

The University of Western Ontario
 Department of Geography and Environment
GEOGENV 2310A: Weather and Climate
 Fall 2026

1. Course Information

Lecture Delivery Mode	Day and Time	Location
In-person	See UWO Course Timetable	

Lab Delivery Mode	Day and Time	Location
In-person	See UWO Course Timetable	

Fall Classes Start	Reading Week	Fall Classes End	Study Day	Fall Final Exams
Sep 9	Oct 10 – 18	Dec 9	Dec 10	Dec 11 – Dec 22

Sep 17: Last day to add a first term half course

Sep 30: National Day for Truth and Reconciliation

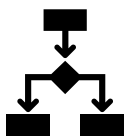
Oct 12: Thanksgiving Day

Nov 30: Last day to drop a first term half course without penalty

Course Instructor	Contact Information	Office	Office Hours
Mark Moscicki	mmoscic@uwo.ca	See OWL Brightspace	

2. Calendar Description

Course Description



Fundamentals of the physical processes underlying weather and climate; radiant energy, energy balances, clouds, atmospheric dynamics and thermodynamics; principles of the greenhouse effect, mid-latitude cyclones and aspects of weather forecasting, severe weather phenomena and atmospheric optics.

2 lecture hours, 2 laboratory hours, 0.5 course weight

3. Readings



Ahrens, C.D. and Henson, R. (2024): Essentials of Meteorology: An Introduction to the Atmosphere (9th Edition), Cengage Learning: Boston, MA.

4. Learning Objectives



The objectives of this course are to provide students with:

- an understanding of the fundamental basis of weather and climate phenomena
- an appreciation of the impact of weather and climate on our daily lives
- an introduction to numerical based meteorological problem-solving skills
- improved map reading abilities and geographic awareness

5. Course Format

Attendance at class sessions and tutorials is expected as some assessments will be completed during class time in the classroom. Selected course material will be posted to [OWL Brightspace](#).

[Google Chrome](#) or [Mozilla Firefox](#) are the preferred browsers to optimally use OWL Brightspace; update your browsers frequently. Students interested in evaluating their internet speed, please click [here](#). Using the proper browser is important, especially when using different features integrated with OWL Brightspace.



If students need assistance, support can be found on the [OWL Brightspace Help page](#). Alternatively, students can contact the [Western Technology Services Helpdesk](#). They are also available by phone at 519-661-3800 or ext. 83800.

Closed captioning is provided on all video clips.

6. Communication



Students should check the course website regularly to keep up with announcements. E-mails to the instructor or to a teaching assistant must be sent from a UWO account and should contain the course code in the subject. E-mails will receive a response within 24 hours on weekdays.

7. Evaluation



Students are responsible for material covered in lectures as well as the assigned readings. Question sets are completed during class time, and each one is worth 0.5% of the course grade. Information about the photo assignment will be provided during the semester. The midterm test will cover material studied from Sep 10 through Oct 22. The final exam is cumulative but weighted toward material studied in the second half of the semester. The test and exam may consist of multiple choice, definition, fill in the blank, short answer, discussion, and weather map analysis questions.

<i>Component</i>	<i>Date</i>	<i>Value</i>
Laboratory Exercises	Weekly	36%
Question Sets	Weekly	5%
Midterm Test	Oct 29	22%
Photo Assignment	Nov 27	5%
Final Exam	TBA	32%

Requirements

A passing grade must be earned on at least 5 laboratory exercises to pass the course.

Course Grades

Grades will not be adjusted on the basis of need. It is important to monitor your performance in the course. You are responsible for your grades in the course.

Late Assessments

Laboratory exercises submitted late without approved documentation will be subject to a penalty of 10% per day.

