AQUATIC ECOLOGY (PCB-3442)

Spring 2019

SYLLABUS

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 and diversification of freshwater organisms, adaptations to aquatic life, physiology, sensory ecology, trophic ecology, and conservation and management.

LECTURES: Two 1 hr 20 min lectures per week (see Schedule)
DEMONSTRATIONS: Conducted during class times (follow announcements for meeting locations)

PROFESSOR: Dr. Will Crampton
CONTACT: ROOM 402A
E-MAIL: crampton@ucf.edu
OFFICE HOURS: 1030-1230 pm Thursdays. All are welcome!

CLASS WEBSITE:
Lectures and announcements to be posted on Webcourses

LECTURE NOTES:
Will be posted AFTER lectures (typically the same day) 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 = 20%
NOTES ON DEMONSTRATIONS = 5%
FINAL EXAM = 25%

"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.

Final exam: Multiple choice and short answers/multiple choice

Scantron sheets for exams: I will provide them for you at the time of each exam.

Demonstration Notebook: Write notes on during demonstrations, including web resources (including audio visual presentations). Keep notes on handouts or on blank sheets of paper (letter size) and use a pencil if possible. 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.

1. Submit a title and abstract for pre-approval. **Maximum length** 250 words. Submit any time in semester up to deadline on March 7.

2. Once your title/abstract are approved. Use library and online resources. We will discuss strategies for writing your term paper in class. Demonstration 1 will introduce useful resources.

3. Type your term paper, print, and submit to me in class up to the deadline on 16 April.

Instructions:

- Minimum **6** pages. Maximum **10** pages (including abstract and figures but excluding references and tables).
- Use 12-point Times New Roman. Single spaced.
- Arrange in the order:
  Title (on cover page) – up to 3 lines long.
  Abstract (also on cover page) (100 words minimum, 250 words maximum)
  Background.
  Then divide your text into headings of your own choice (with no more than 3 levels of e.g. 1., 1.1., 1.1.i.). and have a summary. Then add References, and finally figures.
  Summary
  References
  Tables
- You are allowed up to six figures. Embed in text near the point at which they are first mentioned. Number them in order of first mention. Include a short legend below each one. Use color if you like. Cite sources of figures.
- You are allowed up to 4 tables. These should be placed at the end of the paper. They do not count in the page count. Format tables as you like.
- You are allowed an unlimited number of references. These do not count in the page count.
- No appendices or other supplementary documents should be included.
- The paper should be formatted approximately as a scientific journal (more information to be provided in class).
- We will discuss how to find and cite bibliographic information in class.

OTHER INFORMATION:

Make-up policy: For valid, documented reasons only. Please contact me in advance concerning allowable university events (sporting events etc., or as soon as possible in the event of an unforeseen event.

Final Note: I reserve the right to change the syllabus and class schedule. These changes will be announced in lecture.

Month	Date	Day	Lecture	Subject	Deadlines
Week 1	8-Jan	Tue		*Introduction & Syllabus*	
	10-Jan	Thu	**1**	Life and the properties of water 1	
Week 2	15-Jan	Tue	**2**	Life and the properties of water 2	
	17-Jan	Thu	**3**	Life and the properties of water 3	
Week 3	22-Jan	Tue		**Demonstration 1/2**	
	24-Jan	Thu		**Demonstration 2/3**	
Week 4	29-Jan	Tue	**4**	Water bodies	
	31-Jan	Thu	**5**	Aquatic viruses	
Week 5	5-Feb	Tue	**6**	Aquatic prokaryotes	
	7-Feb	Thu		**EXAM 1**	
Week 6	12-Feb	Tue	**7**	Aquatic plants	
	14-Feb	Thu	**8**	Aquatic animals	
Week 7	19-Feb	Tue		**Demonstration 3/4**	
	21-Feb	Thu		**Demonstration 3/4**	
Week 8	26-Feb	Tue	**9**	Aquatic animals II	
	28-Feb	Thu	**10**	Diversification I	
Week 9	5-Mar	Tue	**11**	Diversification II	
	7-Mar	Thu	**12**	Reproductive ecology I	**Term paper abstract due**
				SPRING BREAK	
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Week 10	19-Mar	Tue	**13**	Reproductive ecology II	
	21-Mar	Thu		**EXAM 2**	
Week 11	26-Mar	Tue	**14**	Sensory ecology I	
	28-Mar	Thu	**15**	Sensory ecology II	
Week 12	2-Apr	Tue	**16**	Physiology I	
	4-Apr	Thu	**17**	Physiology II	
Week 13	9-Apr	Tue		**Demonstration 6**	
	11-Apr	Thu		**Demonstration 7**	
Week 14	16-Apr	Tue	**18**	Conservation Biology I	**Term paper and demo notes due**
	18-Apr	Thu	**19**	Conservation Biology II	
Week 15	25-Apr	Thu		**Exam 3 (Final) 0700-0950 (BIO 209)**	