

## **AQUATIC ECOLOGY (PCB-3442)**

### **SYLLABUS - SPRING SEMESTER 2014**

**COURSE DESCRIPTION:** Aquatic Ecology PCB-3442 is a general introduction to freshwater ecology. The course covers (in various amounts of detail): freshwater systems of the world, properties of water, biodiversity of freshwater organisms, adaptations to aquatic life, physiology, sensory ecology, trophic ecology, and conservation.

**LECTURES:** 1.30 pm – 2.50 pm: Tuesdays & Thursdays: Biology Room 209

**Demonstrations:** meet at 209 or go to 209 and read any directions posted on door for location changes.

**PROFESSOR:** Dr. Will Crampton

**CONTACT:** ROOM 402D

**E-MAIL:** [crampton@ucf.edu](mailto:crampton@ucf.edu)

**OFFICE HOURS:** Thursday 4-5 pm (or by appointment)

#### **CLASS WEBSITE:**

[crampton.cos.ucf.edu/pcb3442](http://crampton.cos.ucf.edu/pcb3442)

USERNAME: student

PASSWORD: aquatic13

You will see two folders:

*Lectures* (please go here for PowerPoint files)

*Syllabus* (and any additional posting of instructions for term papers etc.)

#### **LECTURE NOTES:**

Will be posted AFTER lectures (typically immediately after) in PowerPoint format

#### **REQUIRED TEXT:**

*No textbook is required*

#### **GRADING SCALE:**

**A**= 90-100, **B**=80-89, **C**=70-79, **D**=60-69. **F** = below 60.

#### **GRADING BREAKDOWN:**

EXAM 1 = 25%

EXAM 2 = 25%

TERM PAPER = 25%

NOTES ON DEMONSTRATIONS = 5%

FINAL EXAM = 20%

### "Curving"

Curves may be applied to exams. Students who achieve over 100% in exams 1 or 2 due to curving will have those points "rolled over" to next exam.

**Exams 1 and 2** are multiple choice. Dr. C will provide Scantron cards.

**Final exam** Multiple choice and short answers. Dr. C will provide Scantron cards.

**Demonstration Notebook:** Write notes on during demonstrations, including web resources (including audio visual presentations). Keep notes on blank sheets of paper (letter size) and use a pencil. Maximum 1 page per demonstration. Summarize what you learned.

**Term Paper:** You will pick an aquatic ecology-related subject of interest to you and conduct a literature-based review. Do not replicate your term papers with material from any other class.

**Abstract:** Title and 50 word abstract for Dr. C's approval.

### Final paper:

Maximum 8 pages, including 200 word (maximum) abstract. Minimum 6 pages.

Title and abstract NOT on separate pages.

Use 12 point Times New Roman. Single spaced.

Type your term paper and submit to me via Turnitin.com (*details to be announced later in semester*).

You are allowed no more than SIX figures (inside your 10 page limit). Embed figures in text near the point at which they are first mentioned. Number them in order of first mention.

You are allowed no more than 4 tables. These are NOT included in your 10 page limit and should be added at the end of the paper.

You are allowed an unlimited number of references.

You are allowed supplementary documents, but they won't get you extra grades unless there is a strong reason for them. I'm not under any obligation to grade the supp. Docs carefully so they will only receive attention if the justification for them is good (e.g. in a paper based on original research).

The paper should be formatted approximately as a scientific journal:

Title, abstract, introduction, then divide paper into headings (with no more than two levels of subheadings: 1., 1.1., 1.1.i.) and have a summary. Then add References, and finally figures.

We will discuss how to find and cite bibliographic information in class.

### OTHER INFORMATION:

**Make-up policy:** Exams can only be made up for valid, documented reasons. You must contact me in advance concerning allowable university events (sporting events etc.) or as soon as possible in the event of an unforeseen event.

**Classroom Conduct:** All students have agreed to abide by the Golden Rule. No plagiarism etc.

**Final Note:** I reserve the right to change the syllabus and management of the class at any time during the semester. These changes will be announced in lecture

**PRELIMINARY SCHEDULE:****PCB3442: Aquatic Ecology: Spring 2014**Dr. Will Crampton (Biology 402D) e-mail [crampton@ucf.edu](mailto:crampton@ucf.edu)**CLASSROOM:** BIO 209**CONTACT:** DR. CRAMPTON: [crampton@mail.ucf.edu](mailto:crampton@mail.ucf.edu)**Class website:** [crampton.cos.ucf.edu/pcb3442](http://crampton.cos.ucf.edu/pcb3442)

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Month	Date	Day	Lecture	Subject	Grade	Notes
January	7	Tue	0	Introduction & Syllabus		
January	9	Thu	1	Water and Life I		
January	14	Tue	-	Guest Lecture (Dr. Sandra Correa USC)		
January	16	Thu	-	Demonstrations: Web resources/Water quality		
January	21	Tue	-	Demonstrations: Web resources/Water quality		
January	23	Thu	-	-		no class: Dr. C on NSF duty
January	28	Tue	2	Water and Life II		
January	30	Thu	3	Water and Life III		
February	4	Tue	4	Water bodies I		
February	6	Thu	5	Water bodies II		
February	11	Tue	6	Life in freshwaters I - viruses & bacteria		
February	13	Thu	7	Life in freshwaters II - protists and fungi		
February	18	Tue	-	<b>Exam 1</b>	25%	
February	20	Thu	8	Life in freshwaters III - plants		<b>Term paper abstract due</b>
February	25	Tue	9	Life in freshwaters IV - invertebrates		
February	27	Thu	10	Life in freshwaters V - vertebrates		
March	4	Tue	-	<b>SPRING BREAK</b>		
March	6	Thu	-	<b>SPRING BREAK</b>		
March	11	Tue	11	Nutrient Cycling and Trophic Ecology		
March	13	Thu	12	Oxygen and pH physiology		
March	18	Tue	13	Sensory Ecology I		
March	20	Thu	14	Sensory Ecology II		
March	25	Tue	15	Sensory Ecology III		
March	27	Thu	-	<b>Exam 2</b>	25%	
April	1	Tue	-	Demonstrations/Film		
April	3	Thu	-	Demonstrations/Film		
April	8	Tue	16	Modes of diversification I		
April	10	Thu	17	Modes of diversification II	5%	<b>Demo notes due</b>
April	15	Tue	18	Modes of diversification III		
April	17	Thu	19	Conservation and Fisheries I		
April	21	Tue	20	Conservation and Fisheries II	25%	<b>Term papers due</b>
April	29	Tue	-	<b>Final Exam (room 209. 1.30-3.50 pm)</b>	20%	