

GEOG 102: Earth From Above (Winter 2024; last updated 2 Jan 2024)

Instructor	Dr. Joseph Shea (joseph.shea@unbc.ca), Office 8-212
Drop-in Hours (8-212/online)	Wednesdays from 09:00 – 10:00, or by appointment.
Lectures (in-person/realtime)	Mondays and Wednesdays, 14:30 - 15:50, Room 8-164
Lecture Zoom link	https://unbc.zoom.us/j/62146891567?pwd=WXRKS2tqQjJJeTI5bFJ3TzdRbzYrQT09 Meeting ID: 621 4689 1567 Passcode: 440233
Teaching Assistants:	Sara Darychuk, (darychuk@unbc.ca), online (Zoom/Teams). Drop-in hour: Thursdays from 14:30 - 15:30, or by appointment Temitope Olufemie, (olufemi@unbc.ca), in-person or online (Zoom/Teams) Drop-in hour: TBD, or by appointment

Course Description: A truly unique human characteristic is our ability to see our planet from different angles and perspectives. Viewed from above with the remarkable observations available from satellites, airplanes, and unmanned air vehicles, this course will focus on patterns, processes, systems, and human/environmental change. Broad topics of study include water, earth, ice, air, human activity, and natural hazards. Students will explore freely available satellite imagery and detailed spatial data through lectures and in-class assignments.

Objectives: The purpose of this course is to provide students with a broad overview of the fundamental concepts of physical geography, and to demonstrate the use of remotely sensed data across related disciplines. By the end of this course, successful students will:

- Be familiar with the basic elements of remote sensing technologies
- Be able to describe earth surface systems and processes, and understand the links between the atmosphere, hydrosphere, cryosphere, lithosphere, and biosphere
- Cultivate a sense of curiosity about the physical world around them, and learn how to use freely available tools to explore Earth surface patterns, processes, and changes.

Required Text: Paperback and loose-leaf versions of *Introducing Physical Geography*, 6th edition (A. Strahler) will be available in the bookstore. E-book versions can be rented/purchased from the publisher (www.wiley.com). Individual chapters can be downloaded from the e-book held in the UNBC library: <https://unbc.on.worldcat.org/oclc/828091953>. You will need to be on-campus or logged in through the university VPN to access this resource. Please make sure you log off once you are finished using the e-book so others can access the resource.

Course Content (lecture slides and videos): <https://jmshea.opened.ca/geog-102/>

Course Website (assignments, quizzes): MOODLE

Announcements: Please check your UNBC email regularly for announcements. Announcements will also appear on Moodle.

How this course will run:

- **This is a hybrid course. Lectures** are in-person, but also online (realtime/synchronous, and recorded and posted). Slides will be available as PDFs (<https://jmshea.opened.ca/geog-102/geog-102-lectures>) prior to the start of each lecture. Lectures will be recorded (audio and slides), and will be posted shortly after each lecture.
- **Lectures** will also include short breakout sessions (in-person or on the live zoom) where students will be asked to find a news story, or a place in Google Earth, or a song related to the topic of the day. Or something else! Asynchronous students can join via the discussion forum. There may be Easter Eggs hidden through the course materials: as a first test, send me an email with your funniest meme, and I'll post the winner (the one that makes me laugh loudest) in lecture.
- **Assignments** will be led by your TAs during lecture periods (normally Wednesdays), and through the same zoom link used for lectures. These will also be recorded and uploaded to the course website.
- **Kahoots** are short *unmarked* quizzes held during the lecture periods, and are designed to steer you in the right direction for studying, and to have some fun. Install the Kahoot app on your mobile device, or use your browser (instructions will be provided in class). Kahoots will also be available outside the lecture period, prior to the quiz.
- **Quizzes:** quizzes are (a) timed - 45 minutes long, (b) open book, and (c) available during a specified 48-hour window (normally Wednesdays at 4pm to Fridays at 4pm). There will be no proctoring software or video requirements. If you are unable to write a quiz during the lab period due to illness or absence, please do your absolute best to let me know beforehand.
- **Discussion Forum:** The Moodle discussion forum will be moderated by your instructor and your TAs. Feel free to ask (and answer) questions related to the syllabus, the course material, and the assignments. Post any geography news items and links that you come across. Keep it clean and supportive!

