

High Latitude Hydrology
GLY6932; Class 27584, section 4646
GLY4930; Class 27582, section 4646
Fall 2020

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Office Hours: 2-3 pm Mon./Wed. or by appointment (call or email first)
Meeting Place: Meetings will be virtual
Meeting Time: 10-12 Fridays

Objectives:

This class is designed to give students an appreciation of 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 times 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. This objective will be met through occasional readings of the primary peer-reviewed literature.

A secondary 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 through developing an actual field campaign to take place in Greenland during the summers of 2021, 2022, and 2023.

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:

Since this is not a standard lecture/testing class, 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 (see below).
- (2) Read all of the assigned papers.
- (3) Participate in the 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) Our class sessions may be audio-visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voice recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials by students or any other party is prohibited.

Possible Readings:

Submarine groundwater discharge and sea level rise effects on coastal aquifers

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Hyporheic flow and carbonate streams

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