BIOL/ENEC 669 section 001

1.0 credit hour

Fall 2020

**SEMINAR IN ECOLOGY**

**Disease ecology and evolution**

**Welcome:**

Infectious diseases are not only a topic of current public interest, but a major and growing subject of research in ecology and evolution. The class will cover topics selected by the students; possible topics include but are not limited to: interpretation and application of mathematical models; empirical studies of human, wildlife, insect, and plant host populations; emerging infectious diseases; effects on host behavior; host-parasite coevolution; multi-host systems; multi-pathogen systems; anthropogenic effects on disease; and the COVID-19 pandemic. The course goal is to provide an up-to-date understanding of the causes and consequences of infectious disease at levels from individual organisms to the globe.

**Diversity statement:**

The Department of Biology and E3P value the perspectives of all individuals – regardless of race, national origin, ethnicity, gender identity, gender expression, sexual orientation, religion, political views, socioeconomic status, age, physical ability, and learning ability. I actively work to make this class an inclusive and equitable space for all students. This will be reflected both in how I interact with students in the class, and the content that I provide for the class.

**Instructor:**

Charles Mitchell

Email: [mitchell@bio.unc.edu](mailto:mitchell@bio.unc.edu).

Office hours: via Zoom, by appointment.

**Students:**

The course is open to graduate students and advanced undergraduates in the biological or environmental sciences. Undergraduates must have completed BIOL 201 and at least one advanced (400 level or above) Biology course. They also must have prior experience in both reading and discussing the primary research literature (peer-reviewed articles in scientific journals).

**Time and place:**

The class will be conducted online only. We will meet synchronously each Monday 3:00-3:50pm.

**Organization:**

Each participant will select articles from the current scientific literature and facilitate in-class analysis of the articles.

**Textbook:**

There is no required textbook. Course readings will be posted to the class Sakai site.

**Final exam:**

The final exam will also be conducted online only. It will be on Monday 23 Nov at 8:00am. The final exam will be a short (1-2 pages double-spaced) open-book essay looking back on the class. The specific topic will be discussed in class and announced in advance.

**Grading:**

Participation during in-class discussion: 40%

Leading in-class discussion: 40%

Final exam: 20%