

BIOD52 Special Topics in Biodiversity and Systematics
2014 Winter

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- Schedule: Tuesday 1-3pm, HW402
- Calendar: A seminar exploration of current topics in biodiversity and systematics, including the molecular genetic, organismal, and community levels. Topics may include DNA barcoding, homology and developmental genetics, adaptive radiations, and morphological v.s. molecular systematics. The course is intended to develop ability in critical thinking and interpretation of the primary literature. Coursework will involve class presentations, discussions, and written analyses.
Prerequisite: BIOC50H3
- Goal: The goal of this course is to take an in-depth look at current topics in the fields of biodiversity and systematics. Work in these areas forms the basis for understanding how diversity in the natural world originated, is ecologically maintained, is understood by scientists, and is best protected. We will select topics that may be contentious, and should provide the basis for constructive analysis and debate. An objective of the course is the develop abilities in the analysis, evaluation, and presentation of primary scientific literature.
- Format: This is a seminar class, where we will encourage lively discussion and debate on selected topics. We will rely on students to be fully prepared and to be active participants at each meeting. Scientific topics and related articles will be assigned for each week by the instructors (generally as pdf documents downloadable from Blackboard). Before class each week, students should read any assigned papers, and prepare questions/comments. Each student should also write a one page double-spaced summary of the readings to be handed in at the start of class.
- In class, the group responsible for presenting that week's topic (see below) will make a short presentation (approximately 20 minutes). The group responsible for presenting that week's topic will then moderate a discussion of the assigned material.
- Students will be assigned to groups and will be responsible for facilitating and leading two of the class topics. For this, the student groups should: (1) consult additional sources of literature on the topic (5 to 10 journal articles), (2) as a group, prepare an approximately 20 minute presentation of the week's topic, using Powerpoint slides. Then, the group will moderate a discussion among all class members. Instead of writing a one page summary for that week, the group should turn in a list of the additional sources of literature consulted (5 to 10 journal articles).

Paper: Students will prepare and present one major research assignment on a topic chosen in consultation with the instructor or TA. This research paper should be framed as an analysis or discussion of a topic, rather than a survey or overview. The paper should include approximately 3000 words of text (double spaced) with additional pages for figures/tables/references. To prepare this paper, students are expected to read (and cite) 15+ articles from the primary scientific literature. Additional instructions regarding content and format will be provided. The final paper is due on the 1st of April.

Grading scheme:

Participation in class discussions:	15%
One page summaries of weekly readings:	15%
Presenting and leading two class discussions:	30%
Research paper:	40%

