



GEOG/ENST2331 Climatology Autumn 2016

Introduction to Climatology

Instructor: Lisa TUTTY BSc (hon) MSc. ltutty@lakeheadu.ca

Office hours: Thursdays (when we have class) from 10-noon, in desk 14 on the 3rd floor of the OA building (washroom end)

Lecture: Tuesdays and Thursdays 8:30-9:30 in OA2015 until Fri Dec 2nd 2016

Lab: Fridays 2:30-4:30 in OA1025

Course Objectives: This course gives a general introduction to meteorology and climatology. *Meteorology topics include* energy balance in the atmosphere, moisture and cloud development in the atmosphere, atmospheric dynamics, small and large scale circulations, storms and cyclones, and weather forecasting. *Climatology topics include* the interaction between the atmosphere and oceans over long time periods, climate classification, and the potential for climatic change. Students will understand the physics that drive weather systems; examine the features that create climatic patterns at small (micro) and large (macro) scales; and consider the impacts that climate and weather have on human systems, and vice versa.

Text: Ahrens, Jackson and Jackson, 2015. Meteorology Today, 2nd Canadian Edition.

Marks Breakdown:

25% Midterm test (*proposed for* Thursday Oc 27th during class time)

20% Labs

7% Lab Quiz

8% Group Project

40% Final exam

Late penalty is 10% per day, including weekends. Please use the student health certificate for medical absences: <https://www.lakeheadu.ca/sites/default/files/forms/F.HealthCertificate.pdf>

A+	90 to 100%	Outstanding understanding of the course concepts including integration of materials and ideas, ability to apply knowledge to situations
A	80 to 89%	Above average to excellent knowledge, ability to apply knowledge to situations
B	70 to 79%	Satisfactory knowledge including ability to recognise and apply major course concepts, and to progress to next level of course
C	60 to 69%	Some grasp of course concepts; will likely encounter difficulty with higher levels
D	50 to 59%	Failed to meet minimum requirements of the course
E	40 to 49%	Failure
F	1 to 39%	Failure resulting from academic dishonesty
F	0	

Mark descriptions from Lakehead University. Students are advised to refer to the University Calendar to ensure that they have adequate grades and/or average to proceed in their program. Grades in this course are numerical (not letters).

Accommodations: Lakehead University is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all of their academic activities. If you think you may need accommodations, you are strongly encouraged to contact Student Accessibility Services (SAS) and register as early as possible. For more information, please visit: <http://studentaccessibility.lakeheadu.ca>

Academic integrity – Code of student behaviour and disciplinary procedures.
<https://www.lakeheadu.ca/faculty-and-staff/policies/student-related/code-of-student-behaviour-and-disciplinary-procedures>

Academic Integrity:

Academic integrity is fundamental to learning and scholarship at Lakehead University. Participating honestly, respectfully, responsibly, and fairly in this academic community ensures that the degree that you earn will be valued as a true indication of your individual academic achievement, and will continue to receive the respect and recognition it deserves. The University takes a most serious view of offences against academic honesty such as plagiarism, cheating and impersonation. Penalties for dealing with such offences will be strictly enforced.

The "Code of Student Behaviour and Disciplinary Procedures" including sections on plagiarism and other forms of misconduct may be found on the Lakehead University Senate website. See the Code under "Policies - Student Related" in the University Policies at policies.lakeheadu.ca.

Potential offences include, but are not limited to:

In papers and assignments:

- Using someone else's ideas or words without appropriate acknowledgement.
- Copying material word-for-word from a source (including lecture and study group notes) and not placing the words within quotation marks.

- Submitting your own work in more than one course without the permission of the instructor.
- Making up sources or facts.
- Including references to sources that you did not use.
- Obtaining or providing unauthorized assistance on any assignment including:
- Working in groups on assignments that are supposed to be individual work;
- Having someone rewrite or add material to your work while “editing”.
- Lending your work to a classmate who submits it as his/her own without your permission.

