

OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

Note: The University reserves the right to amend course outlines as needed without notice.

Course Code and Number: GEOG 201

Number of Credits: 4 [Course credit policy \(105\)](#)

Course Full Title: Introduction to Climatology
 Course Short Title:

Faculty: Faculty of Social Sciences

Department (or program if no department): Geography and the Environment

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 (or NONE): One of the following: GEOG 101, GEOG 103, or GEOG 116.

Corequisites (if applicable, or NONE):

Pre/corequisites (if applicable, or NONE):

Equivalent Courses (cannot be taken for additional credit)

Former course code/number:

Cross-listed with:

Equivalent course(s):

Note: Equivalent course(s) should be included in the calendar description by way of a note that students with credit for the equivalent course(s) cannot take this course for further credit.

Transfer Credit

Transfer credit already exists: Yes No

Transfer credit requested (OReg to submit to BCCAT):

Yes No (Note: If yes, fill in transfer credit form)

Resubmit revised outline for articulation: Yes No

To find out how this course transfers, see bctransferguide.ca.

Total Hours: 75

Typical structure of instructional hours:

Lecture hours	45
Seminars/tutorials/workshops	
Laboratory hours	30
Field experience hours	
Experiential (practicum, internship, etc.)	
Online learning activities	
Other contact hours:	
Total	75

Special Topics

Will the course be offered with different topics?

Yes No

If yes,

Different lettered courses may be taken for credit:

No Yes, repeat(s) Yes, no limit

Note: The specific topic will be recorded when offered.

Maximum enrolment (for information only): 25

Expected frequency of course offerings
(every semester, annually, etc.): annually

Department / Program Head or Director: Michelle Rhodes

Date approved: October 2014

Campus-Wide Consultation (CWC)

Date of posting: n/a

Faculty Council approval

Date approved: October 2014

Dean/Associate VP: Lucy Lee

Date approved: October 2014

Undergraduate Education Committee (UEC) approval

Date of meeting: November 21, 2014

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.

Prior Learning Assessment and Recognition (PLAR)

Yes No, PLAR cannot be awarded for this course because

Typical Instructional Methods (guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion)

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 theoretical 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.

NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.

Typical Text(s) and Resource Materials (if more space is required, download supplemental Texts and Resource Materials form)

<u>Author Surname</u> <u>Initials</u>	<u>Title (article, book, journal, etc.)</u>	<u>Current Edition</u>	<u>Publisher</u>	<u>Year Published</u>
1. Aguado, Edward and James E. Burt	Understanding Weather and Climate, 5 th edition Upper Saddle River, NJ	<input checked="" type="checkbox"/>	Pearson, Education	2010
2.		<input type="checkbox"/>		
3.		<input type="checkbox"/>		
4.		<input type="checkbox"/>		
5.		<input type="checkbox"/>		

Required Additional Supplies and Materials (Eg. Software, hardware, tools, specialized clothing)**Typical Evaluation Methods and Weighting**

Final exam:	%	Assignments:	60%	Midterm exam:	%	Practicum:	%
Quizzes/tests:	%	Lab work:	%	Field experience:	%	Shop work:	%
Exams	40%	Other:	%	Other:	%	Total:	0%

Details (if necessary):

Grading system: Letter Grades: Credit/No Credit: Labs to be scheduled independent of lecture hours: Yes No

Typical Course Content and Topics

1. Energy and Radiation
2. Energy Balance and Temperature
3. Atmospheric Thermodynamics 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