GEOG357 Syllabus Fall 2023

Instructor: Roger Wheate, 8-307, 960-5865; wheate@unbc.ca Lectures: Tuesday/Thursday 10.30-11.20, 8-160 Labs: Wednesdays 15.00-17.50 Date Lecture Topics Lab **Sept 2023** 6-8 Introduction No lab 11-15 Electro-Magnetic Spectrum / Image data-display Lab 1: Image display and DNs 18-22 Unsupervised and supervised classification Lab 2: Unsupervised Classn 25-28 Sensors-platforms / Band ratios Lab 3: Supervised Classn October Indices and Transforms; Lab 4: Ratios and indices 2-6 10-13 Env.Change / Mid-Term Exam (15%) Lab 5: Environmental Change 16-20 Feature extraction / Env. Change demos *Lab 6: Feature extraction* 23-27 Glaciers / Thermal RS Lab 7: Glaciers November (Oct)30-3Change detection / project options Lab 8: Change detection 6-9 DEMs / Microwave - RADAR Lab 9: DEMs 13-17 LiDAR / UAV-LiDAR@UNBC (guest) Lab 10: Projects-data 20-24 High resolution sensors / Planetary RS Lab 11: data processing 27-Dec 1 RS Software -Course review / Exam2 (10%) Lab 12: project write-up Dec 5 Project demos 100% **Evaluation** Exams: Oct 12, Nov 30 + 5% take-home Quiz 30% Environmental Change exercise, Nov 8 10% Article review **Nov 16** 10% Lab exercises 5 x 5% 25% Final project, Dec 7 25%