

Course Title & Number: **BIO 883 Aquatic Trophic Ecology**

Credits: 3 semester

Class Time: Spring 2017, ASY

Instructors: Dr. Nate Bickford, office Brunner 319

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I. COURSE DESCRIPTION:

The course is devoted to the major questions, approaches, applications and tools of modern freshwater ecology. With its primary focus on freshwater ecosystems, this course will cover important issues in aquatic ecology. The course will cover basic ecological theory, methodology, and issues such as global warming, surface and groundwater quality, dams and water diversion, etc. Emphasis will also be placed on helping students develop the ability to critically evaluate scientific issues and information. The course is aimed at providing students with a broad-based foundation in current issues in aquatic ecology. The students will be able to understand how freshwater ecosystems function including the physical, chemical, and biological components of lentic and lotic systems. The various threats facing the quality of freshwater bodies will be considered and the students will be able to utilize this knowledge in water quality assessment, water quality management and wetland management. Students will acquire the necessary knowledge and tools to assess the quality and ecological status of freshwater bodies and select specific management options.

II. COURSE MATERIALS:

Text & Supplies:

- 1) Aquatic ecology by Dobbs.
- 2) Three ring binder for handouts, tests, and quizzes. Bound Lab Notebook for lab.
- 3) Blackboard access to class materials.

III. COURSE OBJECTIVES:

In accordance with the Mission and Goals of the University and the Biology program, the following course objectives have been established:

- 1) Describe connections between science and other disciplines, and express the relevance of life science to your daily life and health.
- 2) Work effectively in groups, collaborating in team investigations, providing constructive feedback to peers, and utilizing constructive feedback from peers.
- 3) Practice analytical laboratory skills. Identify pertinent information from current journals and judge the quality of the work described. Analyze the experiments of other scientists.
- 4) Integrate fundamental scientific knowledge in the solution of scientific problems. Design experiments to answer scientific questions or problems, using the scientific method.
- 5) Communicate scientific concepts and analytical arguments clearly and concisely, both orally and in writing. Utilize self assessment techniques and feedback from instructors to improve the quality of communication.
- 6) Evaluate the impact of current technologies on human culture and the environment, and consider the questions and problems society will face as technology advances.

IV. Performance Assessment: Your grade will be determined based upon the total points earned on examinations, problem solving assignments, a laboratory notebook/reports and a paper. There is no provision for doing extra or outside work for improving your grade.

Read – Read - Read

Read the chapter that we are covering before class starts. That will usually consist of reading 20-30 pages a week. If you do not read you will have trouble with the tests.

Exams: two take home exams are scheduled for the semester. Materials to be evaluated include: 1) the material discussed during classes and the indicated chapters from the text, and 2) the material from the scientific papers, lab manual and handouts. If you have to miss an exam for any reason, you will have to schedule a makeup time with the instructor and complete the makeup test within one week of the original exam date. **You will be allowed one makeup exam per semester.** The makeup exam may not be the same test as that taken by the rest of the class. Exams represent 300 points.

Methods of Stream Ecology: How would you use these methods and why. Also answer questions

Short Research Papers: One short ethic essays will be assigned on aquatic topics.

Exams (2)	300 pts
Essay	100 pts
Reading Writing project	165 pts
Weekly questions	150 pts

The grading scale used for this class is as follows:

90% - 100%	A
80% - 89%	B
70% - 79%	C
60% - 69%	D
below 60%	F
less than 600 points	= F

In general, grades for the course will be assigned as:

A – Indicates that the work is markedly superior and is without major problems. It is an honors grade denoting that the goals for the.

B – Indicates that the work has met all of the requirements of the assignment or course at a level that is consistently above average.

C – Indicates satisfactory work that is consistently average and that meets the course goals at a sufficient level to pass.

D – Indicates the minimal achievement in order to earn credit, even though the work is below the standard required for good academic standing.

F – Indicates failure to complete an assignment or course, or work that does not fit into the requirements of the assignment or course.

COURSE POLICIES: The lecture and laboratory rooms should be considered sanctuaries for the pursuit of knowledge. Those who enter them should be committed to learning and to respect the ideas and opinions of others. Undesirable behavior in the class or laboratory will lead to dismissal from the lecture or lab session and even expulsion from the course. Undesirable behavior includes (but is not limited to), harassment of any kind, disrupting class when arriving late, the **use of cell phones**, and continuously talking.

Cheating (at any level) is an intolerable behavior that has no place in any scientific, educational, or social activity. Penalties for cheating and plagiarism can be found in the university catalog.

Late assignments: Without a valid excuse, any assignment not turned in on time is a Late Assignment. Late assignments will be docked 10% of its total possible points per day, holidays and weekends excluded. So if a 40 pt Lab Report was due on Tuesday, you will receive 36 pts if you turn it in on Wednesday and 32 pts if you turn it in on Thursday. It does not matter if our next class will not meet until Thursday.

SPECIAL ACCOMMODATIONS: Any student with a disability or other special circumstance requiring academic accommodations or other consideration in order to successfully complete the requirements of this course should identify himself or herself individually to the instructor AND to the Center for Academic Excellence.

SUBJECT TO CHANGE *This syllabus and schedule are subject to change in the event of extenuating circumstances. If you are absent from class, it is your responsibility to check on announcements or assignments made while you were absent.*

Class Attendance Policy

A. UGF Policy:

"Students are expected to attend all classes and complete all assigned work. The specific attendance and grading policy for each class is determined by the instructor and is listed in the course syllabus. Students who miss classes due to participation in University sanctioned events are required to make up any work or assignments they have missed in an equitable manner determined by the instructor and should not have their grade affected by the absence itself. In isolated cases involving family or medical emergencies, students are encouraged to speak with their instructors. Instructors may require documentation of family or medical emergencies." (*UGF Catalog: "Academic Policies"*)

Academic Misconduct

B. UGF Policy:

"Students should exhibit high standards of academic conduct. All acts of dishonesty in academic work constitute academic misconduct. Such acts include:

Cheating: use or attempted use of unauthorized material or the work of another student in any academic assignment, paper or examination.

Plagiarism: representation of another's work as one's own. This includes the unauthorized and unacknowledged use of the phrases, sentences, paragraphs, ideas, illustrations, drawings, photographs, or computer programs of another whether by using exact or nearly exact words without quotation marks or by omitting citations or both.

The course instructor is the initial judge of whether a student is guilty of academic misconduct. Should a student disagree with an instructor's judgment, the student may appeal the instructor's decision by following the "Academic Related Appeals Process" on page xxi of the UGF Catalog.

The minimum penalty for an act of academic misconduct shall be a grade of "F" (failure) on the paper, assignment or examination involved. More severe penalties may be enforced by individual instructors, provided that such penalties are identified in the course syllabus. The maximum penalty for plagiarism that may be levied is a grade of "F" (failure) for the course. Copies of plagiarized work will be placed on file with the Coordinator of Student Faculty Relations. Severe or repeated instances of academic misconduct will result in more severe sanctions up to and including expulsion." (*UGF Catalog: "Academic Policies"*)

Tentative Schedule Spring 2017

1st test will cover – 1-7 12-14 and system

2nd test will cover – 8-11 15-19 and macro inverts

3rd test will cover 20 – 25 and fish