Riverine Ecology

<table>
<thead>
<tr>
<th>Credit/Contact</th>
<th>1 hr</th>
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</table>
| Teaching Format | Lectures and lecture slides  
Reading materials  
Weekly live chat sessions:  
- By Zoom  
- Discussion Time:  
  Wednesday at 6 p.m. |
| Instructor | Dr. Tracey Schafer  
(217) 417-4783 (cell)  
tschafer25@ufl.edu |

**Course Overview:** Riverine ecology is a 1 hour course that introduces students to basic biological, chemical, physical, and ecological concepts related to rivers and streams. This course primarily focuses on using lecture and reading materials to generate discussion about riverine networks.

**Course Learning Objectives:**

Those successfully completing this course will be able to:

1. Describe and discuss many of the ecological aspects affecting riverine systems
2. Identify some of the greatest human impacts on river ecosystems and critically think about ways to address these impacts.
3. Design a conceptual diagram that highlights the primary biological and biogeochemical aspects of rivers.

**References:**

Please refer to these publications according to the dates in the course outline below.


https://doi.org/10.1038/s41561-018-0262-x

**Course Outline:**

<table>
<thead>
<tr>
<th>Dates</th>
<th>Topic and Assignment</th>
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<tbody>
<tr>
<td>Week 1 (August 23-27)</td>
<td>Course overview, objectives, and expectations</td>
</tr>
<tr>
<td>Week</td>
<td>Activities</td>
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<td>---------------------------------------------------------------------------</td>
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| 2      | Introduction to Rivers  
*Lecture 1 (during discussion)* |
| 3      | Riverine Food Webs 1  
(Woodward and Hildrew 2002) |
| 4      | Riverine Food Webs 2  
*Guest Speaker Dr. Matthew Whiles* |
| 5      | Benthic Communities  
*Lecture 2* |
| 6      | Hydrology  
*Lecture 3* |
| 7      | Biogeochemistry – Carbon cycling in riverine systems  
*Lecture 4* |
| 8      | Biogeochemistry- Nutrient cycling in riverine systems  
*Lecture 5* |
| 9      | Nutrient Spiraling  
*Reading assignment for discussion (Ensign and Doyle 2006)* |
| 10     | The River Continuum Concept  
*Reading assignment for discussion (Vannote et al. 1980)* |
| 11     | Human Impacts on Riverine Ecosystems 1  
*Reading assignment for discussion (Best 2019)* |
| 12     | Human Impacts on Riverine Ecosystems 2  
*Pick a paper, read it, and write paragraph in the discussion about it*  
*Due Date: November 5th 5 PM* |
| 13     | Aquatic Invertebrates  
*Guest Speaker Dr. Todd Osborne* |
| 14     | Synthesis and Discussion about final project  
*No Class for Thanksgiving Holiday* |
| 15     | No Class  
*Work on Final project (conceptual diagram of riverine system)  
Due Date: December 3rd at 5:00 PM* |

**Grading Scale:**

Course grades will be determined by class participation and attendance (70%), discussion question(s) (10%), and final project (20%) according to the following grading system: 100-92 =

For more information on UF grading policies, please see https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/

**Attendance, Late Assignments, and Make-up Policies:** Completion of reading and lecture assignments before weekly class chat sessions is expected. Attendance for chat sessions is required unless students notify the instructor at least 3 days in advance with a valid reason. If a chat session is missed with instructor permission, a paragraph in the discussion section will be assigned to the student in order to receive participation points for the missed chat. Since students will be given pertinent information for the final project at the beginning of the semester, no make-up assignment will be possible for student that miss the final deadline.


**Privacy Statement:**
Our class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

**In Class Recording:**
Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or
between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

**Academic Honesty:**

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.” You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: [http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code](http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code).

**Software Use:**

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

**Services for Students with Disabilities:**

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must
then provide this documentation to the Instructor when requesting accommodation

0001 Reid Hall, 352-392-8565,  https://disability.ufl.edu/

**Campus Helping Resources:**
Students experiencing crises or personal problems that interfere with their general wellbeing are encouraged to utilize the university’s counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, [www.counseling.ufl.edu](http://www.counseling.ufl.edu)
  Counseling Services
  Groups and Workshops
  Outreach and Consultation
  Self-Help Library
  Wellness Coaching
- U Matter We Care, [www.umatter.ufl.edu](http://www.umatter.ufl.edu/)
- Career Connections Center, First Floor JWRU, 392-1601, [https://career.ufl.edu/](https://career.ufl.edu/).
- Student Success Initiative, [http://studentsuccess.ufl.edu](http://studentsuccess.ufl.edu).

**Student Complaints:**
- Online Course: [http://www.distance.ufl.edu/student-complaint-process](http://www.distance.ufl.edu/student-complaint-process)