UNIVERSITY OF THE FRASER VALLEY

OFFICIAL UNDERGRADUATE COURSE OUTLINE (page 1)

COURSE IMPLEMENTATION DATE: Fall 1994
COURSE REVISED IMPLEMENTATION DATE: May 2014
COURSE TO BE REVIEWED: May 2020
(six years after UEC approval) *(month, year)*

OFFICIAL UNDERGRADUATE 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 – see course syllabus available from instructor

GEOG 201	Geography	4
COURSE NAME/NUMBER	FACULTY/DEPARTMENT	UFV CREDITS

Introduction to Climatology
COURSE DESCRIPTIVE TITLE

CALENDAR DESCRIPTION:

This course is a survey course in introductory climatology. Lecture topics range from the micro-scale (air pollution), to meso-scale (urban heat island), to synoptic-scale (tropical cyclones), and global-scale (climatic change).

PREREQUISITES: GEOG 101 or GEOG 103
COREQUISITES:
PRE or COREQUISITES:

SYNONYMOUS COURSE(S):
(a) Replaces:
(b) Cross-listed with:
(c) Cannot take: for further credit.

SERVICE COURSE TO: *(department/program)*

TOTAL HOURS PER TERM: 75

STRUCTURE OF HOURS:

Lectures:	45	Hrs
Seminar:		Hrs
Laboratory:	30	Hrs
Field experience:		Hrs
Student directed learning:		Hrs
Other (specify):		Hrs

TRAINING DAY-BASED INSTRUCTION:
Length of course:
Hours per day:

OTHER:
Maximum enrolment: **25**
Expected frequency of course offerings: Once every year
(every semester, annually, every other year, etc.)

WILL TRANSFER CREDIT BE REQUESTED? (lower-level courses only)	☒ Yes	☐ No
WILL TRANSFER CREDIT BE REQUESTED? (upper-level requested by department)	☐ Yes	☒ No
TRANSFER CREDIT EXISTS IN BCCAT TRANSFER GUIDE:	☒ Yes	☐ No

Course designer(s): **Steven Marsh**
Department Head: **Michelle Rhodes** Date approved: **October 3, 2013**
Campus-Wide Consultation (CWC) Date of meeting: **October 11, 2013**
Curriculum Committee chair: **David Fenske** Date approved: **October 18 2013**
Dean/Associate VP: **Lucy Lee** Date approved: **October 18, 2013**
Undergraduate Education Committee (UEC) approval Date of meeting: **November 22, 2013**

LEARNING OUTCOMES:

Upon successful completion of this course, students will be able to:

1. Discuss and explain the basic scientific principles that modern climatology is based upon, including physical, dynamic, and applied climatology at all spatial scales.
2. Describe and explain the basic atmospheric radiation theory and its application to microclimate modification, thermodynamics and moisture, precipitation processes, atmospheric motion, frontal theory, general circulation of the atmosphere, tropical climatology, severe thunderstorms, and global climate change.
3. Discuss and summarize the findings of contemporary research topics in climatology.

METHODS: *(Guest lecturers, presentations, online instruction, field trips, etc.)*

The format of the course will include lectures, assigned readings, laboratory sessions and assignments, discussion groups, oral presentations, field trips, and guest speakers. Lecture topics will emphasize conceptual and theoritical issues and will be supplemented by the use of audio visual aids throughout the course. Laboratory assignments will emphasize advanced techniques in the analysis and interpretation of meteorological and climatological data.

METHODS OF OBTAINING PRIOR LEARNING ASSESSMENT RECOGNITION (PLAR):

☒ Examination(s) ☒ Portfolio assessment ☐ Interview(s)

☐ Other (specify):

☐ PLAR cannot be awarded for this course for the following reason(s):

TEXTBOOKS, REFERENCES, MATERIALS:

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

Aguado, Edward and James E. Burt, 2010. Understanding Weather and Climate Fifth Edition. Upper Saddle River, NJ: Pearson Education Inc.

SUPPLIES / MATERIALS:

STUDENT EVALUATION:

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

Assignments and reports	60%
Exams	40%

COURSE CONTENT:

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

1. Energy and Radiation
2. Energy Balance and Temperature
3. Atmospheric Themodynamics and Humidity
4. Clouds and Precipitation
5. Atmospheric Statics and Dynamics
6. Global Wind Systems
7. Air Masses and Fronts
8. Middle Latitude Cyclones
9. Global Climate
10. Severe Weather
11. Urban Heat Island
12. Climate Change