

## **GEOS 692 F02 Special Topics in Sedimentary Geology**

### **Climate Change Through Earth History: From Snowball Earth to the PETM**

Meeting time: W 2:00-3:00 pm

Instructor: Michael Whalen, office REIC 332, phone x5302, office hours T-R 4:00-5:00

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#### **Course Description**

This will be a seminar course intended to explore classic and current papers dealing with climate change throughout Earth's history. We will read one or two papers from the literature each week. One member of the class will be responsible for picking a paper, providing a brief summary of the paper, and leading class discussion on the content of the paper.

The main purpose of the class is to broaden your background on how we evaluate the climate of the past and to foster critical evaluation of the geologic literature. During weeks when you lead class discussion you are encouraged to present relevant information from related publications. Controversial topics or those that bring a new perspective to an old geologic problem will probably be the most beneficial to broadening your background and stimulating discussion. If the topic is relatively obscure please be prepared to present some background information to bring everyone up to speed.

#### **Course Goals and Student Learning Outcomes**

The purpose of this course is:

- to expose students to cutting edge geoscience research related to ancient climate
- to explore the interrelationship between tectonics, climate, and the biosphere
- to participate in scientific discussion with peers and faculty

#### **Instructional Methods**

This will be seminar-style class where reading and discussion of relevant literature will be the main method instructional method.

#### **Course Materials**

Journal articles or other materials assigned as reading will be available as PDFs through the course Blackboard page. Students are expected to regularly check the course Blackboard page for the latest instructions and information.

Internet resources. Various online databases such as Geoscience World, GeoRef, etc. can be used for researching articles. Other websites with relevant information include the DGGs and USGS pages.

#### **Grading and Course Policy**

Attendance is mandatory. The course will be graded Pass-Fail. Students missing more than two class sessions will earn a failing grade. Your grade will be based entirely on the summaries of articles that you choose and your participation in class discussions. When it is your turn to pick a paper you should provide a copy (pdf or photocopy) to each member of the class no later than 5:00 pm on the Friday before class.

## Schedule

Date	Discussion Leader
W Jan. 20	Introduction
W Jan. 27	MTW
W Feb. 3	PG
W Feb. 10	AH
W Feb. 17	DL
W Feb. 24	PG
W Mar. 2	AH
W Mar. 9	DL
W Mar. 16	<b>Spring Break</b>
W Mar. 23	PG
W Mar. 30	AH
W Apr. 6	DL
W Apr. 13	PG
W Apr. 20	AH
W Apr. 27	DL
W May 4	Finals week

**Support Services:** Libraries, Alaska Division of Geological and Geophysical Surveys, U.S. Geological Survey, other graduate students, various websites.