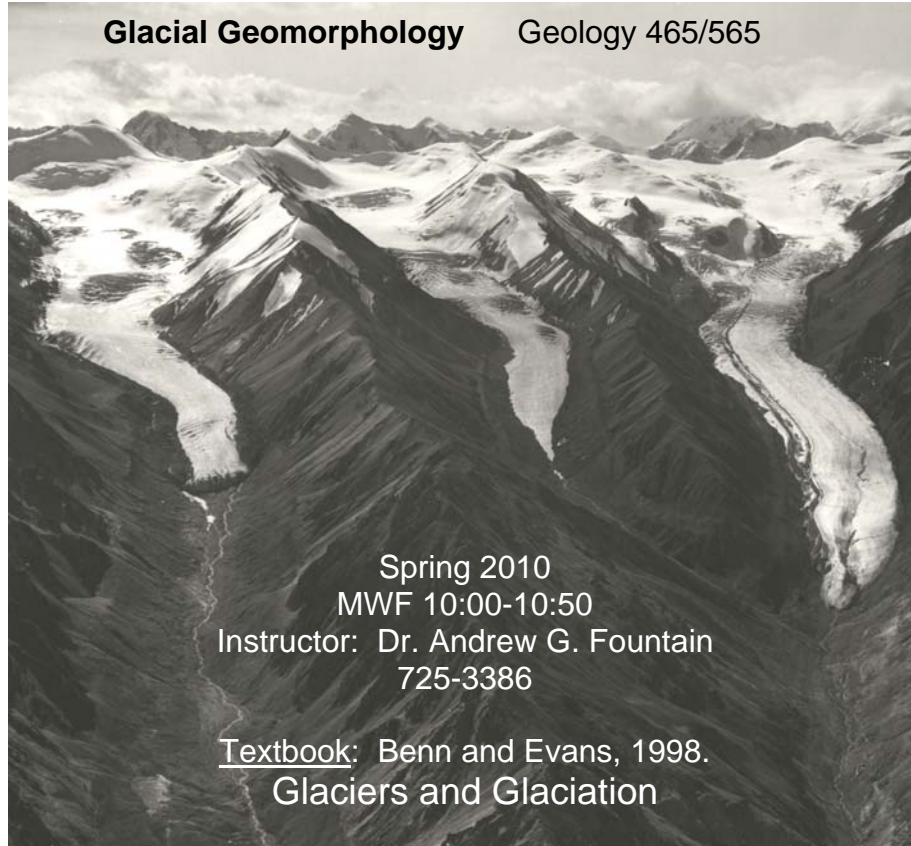


Glacial Geomorphology Geology 465/565



Spring 2010
MWF 10:00-10:50

Instructor: Dr. Andrew G. Fountain
725-3386

Textbook: Benn and Evans, 1998.
Glaciers and Glaciation

Prerequisites: High school math and a 300 level background in science and/or geography are assumed. Familiarity with spreadsheets will be helpful.

Class Outline: The first half of the class will cover glacial formation, evolution, and effect on the landscape. The emphasis will be on alpine glaciers, although the two ice sheets will be discussed. We will examine the physical processes of glacier formation and distribution of glaciers, including the atmospheric exchange processes on the ice surface, and the forces that control glacier motion. The second half of the class will cover glacial erosion and deposition. These effects on the landscape will be examined from a mechanical perspective. Because glaciers and ice sheets are so closely linked to climatic variations, we will encounter climate as a natural consequence of our study of glaciers.

Course Topics		Grading	
Week 1	Glacier formation and distribution	Undergrad	Graduate
Week 2	Glacier structure and mass balance	Homework	30% 30%
Week 3	Energy exchange and hydrology	Project	20% 25%
Week 4	Glacier Dynamics	Tests	30% 30%
Week 5	Glacier Erosion	Final Exam	20% 15%
Week 6	Glacial Deposition		
Week 7	Effects of Ice Sheets		
Week 8	Periglacial processes		
Week 9	Project Reports		
Week 10			