

High Latitude Hydrology- Spring 2023

GLY6932; Class 20954, section 1587
GLY4930; Class 225874, section 1231

Instructor: Dr. Jon Martin
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Office Hours: 1:30 to 3:30 pm Wednesday or any other time I am free. Please make an appointment prior to coming to office hours (email is the best way to reach me).
Text: No text is required. Readings will be from the current peer-reviewed literature. A useful reference is Benn and Evans, *Glaciers and Glaciation*, 2nd edition, ISBN-13: 978-0340905791
Meeting Place: Meetings will be virtual and synchronous; they may move to face to face depending on status of the pandemic
Meeting Time: Alternating Wednesdays 4-5 pm

Objectives:

This class is designed to give students an appreciation of modern watersheds and biogeochemical reactions in high latitudes. The primary objective will be to develop an understanding of how landscapes change as ice sheets form and retreat at glacial-interglacial time scales. This understanding will inform predictions of how the landscapes may change in the future as anthropogenic warming of the Earth is amplified in the Arctic. The objective will be met through occasional readings of the primary peer-reviewed literature and by discussion with other faculty and students involved in the 2019 Water Institute Graduate Fellows program.

A second objective is to develop skills required to mount a major field campaign in the Arctic. These skills include understanding logistical constraints in working in remote areas as well as developing science questions that can be addressed through a field campaign. This objective will be met by planning an actual field campaign to take place in Greenland during the summers of 2022, 2023, and 2024.

A third objective is to develop communication skills while working in interdisciplinary groups of scientists. These skills will be met through practicums of meetings with the participants of the field campaigns to take place in Greenland.

Readings:

Readings will be assigned periodically to support and enhance the discussions of the field activities. They may include papers that address specific logistical constraints, field and laboratory techniques, particularly those suited to work in the Arctic, and basic fundamental science findings.

Expectations and evaluations:

Because this class is not organized around standard lecture/testing protocols, the expectations for your work and behavior in class may be a bit different from what you may have experienced previously. In particular, I expect the following from you:

(1) Come to all classes. Absences must be excused by a note from a doctor or a mortician and unexcused absences will significantly impact your grade.

- (2) Read all of the assigned papers.
- (3) Participate in all discussions.

Grading:

Grades will be assigned on attendance and participation in the classroom activities and discussions.

Some additional information

- (1) Attendance is mandatory.
- (2) No make-up work will be allowed.
- (3) No textbook is required.
- (4) Class demeanor:
 - a) Class will start on time. Please be punctual. Turn off cell phones.
 - b) I expect lively discussions in this class, but demand respect for each other's views and backgrounds. Personal slights, either overt or covert, will not be tolerated. Everyone should talk and everyone should respect what others have to say.
- (5) All students are expected to follow the University honor code: neither give nor receive unauthorized aid in doing any assignment. Not adhering to this policy will result in a failing grade for the class.
- (6) Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.
- (7) Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.
- (8) Because work expectations and the pedagogical approach of this course depend heavily on student engagement and interaction, you are required, at a minimum, to participate in class activities through the audio function of Zoom. Your video presence is invited as well.

Tentative Schedule.

Week	Date	Topic
1	January 11	Logistics
3	January 25	Science results discussion
5	February 8	Logistics
7	February 22	Science results discussion
9	March 8	Logistics
11	April 5	Science results discussion
13	April 19	Logistics
15	May 3	Science results discussion

Notes:

- 1) This schedule is likely to change depending on circumstance of field planning.
- 2) The readings will be determined based on students' and other participants' interests.