GEOGRAPHY 2211 - MAP AND AIR PHOTO INTERPRETATION
Fall 2018

Instructor:	Dr. Bradley A. Wilson
Office:	RC - 2006A
Email:	bwilson@lakeheadu.ca
Office hours:	Mon: 11:30am - 1:20pm and 3pm – 4:15pm
	Wed: 11:30am - 1:20pm and 3pm – 4:15pm
	Thurs: 10:30am - noon

TEXTBOOKS:	**Suggested:**	How to Lie with Maps, Monmonier Interpretation of Aerial Photographs, Avery & Berlin Goodes World Atlas
CLASS SCHEDULE:	Lectures:	MW, 4:3O – 5:20pm, ATAC - 1007
	Labs:	Mondays, 10:30-12:20 (either RC-2003 or ATAC-3009)
	Lab Instructor:	Jason Freeburn, RC – 2004
GRADING:	*Midterm Exam:	23% **(Wednesday, Oct. 3)**
	*Map Exam:	7% **(Monday, Sept. 24)**
	*Final Exam:	35% (**TBA**)
	**Lab exercises:	35% (11 labs, % varies)

Exams and labs will not only test your knowledge about this subject, but will test your writing and communications skills. Most labs require a <u>typed lab</u> report to be submitted for grading. Your ability to write clearly and concisely will in large part determine your overall mark in this class.

*Absences from illness, compassionate reasons or representing the university off-campus, supported by written documentation, will be accepted as sufficient evidence to allow a rewrite of a missed test or an extension on an assignment. **Missed tests for any other reason, including undocumented illness, may be made up at a date and place to be determined. This test will consist of full-length essay questions and will be tougher than the original**. Extensions will not be allowed for assignments, other than for legitimate reasons supported by written documentation. All other late assignments will lose 10% of the available mark for each day late.

****Please read the rules on plagiarism**, these are online…go to the LU Calendar, then University Regulations, and then to Academic Dishonesty.

COURSE DESCRIPTION:

This techniques course focuses on map reading and interpretation techniques related to air photo acquisition and photogrammetry techniques. Digital cameras, drones, and stereoscopic viewing systems (i.e., virtual reality) are explored through lectures and practical lab exercises. See next page for lecture topics and ***(lab schedules)***.

WEEKLY OUTLINE:

Week#	Lecture Topic	Assigned Reading:
1	Map appreciation ***(no lab)***	
2	Coordinate Systems Map Interpretation ***(Lab 1 Map Interpretation – 3%)***	
3	Map Interpretation ***(Lab 2 Map Interpretation – 4%)***	**Course Website**: How to Lie with Maps, (chapter 3), Monmonier, 1996
4	Colour Theory Digital Camera Systems **MAP EXAM – 7% (Sept. 24)** ***(Lab 3 Four Air Photos – 3%)***	
5	Stereo Vision **MIDTERM EXAM (Oct. 3)** ***(Lab 4 RGB Checker Board – 3%)***	
Reading Week – Oct. 8-12		
6.	Air Photo Acquisition Photogrammetry – Camera Geometry	**Course Website**: Photogrammetry, (chapter 4), Lillisand and Kiefer, 1994
7.	Photogrammetry – Horizontal & Vertical Photogrammetry Parallax ***(Lab 5 Air Photo Mission Planning and Drone Flight Demo – 3%)***	
8.	Photogrammetry (cont.) API Elements ***(Lab 6 Photogrammetry 1 – 4%)***	
9.	Applications in API ***(Lab 7 Photogrammetry 2 – 4%)***	
10.	Applications in API ***(Lab 8 Stereo Photogrammetry – 3%)***	
11.	Applications in API Drone-based Imagery ***(Lab 9 API Rural Landscapes – 4%)***	
12.	Drone Flight Regulations 3D Modelling using Blender ***(Lab 10 API Urban Landscapes – 4%)***	www.blender.org
13.	Exam Review ***(Lab 11 VR Lab Tour (voluntary (0%)))***	