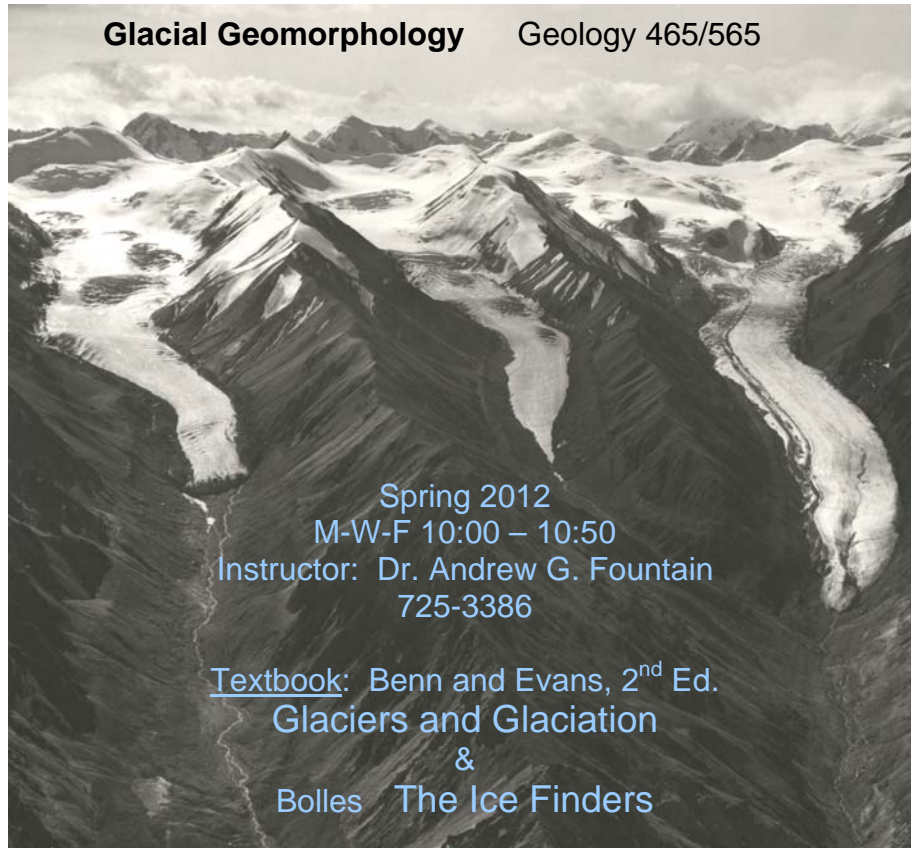


Glacial Geomorphology Geology 465/565



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	Climate & Glaciers			
Week 9	Periglacial processes			
Week 10	Project Reports			