GEOGRAPHY FINAL COURSE OUTLINE:

GEOGRAPHY 587
GFC HOURS (3-2)

Geospatial Project Management

Section	Location	Meeting Time	Meeting Day
LEC 01	Web Based Course	14:00 -16:45	Synchronous sessions on March 18, 25, April 1, 8 and 15
LAB 01	Web Based Course	N/A	None – all asynchronous

Instructor: Geoff Hay	Office: ES 304
Telephone: 403 229 4768	Email: gjhay@ucalgary.ca

Official Course Description
Capstone course applying the broad methodological training from GIS, remote sensing, cartography, qualitative and quantitative methods. Collaborative research and project management is stressed.

Course Objectives
To introduce students to fundamental project management techniques and related software to support students as they develop a Geomatics based final project. This project will require students to research and create a new (to them) Geomatics product, and/or service with real-world business applications/potential. Students will be guided to develop and present their ideas (to the class) as if they were presenting to their employee supervisor.

Course Learning Outcomes
The Department of Geography is committed to student knowledge and skill development. The table below lists the key learning outcomes for this course, the program-learning outcomes to which they contribute, and the expected level of achievement.

Course learning outcomes	PLO(s)*	Level(s)**
Perform labs to learn software used in project management	2-8	2, 3
Explore fundamental topics in project management	1, 2, 4	1, 2
Review fundamental/advanced topics in remote sensing	1, 2, 4	2, 3
Explore leading remote sensing literature	4, 5, 7, 8	2, 3
Develop project management skills	1, 2, 4, 5, 7, 8	1, 2
Participate in class presentations, evaluation and assessments	1, 2, 4, 5, 7, 8	2, 3
Practice public presentation skills	1, 2, 4, 5, 7, 8	2, 3
Lead seminar presentation on your own topic of interest	1, 2, 4, 5, 7, 8	2, 3
Participate in industry and research-based guest lectures	1, 5	2, 3
Write technical report using standard formats and citation standards	8, 8	2, 3

***PLOs = Program Learning Outcomes:** 1 = reflect and communicate diverse human-environment perspectives, 2 = identify and explain human-environment processes, 3 = implement sampling, data collection, analyses and communication methods, 4 = analyze spatial and temporal aspects of human-environment systems, 5 = employ knowledge, arguments, and methodologies for solving human-environment problems, 6 = evaluate geospatial data and manipulate it to create cartographic products, 7 = communicate geographic concepts using oral, written, graphic, and cartographic modes, and 8 = demonstrate literacy skills.*
***Levels:** 1 = Introductory, 2 = Intermediate, and 3 = Advanced.*

Prerequisites
3 units from Geography 333, 339, 357, 437, 480, 482, 484, 485. **Note**: background experience in digital remote sensing, GIS, spatial analysis, digital image processing and basic computer programming would be advantageous.

Learning Resources
No textbook is required for this course. The Internet will serve as an invaluable resource for information in this course; published peer-reviewed journal articles will form the bulk of the sources for topics. There are, however, several recommended textbooks that make for good general reference material. It would be advantageous for students to own, or gain access to one or more of the following texts:

Highly recommended:
- Fundamentals of Remote Sensing- eBook. Canada Center for Remote Sensing. 268 pages. https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/earthsciences/pdf/resource/tutor/fundam/pdf/fundamentals_e.pdf (Free download).
- Jensen, J. R., 2015: Introductory Digital Image Processing: A Remote Sensing Perspective. Prentice Hall. 4th Edition. pp 623.
- Northey, M. and D.B. Knight, 2012: Making Sense, A Student's Guide to Research and Writing in Geography and Environmental Sciences, Fifth Edition. Oxford University Press.

