

BIOL 612

## Freshwater Ecology COURSE SYLLABUS

FALL 2008

Time: MWF 8:30, T 8:30-11:20 lab  
 Instructor: Walter Dodds  
 Email: [wkdodds@ksu.edu](mailto:wkdodds@ksu.edu)  
 Instructor: Justin Murdock  
 Email: [murdockj@ksu.edu](mailto:murdockj@ksu.edu)  
 Assistant: Alyssa Riley  
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Location: Lecture AK 231; Lab AK 228  
 Office: 113 Bushnell; Phone: 532-6998  
 Office Hours: by appointment or walk in  
 Office: 108 Bushnell  
 Office Hours: by appointment or walk in  
 Office: 108 Bushnell  
 Office Hours: by appointment or walk in

Text: *Freshwater Ecology: Concepts and Environmental Applications*

Lab Manual: available for copying, or download from the course web page.

Course Web Page Address: <http://www.k-state.edu/dodds/limnology/limnology.html>

### I. Course Requirements

Midterm 1	16%	Questions	6 %
Midterm 2	16%	Laboratory notebook	20%
Midterm 3	16%	Final practicum	10%
Final	16%		

### II. Course Goals

To provide students with an understanding of the applied and theoretical aspects of aquatic systems. This includes some general ecological principles and basics of stream, lake, wetland, and groundwater ecology and management. Environmental issues will be covered. Synthetic understanding is the goal.

### III. Lectures

Please come to class prepared to discuss the materials, schedule is tentative, except exam dates

<u>Day</u>	<u>Date</u>	<u>Lecture</u>	<u>Reading</u>	<u>Instructor</u>
M	Aug 25	Introduction	Chapter 1	Dodds, Murdock
W	27	Properties of Water	Chapter 2	Dodds
F	29	Properties of Water	Chapter 3	Dodds
M	Sept 1	<b>University Holiday</b>		
W	3	Physiography Wetlands	Chapter 4	Murdock
F	5	Groundwater Physiography	Chapter 5	Murdock
M	8	Physiography Streams	Chapter 5	Murdock
W	10	Physiography Lakes	Chapter 6	Murdock
F	12	Organisms intro	Chapter 7	Murdock
M	15	Organisms Microbes/ Plants	Chapter 8	Murdock
W	17	Organisms Microbes/ Plants		Murdock
F	19	Organisms Animals	Chapter 9	Murdock
M	22	Biodiversity	Chapter 10	Murdock
<b>W</b>	<b>24</b>	<b>First exam</b>		
F	26	Biodiversity		Murdock
F&S	26&27	Great Plains Limnology	Lake Texoma, OK	

M		29	General Chemistry & Redox	Chapter 11 (last drop day without a W)	Dodds
W	Oct	1	Oxygen		Dodds
F		3	Photosynthesis		Dodds
M		6	<b>University Holiday</b>		
W		8	Carbon	Chapter 12	Dodds
F		10	Nitrogen	Chapter 13	Dodds
M		13	Sulfur		Dodds
W		15	Phosphorus and iron		Dodds
F		17	Toxic Chemicals	Chapter 14	Murdock
M		20	Toxic Chemicals		Murdock
W		22	Extreme or Unusual Environments	Chapter 15	Murdock
F		24	Extreme Environments		Murdock
<b>M</b>		<b>27</b>	<b>Second exam</b>		
W		29	Nutrient use	Chapter 16	Murdock
F		31	Nutrient Limitation	(last day to drop)	Murdock
M	Nov	3	Eutrophication	Chapter 17	Murdock
W		5	Eutrophication		Murdock
F		7	Eutrophication		Murdock
M		10	Sewage Treatment		Murdock
W		12	Micro-ecology	Chapter 18	Dodds
F		14	Micro-ecology		Dodds
M		17	Predation	Chapter 19	Dodds
W		19	Predation		Dodds
F		21	Other interactions	Chapter 20	Dodds
M		24	Other interactions		Dodds
W		26	<b>University Holiday</b>		
F		28	<b>Thanksgiving</b>		
M	Dec	1	Other interactions		Dodds
W		3	Ecosystems	Chapter 22	Dodds
F		<b>5</b>	<b>Third exam</b>		
M		8	Ecosystems		Dodds
W		10	Research presentation	Chapter 23	Alyssa?
F		12	Prospects for the future, final review		Dodds
<b>Tues</b>		<b>16</b>	<b>Final examination 11:50</b>		

'Question of the day' is required for every class. Each question is worth 2 points, 1 point for effort and one for content. Percent will be calculated as total points / (total classes \* 2 - 12). There will also be 2 extra credit test points for each unique error found in the text and 20 lab points for going to Great Plains Limnology Conference.