8. Lecture Schedule

<i>Lecture</i>	<i>Date</i>	<i>Topic</i>	<i>Reading: Chapter</i>
1	Sep 10	Scales and Symbols	Apx C
		The Atmosphere	1
2	Sep 17	Energy	2
		Air Temperature	3
3	Sep 24	Climatic Controls	3
		Atmospheric Moisture	4
4	Oct 1	Clouds and Fog	4
		Stability	5
5	Oct 8	Tephigrams	
		Precipitation Development	5
6	Oct 22	Precipitation	5
		Air Pressure	6
	Oct 29	Midterm Exam	
7	Nov 5	Winds	6
		Small Scale Winds	7
8	Nov 12	Global Circulation Patterns	7
		Air Masses and Fronts	8
9	Nov 19	Mid-Latitude Cyclones	8
		Weather Forecasting	9
10	Nov 26	Thunderstorms	10
		Tornadoes and Hurricanes	11
11	Dec 3	<i>Video: Decoding the Weather Machine</i>	
		Weather Forecasting, Atmospheric Optics	15

9. Laboratory Schedule

There are 9 lab exercises; each one will be introduced at the beginning of the lab session and is due one week later. Each exercise is worth 4% of the course grade. Students are expected to work on the exercises during the time allotted in the lab classroom.

Lab exercises are not accepted electronically; a completed paper copy of each exercise is required to be submitted by its due date to avoid a lateness penalty.

<i>Exercise</i>	<i>Date (Mon)</i>	<i>Date (Tue)</i>	<i>Date (Wed)</i>	<i>Topic</i>
1	Sep 14	Sep 15	Sep 16	Station Symbols
2	Sep 21	Sep 22	Sep 23	Radiation Balances
3	Oct 5	Oct 6	Oct 7	Atmospheric Moisture
4	Oct 19	Oct 20	Oct 21	Tephigrams
5	Nov 2	Nov 3	Nov 4	Climate Statistics
6	Nov 9	Nov 10	Nov 11	Winds
7	Nov 16	Nov 17	Nov 18	Climate Data
8	Nov 23	Nov 24	Nov 25	Surface Map Analysis
9	Nov 30	Dec 1	Dec 2	Severe Weather

10. Accommodation Policies

Accessible Education

Students with disabilities work with Accessible Education which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The accommodation policy can be found here: [Academic Accommodation for Students with Disabilities](#).

Absence from Course Commitments

Students must familiarize themselves with the [Policy on Academic Consideration – Undergraduate Students in First Entry Programs](#)

Students missing course work for medical, compassionate or extenuating circumstances can request academic consideration by completing a request through the central academic consideration portal. Students are permitted one academic consideration request per course per term without supporting documentation. Note that supporting documentation is always required for the final exam.

Missed lecture notes are not sent out by e-mail. It is the student's responsibility to obtain any missed lecture notes from a classmate.

General Information about Missed Work

University policy requires that all requests for academic considerations must be accompanied by a self-attestation on the Student Absence Portal within 48 hours. Any academic considerations granted in this course will be determined by the instructor, in consultation with the academic advisors in your Faculty of Registration, in accordance with information presented in this course outline. Supporting documentation for

academic considerations for absences due to illness should use the [Student Medical Certificate](#) or, where that is not possible, equivalent documentation by a health care practitioner.

Course Assessment that Requires Supporting Documentation (Midterm Test)

The midterm test has been designated as an assessment that requires formal documentation because it is considered central to the learning objectives for this course. Students seeking academic consideration for the midterm test will be required to provide formal supporting documentation to their Faculty of Registration. If academic consideration for the midterm test is granted, then a make-up midterm test will be scheduled. If a student is unable to attend the make-up midterm test at the scheduled time for a valid reason, then its weight will be transferred to the final exam.

Course Assessment with a Flexible Deadline (Photo Assignment)

The photo assignment has a flexible deadline. Students are expected to submit the assignment by the deadline listed on the course outline. Should illness or extenuating circumstances arise, students are permitted to submit the assignment up to 48 hours past the deadline without academic penalty. Should an assignment be submitted beyond 48 hours past the deadline, a late penalty of 10% per day will be subtracted from the assessed grade. Since a flexible deadline is used for the assignment, requests for academic consideration for the assignment will not be granted. If you have a long-term academic consideration or an accommodation for disability that allows greater flexibility than provided here, you must notify the instructor at least one week prior to the deadline listed on the course outline.

