**The University of Winnipeg**
**Department of Geography**
**GEOG-1305-001: Mapping in a Global World**
**Fall 2023 – Asynchronous**
**GRADED COMPONENTS TO BE DONE IN SET TIME PERIODS!!**

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**Instructors:** Dr. Joni Storie/Dr. Chris Storie/Dr. Ed Cloutis
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**Office:** Virtual
**Office Hours:** Virtual meeting upon email request (between 9:00 am to 5:00 pm Winnipeg Central Time).

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**Please note when corresponding with the instructor, use your University of Winnipeg email account system: name@webmail.uwinnipeg.ca. Emails from accounts such as Hotmail or Gmail are frequently treated as spam and thus may not reach the recipient.*

**Course Description**

*GEOG-1305(3) Mapping in a Global World (Le3)*

This course introduces fundamental concepts and emerging trends in geomatics, geospatial data science and statistical techniques for human, environmental, and socio-economic impacts. It provides an overview of the geospatial industry and introduction to cross-disciplinary tools and techniques for accessing, visualizing, and analyzing geospatial data (i.e., GPS, satellite imagery, UAV or drones, GIS, and Google Maps). Also, there will be discussions on the issues and foundations of modern digital cartography including map projections, mapping quantitative data, online maps, and the impact of maps on society.

**Open Source (free) Text – recommended:**

Tiberius, C. C. J. M., van der Marel, H., Reudink, R. H. C., & van Leijen, F. J. (2021). Surveying and Mapping. TU Delft Open. Delft University of Technology, The Netherlands.

Campbell, J. E., & Shin, M. (2011). Essentials of geographic information systems. https://saylordotorg.github.io/text_essentials-of-geographic-information-systems/ .

Manson, S. (2017). Mapping, Society, and Technology. University of Minnesota Libraries Publishing. Minneapolis, MN.

**Course Objectives**

The primary learning objective for the students in this course is to gain knowledge about how maps and spatial statistics are used in daily life, government and business decision making and in academic research. Additionally, the students will also learn about careers that use these geospatial skills. The students will be introduced to different facets of geomatics (cartography, GIS, remote sensing, etc.) and apply these concepts during in-class exercises (i.e., explore issues, evaluate geographic and spatial situations). Learning outcomes include the ability to describe and identify geospatial technologies, interdisciplinary applications and availability of open-source spatial data, and to develop basic map and visualization creations.

**NEXUS**

Documents related to this course (e.g., course syllabus, project guidelines, supplemental readings, report grading criteria) will be made available to students through the Nexus system. You must be registered in the course to have access to these materials. To login for Nexus, go to: https://nexus.uwinnipeg.ca/. If you encounter difficulties with Nexus contact the help desk at 204-786-9149 or help.desk@uwinnipeg.ca.

This course is offered online and is asynchronous delivery (pre-recorded lectures). The asynchronous nature will include lectures and exams.

| Student Evaluation Date Due | Assessment Description | Marks |
|---|---|---|
| Week of September 18th -22nd | Test 1 (Chris Storie – Cartography; multiple choice, short answer) | 20% |
| Week of October 23rd – 26th | Case Study (Ed Cloutis – GIS) | 35% |
| Week of November 13th – 17th | Geomatics Lab Report (Joni Storie – Remote sensing) | 35% |
| Week of November 27th – Dec 1st | Test 2 (Chris Storie – UAV/Drones, multiple choice, short answer) | 20% |
| Total | | 100% |

The final date to withdraw from the course without academic penalty is 13 November 2023. Please note that withdrawing before the VW date does not necessarily result in a fee refund.

**University Dates of Significance:**

| Date | Significance |
|---|---|
| Sept 5 | LECTURES BEGIN for Undergraduate fall term. |
| Sept 30 | Truth and Reconciliation Day: University closed |
| Oct 9-13 | Reading Week (no classes) |
| Nov 11 | REMEMBRANCE DAY: University closed |
| Nov 13 | FINAL DATE to withdraw without academic penalty from courses which begin in September and end in December of the 2023 Fall Term |
| Dec 4 | LECTURES END for the 2023 Fall Term |
| Dec 7 - 20 | Exam period |

**Graded Components – all assessments should reflect the language and materials presented in this course.**

Cartography and Drone tests will be multiple choice and short-answer format, completed in Nexus, and based on material covered prior to the test, (i.e., Test 1 on Cartography materials). The test MUST be completed within the time frame set by the faculty member (TBD in class). The tests will be online, questions randomized, and a time period identified that students must complete the test within that period. Thus students need to keep up with materials for Module 1: Cartography which will have a test at the end of the module, etc.

