

GEOG-3219-001
QUATERNARY ENVIRONMENTS
Fall 2021

INSTRUCTOR: Bill Buhay
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11:30 – 12:30)
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Lectures: Tuesday 13:00 – 16:00, Room 3M58

COURSE DESCRIPTION: The Quaternary is a period of dramatic climatic changes. This course examines the consequences of Quaternary climatic fluctuations on the physical environment. Consideration will also be given to some of the important evidence and techniques used to reconstruct Quaternary environments and chronology.

IMPORTANT DATES:

First Lecture	Tues. Sept. 7, 2021
Truth and Reconciliation Day: University Closed	Thurs. Sept. 30, 2021
Mid-term reading week. No classes	Oct. 11-15, 2021
Thanksgiving Day: University Closed	Mon. Oct. 11, 2021
Remembrance Day: University Closed	Thurs. Nov. 11, 2021
Final date to withdraw without academic penalty	Tues. Nov. 16, 2021
Last Lecture	Tues. Nov. 30, 2021
Fall Term Evaluation Period	Dec. 10-23, 2021

COURSE ASSESSMENT:

Mid-Term Test	30 %	Tues. Oct. 18, 2021
Term Paper (details Sept. 28)	40%	Due on Tues. Dec. 7, 2021
Final Exam	30 %	Date T.B.A. (13:00-15:00; 3M58)

90-100% = A+; 84-89 = A; 80-83 = A-; 75-79 = B+; 70-74 = B; 65-69 = C+; 55-64 = C; 50-54 = D; < 50 = F.

NOTE: The numeric boundaries separating letter grades may be adjusted at the

request of the Departmental Review Committee.

REQUIRED TEXTBOOK: Earth's Climate: *Past and Future* (Third Edition, W.F. Ruddiman)

TOPICS FOR DISCUSSION: The following table outlines the topics to be discussed during the lectures. The order of presentation is subject to change as circumstances dictate and all the topics listed may not be covered.

Weeks 1, 2	Quaternary Intro; Climate archives, data, models	56-81
Weeks 3	Astronomical Control of Solar Radiation	159-176
Weeks 3	Insolation of Ice Sheets	195-214
Weeks 4	Orbital-Scale Changes in CO ₂ and CH ₄	215-228
Week 5	Orbital Scale Interactions	233-252
Week 9	Earth's climate system; The Last Glacial Maximum	253-272
Week 10	Climate During and Since the Last Deglaciation	273-294
Week 11	Humans and Preindustrial Climate	317-334
Week 12	Climate During the Last 1000 Years	335-356

Assignment Submissions: The assigned paper must be typed and follow the guidelines as set forth in the instructions provided (Tues. Sept. 28, 2021).

Late Penalties: The paper is due on Tues. Dec. 7, 2021. Late penalties are assessed at **10% per day**. The weekend counts as 1 day.

OTHER INFORMATION:

When it is necessary to cancel a class due to exceptional circumstances, I will make every effort to inform students via uwinnipeg email (and/or using the preferred form of communication, as designated in this outline).

Students are reminded that they have a responsibility to regularly check their uwinnipeg e-mail addresses to ensure timely receipt of correspondence from the University and/or their course instructors.

Please note that withdrawing before the VW date does not necessarily result in a fee refund.

A permitted or necessary change in mode of delivery may require adjustments to important aspects of course outlines, like class schedule and the number, nature, and weighting of assignments and/or exams.

Students can find answers to frequently asked questions related to remote learning here: <https://www.uwinnipeg.ca/covid-19/remote-learning-faq.html>.

Regulations, Policies, and Academic Integrity: Students are encouraged to familiarize themselves with the “Regulations and Policies” found in the University Academic Calendar at:

<https://uwinnipeg.ca/academics/calendar/docs/regulationsandpolicies.pdf>.

Particular attention should be given to subsections 8 (“Student Discipline”), 9 (“Senate Appeals”), and 10 (“Grade Appeals”).

Please familiarize yourself on the importance of maintaining academic integrity, and of the potential consequences of engaging in plagiarism, cheating, and other forms of academic misconduct. Even “unintentional” plagiarism, as described in the UW Library video tutorial “**Avoiding Plagiarism**”

(<https://www.youtube.com/watch?v=UvFdxRU9a8g>) is a form of academic misconduct.

