

BIOL 451 Course Profile

The course description for BIOL 451 (**Conservation Biology**) can be [found here](#).

Generally offered in: Winter semester

Prerequisite(s): BIOL 313

Antirequisite(s): None

Interview with Dr. Paul Galpern

In your own words, can you give a brief summary about what this course is about?

It is conservation biology; we are interested in understanding the fundamentals behind what is happening to biodiversity. We look at the biodiversity crisis and interactions with the climate emergency. We then try to frame that through the language of community ecology, population ecology, and landscape ecology. The course has a bit of an applied focus; we look at how conservation is done on the ground, and we back that up with fundamentals. There is also a quantitative component: we look at quantitative methods that are used in the literature. We look at the results of the papers and work backwards to try and find what they did and why it matters. **In this course, we bring together quantitative, applied, and fundamental ecology, framed through the lens of the twin crises of biodiversity and the climate crisis.**

What is the main skill you want students to take away from this course?

I am not interested in students leaving with a specific set of knowledge; **I am interested in self-efficacy or self-belief that you can operate effectively in a specific domain.** When you leave a course, you will probably not remember the information or even the skills six months after; what you will leave with is the self-belief that you can learn it again when you need it and that you can operate effectively in that domain. You will take away the capacity to succeed in learning and working at the intersection of the biodiversity crisis, applied conservation, and quantitative data.

What aspect of the course do you think students struggle with the most?

The previous time I taught this course, I don't recall there being a lot of struggling. I do not believe in structuring a course around a bell curve that has a desired average where some students will succeed, and others will not. I use specs-based grading where we are explicit about what success looks like and we expect most students will be able to achieve full success. I do expect that a lot of students will achieve a good grade in this course. The specs aren't necessarily easy to achieve, but they are specific. **What defines success should not be a mystery to students.**

One of the hardest parts of the course is the written responses to reading pieces. We give students multiple chances to get them right, but we have high standards on them. I hope that we are developing confidence in communicating, interpreting and synthesizing ideas in the domain of conservation. I believe this is the most valuable skill that you can leave university with. **We are interested in giving you the confidence and skills to work with conservation-related information and to interpret it.**

Do you see students struggle with specs grading?

I hope that most students find it empowering. I haven't gotten a lot of complaints when I have taught the course, it has been well received.

What can students do to be successful in this course besides attending lectures?

I structure the course in a way so that **students will need to revisit the lecture material weekly**. There are D2L quizzes every week that contain multiple choice questions directly from lecture notes. In class, I give very detailed slides with lots of information on them. I try to present that information in an accessible way. Because of specs grading, you do have chances to fail quizzes and still get the grade you desire. They are not meant to be hard, just an opportunity to look at the notes from that week. **I suggest that students take the course because they are interested in it. Engaging with the material aids in your understanding.**

Does this course have a lab or tutorial component? If so, what should students expect from that component of the course?

Tutorial. It is not a passive tutorial, it is actively run as a weekly discussion with the TAs. You can see it as pretty much an extension of the course.

What do you think is the most effective way that students can prepare for an examination in the course?

I have not run the exam in person so I do not have any clear thoughts yet for how we will deal with the exams this year. Because of this I cannot comment on this yet.

Aside from the textbook and lecture notes, are there any other resources that you recommend students use?

No. The lecture notes are detailed enough.

What is your favorite part about teaching this course?

My favorite part is when I can engage students in discussions. It can be difficult when there are a hundred students in the room but when it happens, it is the best part. That is when a lot of learning happens. Because we are dealing with the two biggest issues of our time (the twin climate and biodiversity crises), I think everyone ought to be engaging with this course.