





# Syllabus for SNOW & SNOW COVER - GEOS 692 (3 credits)

	Prerequisites: Graduate standing or permission of instructor
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	Location: TBA
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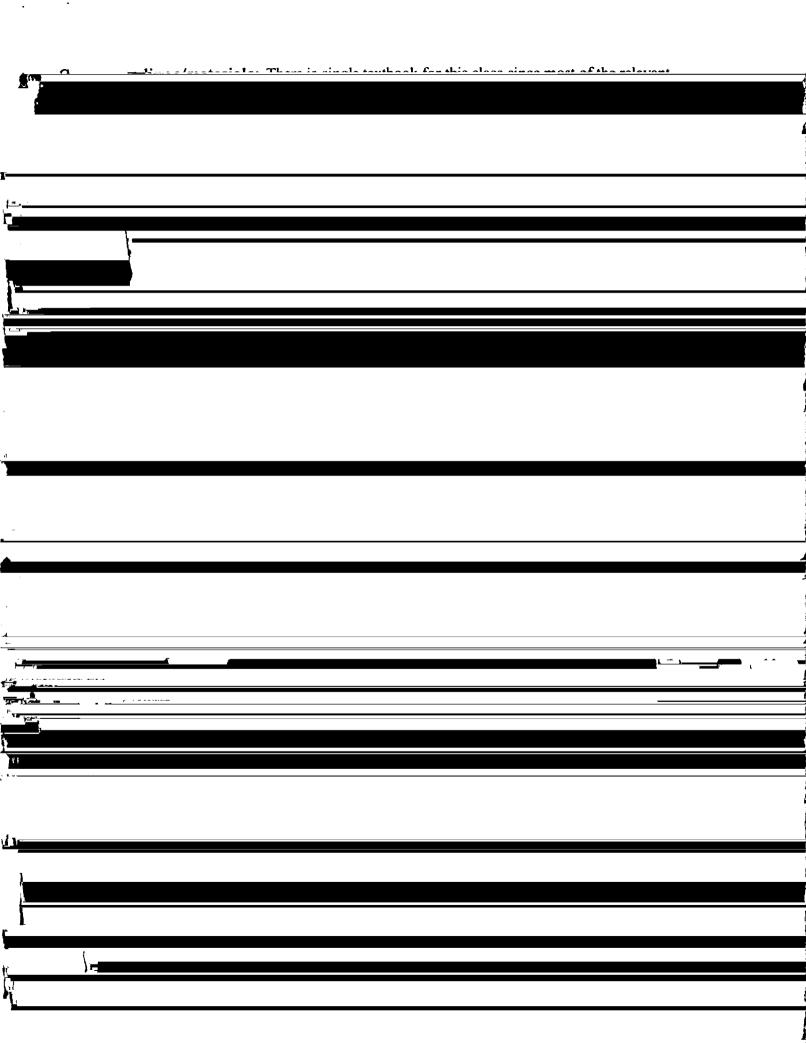
Matthew.Sturm@gi.alaska.edu

phone: 474 - 5257. In urgent cases you can also reach me at my home

telephone number: 457-1898.

Office hours: ad hoc / by appointment

Course content



#### Course Schedule

### Part I: Snow Precipitation & Micro-Scale Physics of Snow

- Week 1: Course overview: Water/ice physics
- Week 2: Formation of snow in the atmosphere
- Week 3: Weather and snow deposition
- Week 4: Dry snow metamorphisms & densification
- Week 5: Snow melt, wet snow metamorphism transition to firn

### Part II: Layered Snow Covers and Snow Redistribution

- Week 6: Wind and snow: physics
- Week 7: Wind and snow: redistribution
- Week 8: Avalanches

### Part III: Special Topics in Snow Science

- Week 9: Snow Remote Sensing
- Week 10: Snow and Living Things (Plants and Animals)

## Part IV: Large Scale Snow Processes & Ramifications

- Week 11: Snow instrumentation & modeling
- Week 12: Snow in the climate system
- Week 13: Snow in human society
- Week 14: Arctic snow

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### Laboratories & Field Trips

Lab 1: Snow flakes: Capturing, preserving & photographing them (wherever/whenever it snows)

Lab 2: Destructive metamorphism (West Ridge/Arboretum)

	Wind and Snow 1: Bagnold, R. A. (1937). "The transport of snad by wind." The Geographical Journal
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	Wind and Snow 2: Doumani, G. A. (1966). Surface Structures in Snow. International Conference on Low Temperature Science: I. Physics of Snow and Ice, Sapporo, Japan.  Wind and Snow 2: Doumani, G. A. (1966). Surface Structures in Snow. International Conference on Low Temperature Science: I. Physics of Snow and Ice, Sapporo, Japan.  Wind and Snow 2: Doumani, G. A. (1966). Surface Structures in Snow. International Conference on Low Temperature Science: I. Physics of Snow and Ice, Sapporo, Japan.  Wind and Snow 2: Doumani, G. A. (1966). Surface Structures in Snow. International Conference on Low Temperature Science: I. Physics of Snow and Ice, Sapporo, Japan.
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	Pruit, W. O. J. (1984). Snow and Living Things. Northern Ecology and Resource Management. Rod
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