

BIOL 462 | Spring 2020

Community & Ecosystem Ecology

Lectures: Tu, W, Fr 10:30-11:20

Synchronous

Instructor: Dr. Brad Anholt

Email: banholt@uvic.ca

Office hours: W 1-3:30 pm
or by appointment

Course Rationale and Format The goals of this course are twofold: 1) to broaden and deepen your understanding of the field of ecology, 2) to develop skills you need in order to become an independent scientist. Among these skills are:

- ^ Understanding the process of scientific research and discovery. This involves developing your abilities in critical thinking and hypothesis testing;
- ^ Learning to read and critically evaluate scientific papers;
- ^ ~~Communicating your findings effectively (writing, presentations, posters, etc.)~~

- ^ evolutionary considerations
- ^ species extinctions
- ^ species invasions
- ^ community effects on ecosystems
- ^ global change effects
- ^ etc.

Lectures on TW will provide an overview of a theme, including its conception, theoretical underpinnings, and development within the field of ecology. I hope for (and have already seen) lots of discussion and questions.

Readings of the primary literature will require reading classic and contemporary papers in the field of ecology. An annotated Bibliography of those readings is a Major assignment.

Review Papers Each student will write both a short and a long review paper (3 pages and 8 pages double spaced maximum, not including references) on an ecological topic of interest. Students are required to submit a paper proposal before writing the paper

Examples might include:

- ^ What is the history of the diversity/stability debate and where does it stand now?
- ^ What is the evidence for top-down control versus bottom-up control in ecosystems
- ^ How do we incorporate evolutionary dynamics into a community ecology framework
- ^ What makes a good invasive species
- ^ Can invasion ecology teach anything to restoration ecology

Note that these are all framed as questions to be answered; not necessarily definitively, but with due attention to the literature.

Course Evaluation

minor paper 3 pages proposal (5%) by 30.Jan paper due 24.Feb	15%
Annotated bibliography of at least 60 papers due 3.Apr	40%
Major paper 8 pages, proposal (5%) due 12.Mar paper due 3.Apr	35%

Papers submitted by the deadline are eligible for a rewrite to improve the grade. Papers submitted more than 1 week after the deadline will not be graded.

Grading Scale: Final grades will be assigned on the basis of the official UVic grading scale:

<https://web.uvic.ca/calendar2020-01/undergrad/info/regulations/grading.html>

Academic integrity

I draw your attention to the UVic Academic Integrity Policy which you agree to by continuing in this course

<https://www.uvic.ca/students/academics/academic-integrity/index.php>

While I encourage collaboration such as discussion of readings or reviewing and editing each other's work, all submitted work must be your own.

No material submitted for grading may be or have been submitted to another course for grading.