On tests and exams:

- Using or possessing any unauthorized aid, including a cell phone.
- Looking at someone else’s answers
- Letting someone else look at your answers.
- Misrepresenting your identity.
- Submitting an altered test for re-grading.

Misrepresentation:

- Falsifying or altering any documentation required by the University, including doctor’s notes.
- Falsifying institutional documents or grades.

The following rules shall govern the treatment of candidates who have been found guilty of attempting to obtain academic credit dishonestly.

(a) The *minimum* penalty for a candidate found guilty of plagiarism, or of cheating on any part of a course will be a zero for the work concerned.

(b) A candidate found guilty of cheating on a formal examination or a test, or of serious or repeated plagiarism, or of unofficially obtaining a copy of an examination paper before the examination is scheduled to be written, will receive zero for the course and may be expelled from the University.

Neat 15 minute exercise from Cardiff University (Avoiding plagiarism):

<https://ilrb.cf.ac.uk/plagiarism/tutorial/>

* Schedule is subject to changes.

Mon Sep 5	Tues Sep 6	Wed Sep 7	Thurs Sep 8	Fri Sep 9	Sat Sep 10	Sun Sep 11
Labour Day (University closed)	8:30-9:30 GEOG2331 Climatology OA2015. 1.INTRODUCTION. Ch1.		8:30-9:30 GEOG2331 Climatology OA2015. 2.THE ATMOSPHERE. Ch1.	2:30-4:30 GEOG2331 Climatology LAB OA1025		
			Office hours 10-noon			
Mon Sep 12	Tues Sep 13	Wed Sep 14	Thurs Sep 15	Fri Sep 16	Sat Sep 17	Sun Sep 18
	8:30-9:30 GEOG2331 Climatology OA2015. 3.RADIATION AND ENERGY. Ch2.		8:30-9:30 GEOG2331 Climatology OA2015. 4.GLOBAL ENERGY BALANCE. Ch2.	2:30-4:30 GEOG2331 Climatology LAB OA1025		
			Office hours 10-noon			
Mon Sep 19	Tues Sep 20	Wed Sep 21	Thurs Sep 22	Fri Sep 23	Sat Sep 24	Sun Sep 25
Final date to add courses	8:30-9:30 GEOG2331 Climatology OA2015. 5.TEMPERATURE & TIME. Ch2&3.		8:30-9:30 GEOG2331 Climatology OA2015. 6.TEMPERATURE & GEOGRAPHY. Ch3.	2:30-4:30 GEOG2331 Climatology LAB OA1025		
			Office hours 10-noon			
Mon Sep 26	Tues Sep 27	Wed Sep 28	Thurs Sep 29	Fri Sep 30	Sat Oc 1	Sun Oc 2
	8:30-9:30 GEOG2331 Climatology OA2015. 7.PRESSURE GRADIENTS. Ch8		8:30-9:30 GEOG2331 Climatology OA2015. 8.FORCES & WINDS. Ch8.	2:30-4:30 GEOG2331 Climatology LAB OA1025		
			Office hours 10-noon			

