01:119:117 Biological Research Laboratory

Dr. Monica Torres

Course description for remote instruction-Spring 2021

A combination of videos, demonstrations and interactive simulations will be used for students to engage in activities as researchers working in a lab setting during synchronous meetings hosted with Zoom following the official course schedule. Through the course we will focus on building data analysis skills, quantitative reasoning skills, graphing and visualizing results to foster conceptual understanding of freshwater ecosystems. Students will be engaged in active learning by modeling the scientific process using real-world –authentic data (open source databases) to develop a team capstone research project. Students will formulate a testable question, select variables needed to test their question, collect their own data from available real time data sources, analyze data and communicate their findings through a poster presentation and written report. The capstone project will provide students the opportunity to explore further an area of freshwater ecology that interests them, and develop analytical and problem solving skills needed for scientific research, upper courses and career preparation.

What does "synchronous/asynchronous" mean for this course? When are expected and/or required to be online? Will there be regular deadlines for assignments/quizzes/etc. during the week?

The course will be **synchronous.** Labs: students are expected to attend all the scheduled lab meetings (be online on Zoom), attendance will be taken and participation will be required to complete lab activities (quizzes, in class assignments and simulations before the end of the 4 hour lab period). Homework assignments will be assigned weekly and students will have a week to complete the assignments with deadlines stablished before the beginning of each lab. Lecture will be synchronous. The exams will be administered during specific times - students will be required to take them at that time, unless they have one of the acceptable reasons for taking a makeup outlined in the course policy.

When and how will help be provided?

Weekly communication with students will be maintained by posting Canvas announcements (for general class announcements), reminder emails before each class meeting (for specific information including required readings, deadlines, graded

activities and available practice materials for that week), real-time group meetings using (Zoom) breakout rooms during each lab meeting and (Canvas) Collaborations for feedback on team activities. Virtual office hours will be available on a weekly basis as part of the 4 hours schedule of lab classes.