The mark in the GIS portion of this course (35%) will consist of a written report that involves developing a GIS-based approach and solution to a "real-world" problem. The remote sensing graded component will be a Geomatics Lab Report (35%) based on a peer reviewed journal article and lecture content.

| Week | Date | Lecture Hours | Faculty/Responsibility |
|---|---|---|---|
| 1 | September 5-8 | 1 | Dr. Joni Storie (Introduction to course expectations) |
| 1 | September 5-8 | 2 | Dr. Chris Storie (What is cartography?) |
| 2 | September 11-15 | 3 | Dr. Chris Storie (The History and Evolution of Cartography) |
| 3 | September 18-22 | 2 | Dr. Chris Storie (Maps in the Modern Day)<br>**(Test 1 - 20%; multiple choice, short answer)** |
| 4 | September 25-29 | 3 | Dr. Ed Cloutis GIS – see note below** |
| 6 | October 9-13 | - | Reading week |
| 7 | October 16-20 | 3 | Dr. Ed Cloutis GIS – see note below** |
| 8 | October 23-26 | 3 | Dr. Ed Cloutis GIS – see note below**<br>**(Case study 35%)** |
| 9 | October 30 – November 3 | 3 | Dr. Joni Storie (Remote Sensing - theory and technological history) |
| 10 | November 6-10 | 3 | Dr. Joni Storie (Remote Sensing – image creation, measuring & recording, resolutions) |
| 11 | November 13-17 | 3 | Dr. Joni Storie (Remote Sensing – image creation, measuring & recording, resolutions continued) **(Geomatics Lab Report 35%)** |
| 12 | November 20-24 | 3 | Dr. Chris Storie (An Introduction to Drone Remote Sensing) |
| 13 | November 27-December 1 | 3 | Dr. Chris Storie (Capturing the Ground using a Drone) **(Test 2 - 20% - 30 multiple choice, short answer)** |

****Ed Cloutis GIS Lectures from September 25th to October 28th**

Campbell, J. E., & Shin, M. (2011). Essentials of geographic information systems. https://saylordotorg.github.io/text_essentials-of-geographic-information-systems/ .

1. Intro to GIS (Chapters 1 and 2)
2. Data – finding, types (Chapters 3, 5)
3. Raster/vector (Chapter 4)
4. Remote sensing (Chapter 4.3)
5. Data analysis (Chapter 6)
6. Data analysis (Chapters 7, 8)
7. Case study 1
8. Case study 2
9. Case study 3

These lectures will be supplemented by a number of GIS-related videos and discussions of GIS case studies.

**Grading**

The University does not have a standardized grading scheme. For this course, grade equivalents are as follows:

| | |
|---|---|
| A+ 90-100 % | C+ 65-69.9 % |
| A 86-89.9 % | C 56-64.9% |
| A- 80-85.9% | D 50-55.9 % |
| B+ 75-79.9 % | F less than 50 % |
| B 70-74.9 % | |

The numeric boundaries separating letter grades may be altered at the request of the Department Review Committee or University Senate.

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## Course Rules and Guidelines

1. 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.
2. Students can find answers to updates and frequently asked questions related to COVID-19 here: https://www.uwinnipeg.ca/covid-19/index.html .
3. When it is necessary to **cancel a class** due to exceptional circumstances, I will make every effort to inform students via **uwinnipeg** email (or NEXUS), as well as the Departmental Assistant and Chair/Dean so that class cancellation forms can be posted outside classrooms. ***Students have the responsibility to regularly check their University of Winnipeg e-mail*** addresses to ensure timely receipt of correspondence from the University and/or their course instructors.
4. Please note that **withdrawing** before the VW date does not necessarily result in a fee refund.
5. Students with documented disabilities, temporary or chronic medical conditions, requiring **academic accommodations** for tests/exams or during lectures/laboratories are encouraged to contact Accessibility

Services (AS) at 204.786.9771 or https://www.uwinnipeg.ca/accessibility-services/ to discuss appropriate options. All information about a student's disability or medical condition remains confidential.

