

## **BIOL 457: PALEOECOLOGY AND ENVIRONMENTAL CHANGE**

Dept. of Biology, University of Victoria - Fall 2019

**Instructor:** Dr. Terri Lacourse  
Cunningham 155a  
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Office hours: By appointment

**Lectures:** Mondays & Thursdays 11:30 AM – 12:50 PM in Cunningham 146

### **Course Description:**

The last two million years provide the best opportunity for studying the responses of species and ecosystems to environmental change on long timescales. Climate changed frequently and sometimes abruptly during this period. In response, the abundances and distributions of species also changed dramatically, and

### **Paper Critique & Presentation:**

Students will critique a peer-reviewed paper from the primary literature and give an oral presentation on their chosen paper. A list of papers to choose from will be provided. Assignment details will be provided during lecture.

### **Important Notes:**

- 1) If you miss the midterm exam (due to an emergency or for a medical reason), the final exam grade will be used in place of the midterm in the final grade assessment. No supplemental midterms exams will be offered.
- 2) Assignments submitted late will receive a grade of 0.
- 3) As per University regulations, students who do not complete all tests and assignments will be given a final grade of 'N' and will not be permitted to write the final exam.
- 4) In order to receive a passing grade in the course, a passing grade on the final exam is required.
- 5) Final grades will be assigned on the basis of the University's official grading scale with 'F' and 'N' as per university regulations.
- 6) The last date for course withdrawal without academic penalty is 31 October 2019.
- 7) *The University has a strict Policy on Academic Integrity, which includes provisions for the "Unauthorized Use of an Editor". All students are required to familiarize themselves with this policy, which is described in detail in the University Calendar:*  
[web.uvic.ca/calendar2019-09/undergrad/info/regulations/academic-integrity.html](http://web.uvic.ca/calendar2019-09/undergrad/info/regulations/academic-integrity.html)

### **BIOL 457 Lecture Schedule\* – Fall 2019**

<b>Week of...</b>	<b>Lecture Topics</b>
Sep 3	Introduction to BIOL 457
Sep 9	Quaternary environmental change: paleoclimate, glaciations.
Sep 16	Where are paleoecological records preserved? Dating methods. Holocene environmental change.
Sep 23	Principles of paleoecology. Fossil pollen and spores.
Sep 30	Paleovegetation dynamics. Species-specific responses.
Oct 7	Plant macrofossils. Packrat middens.
Oct 14	<i>No class Oct 14 (Thanksgiving). Midterm exam on Oct 17.</i>
Oct 21	Charcoal analysis & fire history. Paleolimnology. Multi-proxy records.
Oct 28	Late Pleistocene megafaunal extinctions: humans vs climate.
Nov 4	Megafaunal extinctions continued. <i>Student Presentations.</i>
Nov 11	<i>No class Nov 11 (Remembrance Day). Student Presentations.</i>
Nov 18	<i>Student Presentations.</i>
Nov 25	Course review.
Dec 2	Last class: Exam preparation.

\* Lecture schedule is subject to revision as the course proceeds.