Uploading essays and other assignments to essay vendor or trader sites (filesharing sites that are known providers of essays for use by others who submit them to instructors as their own work) is a form of misconduct, as it involves “aiding and abetting” plagiarism. More detailed information can be found here: **Academic Misconduct Policy and Procedures:**

<https://www.uwinnipeg.ca/institutional-analysis/docs/policies/academic-misconduct-policy.pdf> and <https://www.uwinnipeg.ca/institutional-analysis/docs/policies/academic-misconduct-procedures.pdf>.

Avoiding Copyright Violation. Course materials are owned by the instructor who developed them. Examples of such materials are course outlines, assignment descriptions, lecture notes, test questions, and presentation slides. Students who upload these materials to file-sharing sites, or in any other way share these materials with others outside the class without prior permission of the instructor/presenter, are in violation of copyright law and University policy. Students must also seek prior permission of the instructor /presenter before photographing or recording slides, presentations, lectures, and notes on the board.

Research Ethics. Students conducting research interviews, focus groups, surveys, or any other method of collecting data from any person, including a family member, must obtain research ethics approval before commencing data collection. Exceptions are research activities done in class as a learning exercise. For submission requirements and deadlines, see <http://www.uwinnipeg.ca/research/human-ethics.html>

Accessibility Services: Students with documented disabilities, temporary or chronic conditions, requiring academic accommodations for tests/exams (e.g., private space) or during lectures/laboratories (e.g., access to volunteer note-

takers) are encouraged to contact the Accessibility Services (AS) at 204-786-9771 or contact <http://www.uwinnipeg.ca/accessibility-services/index.html> and accessibility@uwinnipeg.ca. All information about a student's disability or medical condition remains confidential.

Indigenous Student Services: Indigenous students seeking additional supports, academic or other, are encouraged to contact the Aboriginal Student Services Centre (ASSC). The ASSC offers a variety of support services, and was created to maintain a safe, educational and culturally sensitive environment for all Aboriginal students (First Nation, Metis and Inuit) as they pursue their academic studies at The University of Winnipeg. More information can be found at: <http://www.uwinnipeg.ca/assc/>.

Students may be required to provide identification when writing a test or an examination.

Equipment authorized for use during a test/examination: calculators, dictionaries.

NEXUS: Additional materials related to this course will be available on Nexus. Students are expected to log on to Nexus to access all relevant course materials. If you are having difficulties with Nexus contact the help desk at 204-786-9149 or help.desk@uwinnipeg.ca.

Students may choose not to attend classes or write examinations on holy days of their religion, but they must **notify their instructors at least one week in advance**. Instructors will then provide opportunity for students to make up work examinations without penalty. A list of religious holidays can be found in the 2020-21 Undergraduate Academic Calendar.

In the event of extenuating circumstances, I reserve the right to make changes to any information presented in this document, after consulting with, or with the approval of, the class. Changes in test dates require the unanimous approval of the class.

Respectful Learning Environment. Students are expected to conduct themselves in a respectful manner on campus and in the learning environment irrespective of platform being used. Behaviour, communication, or acts that are inconsistent with a number of UW policies (e.g. *Respectful Working and Learning Environment Policy* <https://www.uwinnipeg.ca/respect/respect-policy.html>, *Acceptable Use of Information Technology Policy* <https://www.uwinnipeg.ca/institutional-analysis/docs/policies/acceptable-use-of-information-technology-policy.pdf>) could be considered “non-academic” misconduct. More detailed information can be found here: *Non-Academic Misconduct Policy and Procedures*: <https://www.uwinnipeg.ca/institutional-analysis/docs/student-non-academic->

[misconduct-policy.pdf](#) and <https://www.uwinnipeg.ca/institutional-analysis/docs/student-non-academic-misconduct-procedures.pdf>.

Privacy. Students should be reminded of their rights in relation to the collecting of personal data by the University (<https://www.uwinnipeg.ca/privacy/admissions-privacy-notice.html>), especially if Zoom is being used for remote teaching (<https://www.uwinnipeg.ca/privacy/zoom-privacy-notice.html>) and testing/proctoring (<https://www.uwinnipeg.ca/privacy/zoom-test-and-exam-proctoring.html>).