1. ACTIO

2 | 3 | 4 | 5 | XX 6 weeks to ful

semester

(check all that apply)

RECEIVED

X

F694 is trial course number

RESTRICTIONS ON ENROLLMENT (if any)

15. SPECIAL RESTRICTIONS, C... [illegible]

[illegible] HISTORY

Ha[illegible] the course been offere[illegible] ...al topics of that course previously? No

Yes/No

[illegible] Director has approved this req[illegible]

[illegible] of veh[illegible] ...of vehicle rentals.

The course will require a small classroom with space for u[illegible] [illegible] ...ing.

LIBRARY COLLECTIONS

[illegible]re you contacted t[illegible] ...ary collection developm[illegible] ...nt officer (kljensen@alaska.edu, 474-6695) with regard to the a[illegible] ...ment, and [illegible]

IMPACTS ON PROGRAMS/DEPTS

What programs/departments will be affected by this proposed action?

Include information on the Programs/Departments contacted (e.g., email, memo)

The MS and PhD [illegible] programs in the Dept. of Geol[illegible] ...ophysics will be affected by the proposed cours[illegible]

[illegible] ACTION REQUESTED

[illegible] ...me purpose of the department and campus-wide curriculum committees is to scrutinize course change and new course applications to ma[illegible] ...e that the quality of UAF education is not lowered as a result of the proposed [illegible] ...ge. Please address this in [illegible]

[illegible] has been part of the graduate curric[illegible]

[illegible] We anticipate that the course will be very popular with graduate students pursuing [illegible] with a concentration in Sn[illegible]

APPROVALS: *Add additional signature lines as needed.*

Date

ALL SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISS

Date

Signature, D

F694 is trial course number.

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

Prerequisites: Graduate standing or permission of instructor

Location: TBA

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

[redacted]

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

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

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 3: Kobayashi, D. (1972). "Studies of snow transport in low-level drifting snow."

Pruitt, W. O. J. (1984). Snow and Living Things. Northern Ecology and Resource Management. Rod