

EVPP 555 - Waterscape Ecology and Management
Fall 2020 (Fridays 1:30-4:10 pm) 2212 Potomac Science Center
Syllabus

Course Description and Goals: This course is the laboratory for EVPP 550 and that course or its equivalent is a pre- or co-requisite. It is used to train students in field and lab techniques used to collect data on freshwater ecosystems. Students will also receive training in data analysis and report writing.

Course Content and Instructional Methods: The subject matter of this course is delivered in the form of field trips, laboratory exercises, problem sets, and assigned readings.

Date	Topic
Aug 28	Belmont Bay Data Mapping *Meet at Potomac Science Center*
Sept 4	Burke Lake: Lake Stratification *Meet at Burke Lake Boat Ramp (enter this in Google Map) * (don't go to Burke Lake Park)
Sept 11	No Lab. Work on Burke Lake Problem Set.
Sept 18	Lab Work Day; Burke Lake problem set due. *Meet at Potomac Science Center*
Sept 25	Gunston Cove/tidal freshwater open water sampling *Meet at Pohick Bay Regional Park*
Oct 2	Stream Trip 1 *Meet at Potomac Science Center*
Oct 9	Stream Trip 2 *Meet at Potomac Science Center* Stream problem set is handed out.
Oct 16	Lab Work Day*Meet at Potomac Science Center*
Oct 23	Lab Work Day *Meet at Potomac Science Center* Stream problem set is due.
Oct 30	Data analysis methods *Meet at Potomac Science Center*
Nov 6	Work Day (1:30-5) *Meet at Potomac Science Center*
Nov 13	No Class: Independent work
Nov 20	No Class: Independent work
Nov 27	No Class: Thanksgiving Break
Dec 7	Last Day of Classes: Project Presentations. Lab Report due. *Meet at Potomac Science Center*

Methods of Evaluation:

Grading:

Each student will be required to participate in each field trip (unless permission is granted by the instructor in advance to miss).

Problem sets will be assigned utilizing the some of the field data to analyze various lake and stream properties.

In addition, each student will adopt a miniproject from the list presented by the instructor. Miniprojects will generally focus on one variable such as zooplankton, nutrient concentrations, benthos, etc. and compare values obtained from various habitats. Students will be responsible for extracting relevant data from field samples (ex., chemical analysis for nutrients, counts for zooplankton, benthos, phytoplankton) and then comparing those values with the literature. Each student will submit a Lab Report on their miniproject by the due date listed above in the form of a scientific paper with introduction, methods, results, referenced comparisons with other studies, and conclusions (15 pp total, double spaced).

Problem sets will count 15% of the total grade each with the lab report counting 70%. Students will lose 5% for each field lab missed unless prior arrangements are made with the instructor. No more than one field lab day may be missed without a penalty.

Instructor: R. Christian Jones Professor, Environmental Science and Policy
Director, Potomac Environmental Research and Education Center
Email (*preferred method of contact*): rcjones@gmu.edu
Center Web Page: <https://cos.gmu.edu/perec/>
Office Hours (Fall 2017): Monday 1-3
Assisting Technician: Laura Birsa lbirsa@gmu.edu