Mon Oc 3	Tues Oc 4	Wed Oc 5	Thurs Oc 6	Fri Oc 7	Sat Oc 8	Sun Oc 9
	8:30-9:30 GEOG2331 Climatology OA2015. 9.MOISTURE IN THE ATMOSPHERE. Ch4.		8:30-9:30 GEOG2331 Climatology OA2015. 10.ATMOSPHERIC STABILITY. Ch6.	2:30-4:30 GEOG2331 Climatology LAB OA1025		
			Office hours 10-noon			
Mon Oc 10	Tues Oc 11	Wed Oc 12	Thurs Oc 13	Fri Oc 14	Sat Oc 15	Sun Oc 16
Thanksgiving (University closed)	Study break	Study break	Study break	Study break		
Mon Oc 17	Tues Oc 18	Wed Oc 19	Thurs Oc 20	Fri Oc 21	Sat Oc 22	Sun Oc 23
	8:30-9:30 GEOG2331 Climatology OA2015. 11.CLOUD FORMATION. Ch5&6.		8:30-9:30 GEOG2331 Climatology OA2015. 12.PRECIPITATION. Ch7.	2:30-4:30 GEOG2331 Climatology LAB OA1025		
			Office hours 10-noon			
Mon Oc 24	Tues Oc 25	Wed Oc 26	Thurs Oc 27	Fri Oc 28	Sat Oc 29	Sun Oc 30
	8:30-9:30 GEOG2331 Climatology OA2015. 13.MIDTERM REVIEW AND/OR CATCH-UP.		8:30-9:30 GEOG2331 Climatology OA2015 MIDTERM TEST (proposed, to be confirmed)	2:30-4:30 GEOG2331 Climatology LAB OA1025		
			Office hours 10-noon			
Mon Oc 31	Tues Nov 1	Wed Nov 2	Thurs Nov 3	Fri Nov 4	Sat Nov 5	Sun Nov 6
	8:30-9:30 GEOG2331 Climatology OA2015. 14.ATMOSPHERIC CIRCULATIONS. Ch9.		8:30-9:30 GEOG2331 Climatology OA2015. 15.GLOBAL CIRCULATION. Ch10.	2:30-4:30 GEOG2331 Climatology LAB OA1025		
			Office hours 10-noon			

Mon Nov 7	Tues Nov 8	Wed Nov 9	Thurs Nov 10	Fri Nov 11	Sat Nov 12	Sun Nov 13
Final date to drop courses	8:30-9:30 GEOG2331 Climatology OA2015. 16.AIR MASSES & FRONTS. Ch11.		8:30-9:30 GEOG2331 Climatology OA2015. 17. MIDLATITUDE CYCLONES. Ch12.	2:30-4:30 GEOG2331 Climatology LAB OA1025		
			Office hours 10-noon			
Mon Nov 14	Tues Nov 15	Wed Nov 16	Thurs Nov 17	Fri Nov 18	Sat Nov 19	Sun Nov 20
	8:30-9:30 GEOG2331 Climatology OA2015. 18.THUNDERSTORMS & TORNADOES. Ch13.		8:30-9:30 GEOG2331 Climatology OA2015. 19.HURRICANES. Ch14.	2:30-4:30 GEOG2331 Climatology LAB OA1025		
			Office hours 10-noon			
Mon Nov 21	Tues Nov 22	Wed Nov 23	Thurs Nov 24	Fri Nov 25	Sat Nov 26	Sun Nov 27
	8:30-9:30 GEOG2331 Climatology OA2015. 20.HURRICANE FORECASTS & POLAR LOWS. Ch14&15.		8:30-9:30 GEOG2331 Climatology OA2015. 21.CLIMATE CLASSIFICATION. Ch17.	2:30-4:30 GEOG2331 Climatology LAB OA1025		
			Office hours 10-noon			
Mon Nov 28	Tues Nov 29	Wed Nov 30	Thurs Dec 1	Fri Dec 2	Sat Dec 3	Sun Dec 4
	8:30-9:30 GEOG2331 Climatology OA2015. 22.GLOBAL CLIMATE CHANGE. Ch16.		8:30-9:30 GEOG2331 Climatology OA2015. 23.CHARACTERISTICS OF GLOBAL WARMING. Ch16.	2:30-4:30 GEOG2331 Climatology LAB OA1025		
			Office hours 10-noon			
Mon Dec 5	Tues Dec 6	Wed Dec 7	Thurs Dec 8	Fri Dec 9	Sat Dec 10	Sun Dec 11
	Study break	Study break	Start of exams			
Mon Dec 12	Tues Dec 13	Wed Dec 14	Thurs Dec 15	Fri Dec 16	Sat Dec 17	Sun Dec 18
						End of exams