Learning Technologies and Requirements
In order to successfully engage in their learning experiences at the University of Calgary, students taking online, remote and blended courses are required to have reliable access to the following technology:

• A computer with a supported operating system, as well as the latest security and malware updates
• A current and updated web browser
• Webcam (built in or external)
• Microphone and speaker (built-in or external) or headset with microphone
• Broadband internet connection

Grading (Weighting)

1.	Lab assignment	20%
2.	TOI Term Project	
	a. Project Proposal	5%
	b. Elevator Pitch	5%
	c. Project Presentation	25%
	d. Project Paper (25p)	35%
3.	Class participation	10%

There is no final examination for this course, and it is not necessary to pass each course component in order to pass the course as a whole.

The schedule for the lab assignments and Term Project components will be posted to the course web page on the university's Desire2Learn (D2L) system and will be tailored based on class size. Deadlines for assigned work are firm, and late submissions are not accepted (unless arrangements have been previously made with the TA/Instructor).

The only acceptable reasons for missing an examination or assignment in this class, as listed in the Deferral of Final Examinations section of the University of Calgary Calendar are illness, domestic affliction, or religious conviction. If you miss an assignment or examination, and you provide me with a valid excuse, you will have one opportunity to make arrangements for the missed work. Without contacting me and providing a valid excuse, you will receive a zero for that portion of your grade.

If you know in advance that you will be away, or require an extension, please contact me before the due date as arrangements need to be made with TA's. If students abuse this opportunity, they will be referred to the Associate Dean's office.

Grading System

96 – 100	A+	77 – 80	B	59 – 61	C-
90 – 95	A	71 – 76	B-	55 – 58	D+
86 – 89	A-	65 – 70	C+	50 – 54	D
81 – 85	B+	62 – 64	C	0 – 49	F

Exams
There will be no exams in this course.

Supplementary Fees
While no supplementary fees are assessed for this course, students should note, that they will be instructed using free versions of specific software available online (i.e., XMind, Slack and Asana). Though sufficient for the course requirements, these free software versions have limited capabilities. Consequently, students may want to purchase more complete versions that can range from monthly subscriptions to full software packages costing $100+. For some of these software, student discounts are available, and or free and open source fully functional alternatives can be found such as Freemind.

For additional detailed course information posted by the instructor, visit the course Desire2Learn page online at https://d2l.ucalgary.ca/d2l/home.

SUPPLEMENTAL INFORMATION

Principles of Conduct
The University Calendar includes a statement on the principles of conduct expected of all members of the university community (including students, faculty, administrators, any category of staff, practicum supervisors, and volunteers), whether on or off university property. This statement applies in all situations where members of the university community are acting in their university capacities. All members of the university community have a responsibility to familiarize themselves with the principles of conduct statement, which is available at: www.ucalgary.ca/pubs/calendar/current/k.html.

Plagiarism, Cheating, and Student Misconduct
The University of Calgary is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect.

Academic dishonesty is not an acceptable activity at the University of Calgary, and students are **strongly advised** to read the Student Misconduct section in the University Calendar at: www.ucalgary.ca/pubs/calendar/current/k-3.html. Often, students are unaware of what constitutes academic dishonesty or plagiarism. The most common are (1) presenting another student's work as your own, (2) presenting an author's work or ideas as your own without adequate citation, and (3) using work

completed for another course. Such activities will not be tolerated in this course, and students suspected of academic misconduct will be dealt with according to the procedures outlined in the calendar at: https://ucalgary.ca/policies/files/policies/student-academic-misconduct-procedure.pdf

Instructor Intellectual Property
Information on Instructor Intellectual Property can be found at https://www.ucalgary.ca/policies/files/policies/Intellectual%20Property%20Policy.pdf

Freedom of Information and Protection of Privacy
Freedom of Information and Protection of Privacy (FOIP) legislation in Alberta disallows the practice of having students retrieve assignments from a public place, such as outside an instructor's office, the department office, etc. Term assignments will be returned to students individually, during class or during the instructor's office hours; if students are unable to pick up their assignments from the instructor, they must provide the instructor with a stamped, self-addressed envelope to be used for the return of the assignment.

Human subjects
Students in this course will not be expected to participate as subjects or researchers when research on human subjects may take place.

Guidelines for Zoom Sessions
Zoom is a video conferencing program that will allow us to meet at specific times for a "live" video conference, so that we can have the opportunity to meet each other virtually and discuss relevant course topics as a learning community.

