

COURSE IMPLEMENTATION DATE: January 2006
 COURSE REVISED IMPLEMENTATION DATE:
 COURSE TO BE REVIEWED: November 2009
 (Four years after UPAC final approval date) (MONTH YEAR)

OFFICIAL COURSE OUTLINE INFORMATION

Students are advised to keep course outlines in personal files for future use.
 Shaded headings are subject to change at the discretion of the department and the material will vary
 - see course syllabus available from instructor

FACULTY/DEPARTMENT:	Geography	
GEOG 307	N/A	4
COURSE NAME/NUMBER	FORMER COURSE NUMBER	UCFV CREDITS
	Urban Climatology	
COURSE DESCRIPTIVE TITLE		

CALENDAR DESCRIPTION:

This course explores the climatic effects of urbanization with a focus on the collection and analysis of urban climate data. Human-weather interaction in the urban setting and potential mitigation techniques of negative impacts are also examined.

PREREQUISITES: **GEOG 201**
 COREQUISITES:

SYNONYMOUS COURSE(S)	SERVICE COURSE TO:
(a) Replaces: _____ (Course #)	_____
(b) Cannot take: _____ for further credit. (Course #)	_____

TOTAL HOURS PER TERM:	75	TRAINING DAY-BASED INSTRUCTION
STRUCTURE OF HOURS:		LENGTH OF COURSE: _____
Lectures: 40 Hrs		HOURS PER DAY: _____
Seminar: _____ Hrs		
Laboratory: 20 Hrs		
Field Experience: 15 Hrs		
Student Directed Learning: _____ Hrs		
Other (Specify): _____ Hrs		

MAXIMUM ENROLLMENT:	25
EXPECTED FREQUENCY OF COURSE OFFERINGS:	Once Every other year
WILL TRANSFER CREDIT BE REQUESTED? (lower-level courses only)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
WILL TRANSFER CREDIT BE REQUESTED? (upper-level requested by department)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
TRANSFER CREDIT EXISTS IN BCCAT TRANSFER GUIDE:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

AUTHORIZATION SIGNATURES:

Course Designer(s): _____ Steven Marsh, MSc	Chairperson: _____ Raymond Welch (<i>Curriculum Committee</i>)
Department Head: _____ Dr. Sandy Vanderburgh	Dean: _____ Dr. Eric Davis
UPAC Approval in Principle Date: _____	UPAC Final Approval Date: November 25, 2005

LEARNING OBJECTIVES / GOALS / OUTCOMES / LEARNING OUTCOMES:

This course is intended to provide students with the scientific principles involved in urban climatology. Upon successful completion of the course the student will be able to 1) demonstrate an understanding of the meteorological principles of the urban climate system, 2) demonstrate an ability to collect and analyze urban weather data, 3) demonstrate an understanding of the effects of the urbanization on the atmosphere, and 4) understand practical implications and potential mitigation methods of negative urban-climate impacts.

METHODS:

The format of the course includes lectures, guest speakers, class discussions, weekly labs, and field work.

PRIOR LEARNING ASSESSMENT RECOGNITION (PLAR):

Credit can be awarded for this course through PLAR (Please check:) Yes No

METHODS OF OBTAINING PLAR:

Portfolio assessment, exams or other methods as appropriate.

TEXTBOOKS, REFERENCES, MATERIALS:

[Textbook selection varies by instructor. An example of texts for this course might be:]

De Dear, Richard, et al., (eds), 1999. *Biometeorology and Urban Climatology at the turn of the millennium: selected papers from the conference ICB-ICUC'99*. Geneva: World Meteorological Society.

Moussiopoulos, N., 2003. *Air Quality in Cities*. New York: Springer.

Klysik, K., T.R. Oke, K. Fortuniak, C.S.B. Grimmond, and J. Wibig (eds.), 2004. *Proceedings Fifth International Conference on Urban Climate*, Vols. 1 and 2.

Oke, T.R., 1987. *Boundary Layer Climates*. New York: Routledge

SUPPLIES / MATERIALS:

N/A

STUDENT EVALUATION:

[An example of student evaluation for this course might be:]

Labs, presentations, reports 40-60%

Exams 40-60%

COURSE CONTENT:

[Course content varies by instructor. An example of course content might be:]

Lecture Topics:

1. Urban climates.
2. Urban radiation budgets.
3. Anthropogenic heat production.
4. Urban energy balances.
5. Urban roughness and winds.
6. Urban aerosols.
7. Urban effects on cloud and precipitation.
8. Urban water balance.
9. Urban Heat Island.
10. Urban moisture island.
11. Mitigation techniques.