6. Reference to the appropriate items in the Regulations & Policies section of the Course Calendar, including Senate **appeals and academic misconduct** (e.g. plagiarism, cheating) https://www.uwinnipeg.ca/academics/calendar/docs/regulationsandpolicies.pdf Instructors should become familiar with the procedures for dealing with alleged academic misconduct at https://www.uwinnipeg.ca/institutional-analysis/docs/policies/academic-misconduct-procedures.pdf
7. **Avoiding Academic and Non-academic Misconduct**. Students are encouraged to familiarize themselves with the Regulations and Policies found in the University Academic Calendar at https://www.uwinnipeg.ca/academics/calendar/docs/regulationsandpolicies.pdf . Particular attention should be given to subsections 8 (Student Discipline), 9 (Senate Appeals), and 10 (Grade Appeals).
   It cannot be stressed enough the importance of maintaining academic integrity and the potential consequences or engaging in plagiarism, cheating and other forms can be quite severe. 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.
   Similarly, 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.
   Important information is outlined in the 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.
8. **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 (or equivalent) 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 ).
9. **Misuse of Filesharing Sites**. 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) involves "aiding and abetting" plagiarism. Students who do this can be charged with Academic Misconduct.
10. 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 filesharing 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.
11. **Academic Integrity and AI Text-generating Tools** Students must follow principles of academic integrity (e.g., honesty, respect, fairness, and responsibility) in their use of material obtained through AI text-generating tools (e.g., ChatGPT, Bing, Notion AI). If an instructor prohibits the use of AI tools in a course, students may face an allegation of academic misconduct if using them to do assignments. If AI tools are permitted, students must cite them. According to the MLA (https://style.mla.org/citing-generative-ai/ ), "you should (1). cite a generative AI tool whenever you paraphrase, quote, or incorporate into your own work any content (whether text, image, data, or other) that was created by it; (2). acknowledge all functional uses of the tool (like editing your prose or translating words) in a note, your text, or another suitable location; and (3). take care to vet the secondary sources it cites". If students aren't sure whether or not they can use AI tools, they should ask their professors.
12. **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 .

13. **Respectful Working and Learning Environment Policy.** 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 several UW policies could be considered non-academic misconduct. See the Respectful Working and Learning Environment Policy (https://www.uwinnipeg.ca/respect/respect-policy.html ) and Acceptable Use of Information Technology Policy (https://www.uwinnipeg.ca/institutional-analysis/docs/policies/acceptable-use-of-information-technology-policy.pdf ). More detailed information is outlined in the 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 ).
14. **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/ .
15. **Exam/Test Policies:** As a result of on-line instruction, students may be asked to turn on their camera and show their face alongside their university ID to prove their identity. If exams are in person, students will be required to show their University Issued ID.
16. **Missed Test/Exam Policy:** There are six acceptable excuses for an individual missing an exam or test. They are:
    a. ***Illness***: I will need an official certificate from your doctor verifying that you have a medical condition that precluded you from writing the schedule exam/test. *The note must indicate either the day(s) you were unable to attend class and/or the return to work/school date, not simply the day you were seen by the medical practitioner*. You will also be required, within reason, to notify the instructor as early as possible prior to, or immediately after the scheduled date. An email will suffice.
    b. ***Funeral Attendance***: I will need proof of funeral attendance with the date of the ceremony clearly listed.
    c. ***Mandatory Courtroom Appearance***: I will need a copy of your official court summons with the date of attendance clearly listed.
    d. ***Athletic Participation and other Approved University Activities***: I will need a signed letter from a member of the senior coaching staff, program director, instructor, or other supervisory individuals indicating the day(s) you will be absent.
    e. ***Inclement Weather***: Bad weather happens, if you are held up because of poor travel conditions contact the instructor as soon as possible to make alternate arrangements. In this situation the test/exam will be made-up later the same day or the following day, whenever possible.
    f. ***Religious Holiday*****:** Students may choose not to attend classes or write examinations on holy days of their religion, but they must notify their instructors at least two weeks 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 2020-2021 Undergraduate Academic Calendar. http://uwinnipeg.ca/academics/calendar/docs/important-notes.pdf.
17. In all situations, the makeup test/exam will occur **within 5 school days** of the missed date. In the event of illness this deadline will be **within 5 school days** from the **"return to work"** date noted on the medical certificate. It is the student's responsibility to schedule the makeup exam. Failure to schedule within the defined timeline will result is a grade of zero (0) for that test/exam.

18. Final Exam Deferrals: A legitimate exam conflict is defined as two (2) exams scheduled at the same time. You need to identify early any conflicts that may exist. Conflicts should attempt to be resolved by the student and the instructor(s), if a resolution cannot be reached students must submit the appropriate formal appeal (*http://www.uwinnipeg.ca/index/exam-conflict*). It is the student's responsibility to initiate the resolution of any conflicts. *Personal conflicts such as travel plans, and work schedules do not warrant a change in examination times. The date, time and location of the final exam are contained in this syllabus.*
19. **Late Penalties:** Assignments submitted late (and without a valid excuse) will be assessed a late penalty of 10%/day reduction in grade to a maximum of a 50% reduction whereby the assignment will be awarded a grade of zero (0).
20. **Course Communication:** Students are reminded that only their University of Winnipeg email address will be used for course related correspondence or through the email system on NEXUS. The instructor may not respond to messages that do not originate from either of these sources. Students have the responsibility to regularly check their UWinnipeg e-mail addresses to ensure timely receipt of correspondence from the University and/or their course instructors.
21. **Make-Up or Bonus Work**: There will be NO make-up work or bonus material of any kind.

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