Accommodation for Religious Holidays

Students should review the policy for [Accommodation for Religious Holidays](#). Where a student will be unable to write an exam due to a conflicting religious holiday, they should inform the instructor as soon as possible but not later than two weeks prior to writing the final exam. In the case of conflict with a midterm test, students should inform the instructor as soon as possible but not later than one week prior.

11. Make-up Test and Exams

Procedure on make-up assessments for courses in the Faculty of Social Science:

Students who miss a regularly scheduled test or exam may request academic consideration through the [Student Absence Portal](#).

If academic consideration is granted, a make-up test or exam will be scheduled. Students are entitled to **one make-up assessment opportunity** supported by approved academic

consideration. **No additional make-up opportunities will be provided.** Make-up assessments represent the final opportunity to complete a missed test or exam.

Students who miss a make-up assessment are not eligible for an additional make-up opportunity. Depending on circumstances, they may:

1. Remain enrolled in the course and consult with the course outline to calculate whether they can still achieve a passing grade in the course.
2. Withdraw from the course through Student Centre before the published drop deadline (e.g., for a missed make-up midterm test). A course dropped before the deadline will result in a withdrawal (WDN) without academic penalty. Part-time students should consult the Registrar's Office refund schedule to determine whether a tuition refund is available. Students enrolled full time in 4.0 to 5.0 courses are generally not eligible for tuition refunds when a course is dropped.
3. If the published drop deadline has passed (e.g., for a missed final exam) and the missed make-up assessment is supported by appropriate documentation, students may submit their documentation through the Student Absence Portal to request a WDN (withdrawal without academic penalty). Approval is not automatic and remains subject to Faculty review. Requests for a second make-up exam will not be considered.

Students are encouraged to carefully consider their ability to complete a make-up assessment as scheduled, as no further opportunities to complete the missed work will be available.

12. Academic Offences

Scholastic offences are taken seriously, and students are directed to read the appropriate policy, specifically, the definition of what constitutes a [scholastic offence](#).

For activities that are completed in pairs, each student must write their own identifying information (name, student number, and signature). Writing someone else's identifying information is an offence; any student who has been found to have done this will receive a grade of zero on the assessment.

13. Use of Electronic Devices

No electronic devices will be permitted during the quizzes, test, or exam.

14. Use of Generative Artificial Intelligence (AI)

The use of AI to aid in completing any assessment is not permitted in this course.

Representing an idea, an expression of an idea, or a writing style or structure that was generated by artificial intelligence will be considered an offence.

15. Commitment to Accessibility

The Department of Geography and Environment strives at all times to provide accessibility to all faculty, staff, students and visitors in a way that respects the dignity and independence of people with disabilities. Please contact the instructor if you require material in an alternate format or if you require any other arrangements to make the course more accessible to you. You may also wish to contact Student Accessibility Services (SAS) at 519-661-2147 for any specific question regarding an accommodation. Information regarding [accommodated exams](#) is available. More information about [accessibility](#) is available as well.

16. Mental Health

Students who are in emotional or mental distress should refer to the [Health and Wellness](#) site for a complete list of options about how to obtain help.

17. Support Sites

[Office of the Registrar](#)
[Western Support Services](#)
[Learning Development and Success Centre](#)

Western is committed to reducing incidents of gender-based and sexual violence and providing compassionate support to anyone who has gone through these traumatic events. If you have experienced sexual or gender-based violence (either recently or in the past), you will find information about support services for survivors, including emergency contacts [here](#). To connect with a case manager or set up an appointment, please contact support@uwo.ca.

18. Important Dates

Sep 9: Fall classes begin
Sep 17: Last day to add a first term half course
Sep 30: National Day for Truth and Reconciliation (non-instructional day)
Oct 10 – 18: Fall Reading Week (no classes; department office open)
Oct 12: Thanksgiving Day (department office closed)
Nov 30: Last day to drop a first term half course without penalty
Dec 9: Fall classes end
Dec 10: Study day
Dec 11 - 22: Fall examination period