To help ensure Zoom sessions are private, do not share Zoom link or password with others, or on any social media platforms. Zoom links and passwords are only intended for students registered in the course. Zoom recordings and materials presented in Zoom, including any teaching materials, must not be shared, distributed or published without the instructor's permission.

The use of video conferencing programs relies on participants to act ethically, honestly and with integrity; and in accordance with the principles of fairness, good faith and respect (as per the Code of Conduct). When entering Zoom or other video conferencing sessions (such as MS Teams), you play a role in helping create an effective, safe and respectful learning environment. Please be mindful of how your behavior in these sessions may affect others. Participants are required to us names officially associated with their UCID (legal or preferred names listed in the Student Centre) when engaging in these activities. Instructors/moderators can remove those whose names do not appear on class rosters. Non-compliance may be investigated under relevant University of Calgary conduct policies (e.g. Student Non Academic Misconduct Policy). If participants have difficulties complying with this requirement, they should email the instructor of the class explaining why, so the instructor may consider whether to grant an exception, and on what terms. For more information on how to get the most out of your Zoom sessions visit: https://elearn.ucalgary.ca/guidelines-for-zoom/.

If you are unable to attend a Zoom session, please contact your instructor to arrange an alternative activity for the missed session (e.g., to review a recorded session). Please be prepared, as best as you are able, to join class in a quiet space that will allow you to be fully present and engaged in Zoom sessions. Students will be advised by their instructor when they are expected to turn on their webcam (for group work, presentations, etc.).

The instructor may record online Zoom class sessions for the purposes of supporting student learning in this class – such as making the recording available for review of the session or for students who miss a session. Students will be advised before the instructor initiates a recording of a Zoom session. These

recordings will be used to support student learning only and will not be shared or used for any other purpose.

Posting of Grades and Picking-up of Assignments
Graded assignments will be made available electronically through the course D2L webpage. Grades and assignments will not be available at the Department of Geography main office.

Academic Accommodations
It is the student's responsibility to request academic accommodations, according to the university policies and procedures listed in the University Calendar.

The student accommodation policy can be found at:
https://www.ucalgary.ca/policies/files/policies/student-accommodation-policy_0.pdf
Students needing an accommodation because of a disability or medical condition should communicate this need to Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities: www.ucalgary.ca/policies/files/policies/student-accommodation-policy.pdf.

Students needing an accommodation based on a protected ground other than disability should communicate this need, preferably in writing to their instructor or the Department Head (email: david.goldblum@ucalgary.ca).

Copyright Legislation
All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright https://www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright-policy.pdf
and requirements of the copyright act (https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html) to ensure they are aware of the consequences of unauthorised sharing of course materials (including instructor notes, electronic versions of textbooks etc.). Students who use material protected by copyright in violation of this policy may be disciplines under the Non-Academic Misconduct Act.

Wellness and Mental Health Resources
The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness, and academic success and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the mental health resources available throughout the university community, such as counselling, self-help resources, peer support, or skills-building available through the SU Wellness Centre (Room 370, MacEwan Student Centre, https://www.ucalgary.ca/wellnesscentre/services/mental-health-services) and the Campus Mental Health Strategy website (http://www.ucalgary.ca/mentalhealth/).

Contact Information for Student and Faculty Representation
- Student Union VP Academic 403-220-3911, suvpaca@ucalgary.ca
- Students Union Representatives for the Faculty of Arts – 403-220-3913, arts1@su.ucalgary.ca, arts2@su.ucalgary.ca, arts3@su.ucalgary.ca, arts4@su.ucalgary.ca
- Student Ombuds Office information can be found at: www.ucalgary.ca/ombuds/

Campus Safewalk
Campus Security, in partnership with the Students' Union, provides the Safewalk service, 24 hours a day, to any location on Campus, including the LRT station, parking lots, bus zones, and university residences. Contact Campus Security at 220-5333 or use a help phone, and Safewalkers or a Campus Security officer will accompany you to your campus destination.