

Geology 1052/2049 – Paleoclimatology

Spring 2010 Tuesday and Thursday 11 to 12:15 pm

Class Description: The goal of this course is to present an overview of the methods used to reconstruct the earth's climate history and the techniques used to determine the timing of environmental changes. Paleoclimate data from proxy records, such as ice cores or tree rings, provides a longer perspective on climatic variability than is possible from instrumental or historical records. Particular emphasis will be given to the climatic changes during the late Cenozoic – the time of the ice ages. Topics to be discussed will include: paleoclimatic reconstruction, climate and climatic variation, dating methods, ice cores, marine sediments and corals, lake sediments, spellothems, soils, pollen analysis, dendrochronology, packrat middens, documentary data, and paleoclimate models.

Prerequisite: GEOL 0800.

Instructor: Dr. Mark Abbott, Geology and Planetary Science

Office: SRCC 404; **Phone:** 412-624-1408; **email:** mabbott1@pitt.edu

Office Hours: Tuesday 12:20 to 1:20, Friday 3 to 4 and by appointment. I will do my best to have an open door policy. Please feel free to come see me with questions!

Attendance: Required. Class participation is important and is counted toward your grade. Please let me know if you are going to miss classes by phone or email.

Required Text: Earth's Climate Past and Future, second edition (2008), William F. Ruddiman, W.H. Freeman and Company New York.

Examinations: Two exams and a final exam will be given during the semester (see attached schedule). They will cover separate blocks of material presented in the lectures and reading assignments. The final exam will be cumulative, but will emphasize the last block of material.

Grades:

Class Participation and Attendance	5%
Exam 1	25%
Exam 2	25%
Final Exam	45%

** Graduate students – 15 to 20 page research paper with figures – see me for suggestions and comments (required).

Policy on Late Work and Makeup Exams: There are no make-up exams unless there are absolutely unavoidable circumstances and a written excuse is provided. Make-up exams consist of essay questions.