Course Evaluation:

Assignments (Four @ 5% each)	20%
Quizzes (Four @ 10% each)	40%
Final Exam (take home, 24H)	30%
Course Reflection	10%
Total:	100%

Course Schedule:

Week	Dates	Topics/Readings	Quiz/Kahoot/Assignment
1	Jan 3	<ul style="list-style-type: none"> • Introduction • The View From Above 	Introduction/Icebreaker
2	Jan 8 - 10	<ul style="list-style-type: none"> • Our Rotating Planet (Ch. 1) • Global energy balance (Ch.2) 	Assignment #1: Google Earth Demo Due Sunday January 14 @ 11:59 pm
3	Jan 15 - 17	<ul style="list-style-type: none"> • Air Temperature (Ch. 3, p. 82 - 100) • Atmospheric Moisture (Ch. 4, p. 114 - 126) 	Kahoot (Wed 17 Jan) Quiz #1 (Weeks 1 - 3)
4	Jan 22 - 24	<ul style="list-style-type: none"> • Precipitation and Air Pollution (Ch. 4, p. 128-140 and p. 143-145) • Winds and Global Circulation (Ch. 5) 	
5	Jan 29 - 31	<ul style="list-style-type: none"> • Weather Systems (Ch. 6, p. 187-202, p. 211-213) • Guest lecture: Remote Sensing of Snow 	Assignment #2: Who'll Stop The Rain Due Sunday February 4 @ 11:59 pm

6	Feb 5 - 7	<ul style="list-style-type: none"> Earth Materials and Plate Tectonics (Ch. 11) 	Kahoot (Wed 7 Feb) Quiz #2 (Weeks 4 - 6)
7	Feb 12 - 14	<ul style="list-style-type: none"> Volcanoes and Earthquakes (Ch. 12) 	
8	Feb 19 - 21	<ul style="list-style-type: none"> READING WEEK 	
9	Feb 26 - 28	<ul style="list-style-type: none"> Mass Wasting (Ch. 13) Biogeography (Ch. 8, briefly, Ch. 9 p. 334-339) 	Assignment #3: Earth Surface/Hazards Due Sunday Mar 3 @ 11:59 pm
10	Mar 4 - 6	<ul style="list-style-type: none"> Soils (Ch. 10, p. 342 - 357) Freshwater (Ch. 14) 	Kahoot (Wed 6 Mar) Quiz #3 (Weeks 7 - 10)
11	Mar 11 - 13	<ul style="list-style-type: none"> Landforms made by water (Ch. 15) 	
12	Mar 18 - 20	<ul style="list-style-type: none"> Landforms made by waves and wind (Ch. 16) 	Assignment #4: Freshwater/Landforms Due Sunday Mar 24 @ 4:00 pm
13	Mar 25 - 27	<ul style="list-style-type: none"> Permafrost, ice sheets, sea ice (Ch. 17) 	
14	Apr 1 - 3	<ul style="list-style-type: none"> Global climate change Shane Creek Field Trip (optional) 	Kahoot (Wed 27 Mar) Quiz #4 (Weeks 11 - 13)
15	Apr 8	<ul style="list-style-type: none"> Final Review / AMA 	Final Reflection Paper Due Sunday Apr 7 @ 11:59 pm
15	Apr 10 - 20	<ul style="list-style-type: none"> Take Home Final Exam (scheduled by Registrar) 	

Access Resource Centre: The Access Resource Centre (ARC) provides service to students with documented disabilities or health conditions, ranging from permanent to temporary, including but not limited to mental health disabilities, learning disabilities and attention deficit disorders, chronic health issues, brain injury, hearing and visual impairments, mobility and other physical disabilities. ARC staff are available by appointment to assess specific needs, provide referrals, and arrange appropriate accommodations to assist students in achieving their academic goals. Students who may have a need for special accommodation are encouraged to contact ARC by email at arc@unbc.ca or by phone 250-960-5682. For more information, please visit www.unbc.ca/arc.

Academic Advising: For academic advising please contact the Recruitment and Advising Centre Room by email: advising@unbc.ca or phone 250-960-6494.

Academic Success: The Academic Success Centre (www.unbc.ca/asc) is committed to supporting and enhancing student learning and to providing the skills students will need to become life-long learners. Services and support include: tutoring (online or in person); handouts and downloads on writing and referencing; study assistance; and more.

Personal Success and Mental Health: Please take care of yourselves physically and mentally during the semester. Give yourself proper breaks from lectures and studying. Get outside, try to eat well, and connect with your family and friends. Reach out to professionals if you need additional support: the UNBC Wellness Centre (<https://www.unbc.ca/wellness-centre>) offers counselling services and urgent help, and there are two provincial mental health hotlines: Northern BC: 250-563-1214 and all of BC: 310-6789 (no area code required)

Student Rights and Responsibilities: <https://www2.unbc.ca/policy/students-rights-and-responsibilities>