation, Industry (Collect Exercise 3)	14,15
	4-T-Ecological assessment, Legal aspects of climate	19
	6-R-EXAM TWO	
May	11-T-Human climatology, Climatic hazards (Handout Class Project Exercise [6], due 5/11)	12,23
	13-R-Air pollution climatology	5,22
	18-T-Dispersion modeling (Handout Exercise 4, Air Pollution)	
	20-R-Urban climates	21
	25-T-Housing design (Collect Exercise 4/Handout Exercise 5)	13
	27-R-Housing design (cont., Guest Lecture)	
	2-T-Geomorphic processes and landforms (Collect Exercise 5) (Guest Lecture)	8
	4-R-Paleoclimates and climate change (Guest Lecture)	
	9-T-Paleoclimates and climate change (cont., Guest Lecture)	24
	11-R-Presentations of class projects, evaluations (Collect Exercise 6)	
	16-Tuesday-EXAM THREE (12:30 p.m. - 2:30 p.m.)	