

Paleoenvironmental Reconstruction

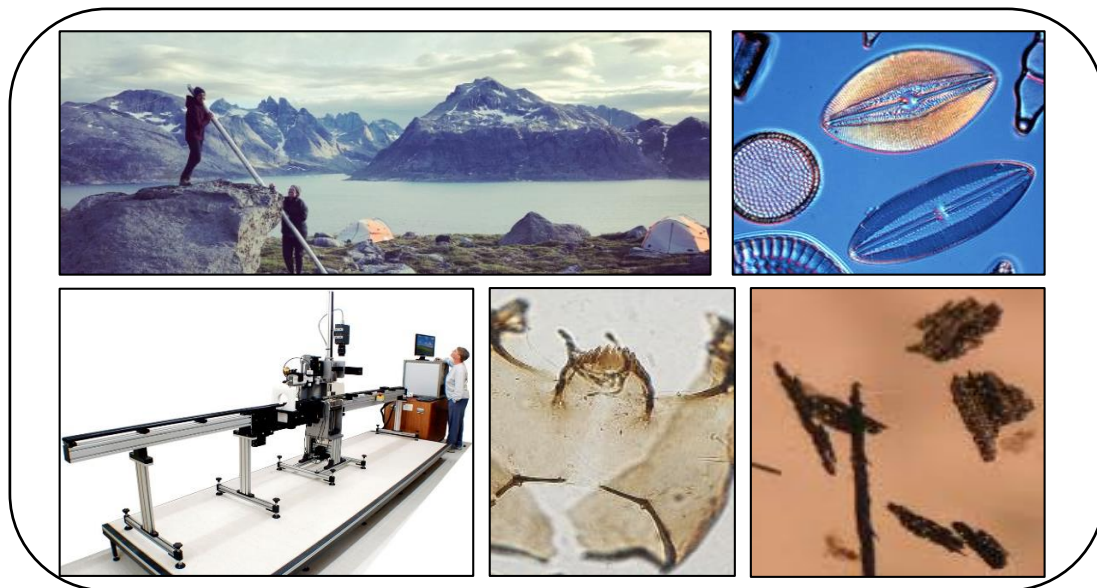
Professor Melissa Chipman

Fall 2019

Undergraduate: EAR 400, section 20754

Graduate: EAR 600, section 20757

Meeting times/location: Heroy (HGL) 217, 9:30-10:50 T,Th



How do we study climate and environments of the past? In particular, what geological and biological information can we derive from archives such as tree rings, lake cores, and ocean sediments? In this course, we will explore various techniques for reconstructing environments of the past. Students will learn about current issues in paleoenvironmental science, and will get hands-on experience using several paleo techniques.

Course structure: We will read and discuss literature on various topics (no textbook required). Weekly labs may include activities such as splitting lake-sediment cores, describing stratigraphic changes, sieving and weighing sediment fractions, analyzing samples on a core-logging system to extract geochemical data, isolating insect remains and charcoal under a dissecting microscope, and using field guides to correctly identify fossil material.

Requirements: This course is suitable for upper-level undergraduate and graduate students with backgrounds in Geology, Biology, Ecology, Environmental Science, Anthropology, and/or Geography. *Note, students will be required to participate in a 1-day local fieldtrip (most likely a Saturday).*