Lectures  TR 8:30 – 9:45 pm CL 420, Jan 8 to April 13, 2018

Labs  R 14:30-17:15 p.m.  CL 312, Lab Discussion, seminars CL 315 dry lab, CL 322 wet lab

Instructor  Dr. Janis Dale, CW 234.5, 585-4840 Office hours: R 10:00 -12:00, Wed 11:30 – 2:30, or make an appointment

Lab Instructors  Matt Thompson, LB 316. Mike Cloutier LB 420.  Office Hours TBA


Grading  Midterm Exam  20% Tent. Thursday Feb 15th
Final Exam  30% Tuesday April 17, 9:00 am
Term Assignments  25% Five throughout term
Glacial Project  20% To be discussed
Weekly Participation  5%

Course Information
The midterm, term assignments and final exam are considered to be absolute requirements for the course and students will receive a NP if not completed. The final exam is inclusive and covers all materials from the entire course including the term assignments.

The University of Regina promotes a learning environment that is free from all forms of harassment and discrimination. If there is any student in this course who, because of a disability, may have a need for accommodations, please come and discuss this with me, as well as contacting the Coordinator of Special Needs Services at 585-4631. Students are responsible for understanding and following the academic regulations of the university, this includes dates for dropping courses, plagiarism, etc. Please consult your calendar or you can consult with me if you have additional questions.

If you have any questions regarding the course, please ask me!

Course Description
An advanced course on glacial processes, environments and landscapes. Topics cover the physics of glaciers, glacial and periglacial processes and the resulting landforms. Special attention is paid to the Canadian arctic environment and the history of glaciation in Canada, particularly the last glacial episode, Wisconsin in Saskatchewan. Assignments relate to the lecture material and are spread out over the semester. They include map and aerial photo work, lab and field study (if possible) and library research. A list of project topics will be provided and work on them will cover the entire semester. All exam questions will be drawn from lecture, laboratory assignments and reading materials suggested throughout the course, (hint: utilize your textbook!). The final exam will be comprehensive but will concentrate on the second part of the term.

Course Deliverables
By the end of this course you should be able to address the following:

1. Appreciate the importance of glacial processes and deposits in understanding the present physical environments of glaciated terrains;
2. Solid understanding of how the physics of glaciers reflect former environmental and glacier conditions and dictate resulting glacial landscapes;
3. Understand how glaciers, erode, transport and deposit materials;
4. Can identify glacial landforms from aerial photos, maps, sedimentary deposits and explain how they are thought to form.
5. Understand basic periglacial processes and landforms.
GEOLOGY 429 GEOGRAPHY 429
GLACIAL & PERIGLACIAL GEOLOGY
TENTATIVE COURSE OUTLINE & EVENTS

Topics Covered and textbook readings

**Introduction: What is a glacier? Types of Glaciers and Current Glaciers**
Readings: Chapters 1 & 2

**Glacial Ice, Mass Balance and Glaciers on the Move**
Readings: Chapter 3

**Glacial Hydrology: Processes**
Readings: Chapters 4,

**Glacial Erosion: Processes and Landforms**
Readings: Chapter 5

**Meltwater and Glacial Erosion: Processes, Landforms and Landscapes**
Readings: Chapter 6

**Terrestrial Glacial Deposition: Entrainment and Transport**
Readings: Chapter 7

**Terrestrial Glacial Deposition: Tills and Landforms**
Readings: Chapter 8

**Leftovers and Periglacial - time permitting**

Events
Midterm Break – February 19th to 24th 2018
Midterm Exam Tentative Thursday Feb. 15th, Weeks 1 To 6

FINAL EXAM TUESDAY APRIL 17, 2018, 9:00, 3 HOURS Weeks 1 to 15.

Assignments
Tentative Dates, weather dependent
Lab 1 Thurs Jan 11: Assignment 1 Getting into Glaciers and Glacial Environments.
Lab 2 Jan 25: Assignment 2 or 3 Snow Lab (field study) or Glaciers on the Move
Lab 3 Feb 8: Assignment 3 or 2 Glaciers on the Move or Snow Lab (field study)
Lab 4 March 1: Assignment 4 Glacial Deposits and Fabrics
Lab 5 March 15: Assignment 5 Glacial Chronology or Field Trip (weather dependent)

Week 14 –April 5th – Project Presentations in Lab Time

How do we go from the top photo to the bottom photo?