

Stream Ecology

Summer 2015

Zoology 4423, 5423, sec. 050, 3 credit hours

Instructor: Dr. Caryn Vaughn
Teaching Assistant: Brent Tweedy
Email: cvaughn@ou.edu

Class participation, field trips and grades:

Collaboration is vital to the science of ecology! You will be expected to actively participate in fieldwork and processing of samples in the laboratory. You will work in groups to plan, conduct, analyze and write up the results of a field or laboratory group project. You will keep a field notebook where you document and interpret our field activities. In addition to the textbook, which I will provide via handouts, you will read some journal articles and discuss them in class.

Grades will be determined as follows:

- Final exam – 100 pts
- Field notebook – 50 pts
- Group report - 50 pts
- Group presentation - 30 pts
- Participation – 20 pts

Textbook:

Allan, J. David and Maria M. Castillo. 2007. Stream Ecology. Chapman and Hall, London.

Any student in this class who has a disability that may prevent him or her from fully demonstrating their abilities should contact the instructor as soon as possible to discuss accommodations necessary to ensure full participation and facilitate your educational opportunities.

You, the student, are responsible for understanding and abiding by the guidelines published in the Student Code, including the Academic Misconduct Code. Cheating will not be tolerated.

STREAM ECOLOGY SCHEDULE

	Morning	Afternoon	Background Reading
Tuesday, July 28	Field trip to Brier Creek - Mapping, physical and chemical sampling, sample benthic invertebrates & fish	Film: Riverwebs Lecture: Hydrology and Geomorphology Form groups and discuss potential projects	Chapters 1 - 3
Wednesday, June 29	All day field trip to the Blue River Mapping, physical and chemical sampling, sample benthic invertebrates and fish	All day field trip to the Blue River Mapping, physical and chemical sampling, sample benthic invertebrates and fish	
Thursday, June 30	Lecture: Water chemistry Calculate discharge, stream order and watershed area with Blue River and Brier Creek data	Lecture: Autotrophs, heterotrophs & foodwebs	Chapters 4 - 6 Journal article to be assigned
Friday, June 31	Sort, count and identify invertebrates and fish from Blue River and Brier Creek Work on group projects	Sort, count and identify invertebrates and fish from Blue River and Brier Creek Work on group projects	
Saturday, August 1	Work on group projects Turn in field notebooks for progress check (ungraded)	Work on group projects	
Sunday, August 2	<i>DAY OFF</i>	<i>DAY OFF</i>	
Monday, August 3	All day field trip to the Kiamichi River	All day field trip to the Kiamichi River	
Tuesday, August 4	Lecture: Predation, herbivory & competition Process Kiamichi River samples	Process Kiamichi River samples Work on group projects	Chapters 7 - 9
Wednesday, August 5	Lecture: Communities & diversity Process Kiamichi River samples	Statistical comparison of invertebrate and fish communities in Brier Creek, Blue River and Kiamichi River	Chapters 10 -11 Web Stats Handout Diversity indices handout
Thursday, August 6	Lecture: Organic matter & nutrients Conservation Field notebooks due	Work on group projects	Chapters 12 - 14
Friday, August 7	Final Exam	Group presentations Group Project Report Due	