



Forest Water Resources

FNR 4343C (3 credits)

Spring 2023

Instructor

Dr. Matthew Cohen
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Teaching Assistant

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Please communicate 1st through the Canvas mail system available via the eLearning site.

Office Hours

Office hours for Dr. Cohen will be by appointment.
Office hours for Mr. Donsky will be Monday, Period 4 (10:40 – 11:30 am).

Class Meeting Times

Pre-recorded lectures will be available at the eLearning site for each weekly module the prior Tuesday.

Discussion Sections – Monday and (if needed) Wednesday, Per. 3 (9:35-10:25) in NZ 222 or via Zoom

<https://ufl.zoom.us/j/99652885106?pwd=UGs2T3FKYzh3SytRb3JSWVF3R2JPZz09>

Meeting ID: 996 5288 5106 Passcode: 321028

Lab – Monday, Periods 7-9 (2:00-5:00) in NZ 219 *See lab schedule below.*

<https://ufl.zoom.us/j/92261983966?pwd=QUJrK3dRRk1UNmFwRXI1bEF5NSUpUT09>

Meeting ID: 922 6198 3966 Passcode: 433488

Recommended Text

Forest Hydrology: An Introduction to Water and Forests. 2005 M. Chang (2nd Edition)

Course Objectives

This course explores the hydrologic cycle, emphasizing the impacts of forest management. By midway through the semester students will be able to describe and construct a water budget for a watershed, and explain how various components of that budget are measured. Students will be able to describe how forests differ from other land uses in their influence on regional hydrologic systems, and how these differences vary with forest management. By the end of the semester, students will understand various aspects of water quality and how forest management affect key processes such as sedimentation, nutrient loading, eutrophication, and anoxia. Students will become familiar with forest Best Management Practices (BMPs) developed to reduce negative environmental consequences. Experts from forest industry, the Florida Forest Service, engineering/environmental science firms, state Water Management Districts and conservation organizations will help explore current issues in forest water resources.

Course Grades

Fourteen weekly quizzes/problem sets (2% each)	28%
Five lab reports (7% each; <i>Due 2/10, 2/17, 3/3, 3/10 & 4/14</i>)	35%
Midterm Exam - <i>In lab period, 3/27</i>	15%
Final Exam – <i>Take home, due 5/1</i>	15%
Participation (in class, in lab)	7%
Total	100%

Grading scale

A = 100-93%	A- = 90-93%	B+ = 90-87%
B = 87-83%	B- = 83-80%	C+ = 80-77%
C = 77-73%	C- = 73-70%	D+ = 70-67%
D = 67-63%	D- = 63-60%	E <60%

Weekly Schedule

Week	Lectures [#]	Discussion*	Lab (Monday)
1 1/9 - 1/13	Introduction	<i>Course Objectives</i>	NO LAB
2 1/16 - 1/20	Water Cycle and Rainfall	<i>How does it rain?</i>	MLK Day (NO LAB)
2 1/23 - 1/27	Rainfall Probability	<i>What is a 100-year storm?</i>	Excel Tutorial (optional)
3 1/30 - 2/3	Evapotranspiration	<i>How much water do forests use?</i>	Rainfall lab (due 2/10) ^{&}
4 2/6 - 2/10	Infiltration/Soil Water	<i>How does soil moisture vary in time?</i>	ET lab (due 2/17)
5 2/13 - 2/17	Stream Hydrographs Stream Networks	<i>How does water get to the stream?</i>	Sweetwater field trip
6 2/20 - 2/24	Groundwater Water Uses	<i>The occult movement of water below ground.</i>	Streamflow lab (due 3/3)
7 2/27 - 3/3	Wetlands and Karst	<i>Protecting wetlands</i>	Groundwater lab (due 3/10)
8 3/6 - 3/10	NO LECTURE	<i>Catch up before break</i>	Brooks Sink trip
9 3/13 - 3/17	SPRING BREAK	SPRING BREAK	SPRING BREAK
10 3/20 - 3/24	MIDTERM REVIEW	<i>Midterm Review</i>	NO LAB
11 3/27 - 3/31	Water chemistry	<i>What is pollution?</i>	MIDTERM
12 4/3 - 4/7	Nutrients and TMDLs	<i>How much is too much?</i>	Nutrient lab (due 4/14)
13 4/10 - 4/14	Stream Biota	<i>Measuring stream integrity using bugs</i>	Stream Biology workshop
14 4/17 - 4/21	Minimum Flows and Levels	<i>Water for ecosystems, water for people</i>	NO LAB
15 4/24 - 4/26	Best Mgmt. Practices	<i>Why do we have BMPs?</i>	BMP workshop

TAKE HOME FINAL due 5/1 by 11:59 AM

- Lectures will be pre-recorded, and posted to the eLearning site the Tuesday before each module. All students will be expected to have viewed lecture materials and completed the weekly quiz prior to the discussion on Monday morning of each weekly module.

* - Each discussion (Monday morning; 9:35 – 10:25) will include 30 minutes to address questions from the lectures and go over weekly quizzes, and 20 minutes to discuss a prompt provided in each weekly module. As necessary, we will schedule a second discussion (same time Wednesday).

& - Late assignments without written approval from the instructor will be penalized one letter grade per day.



Course Logistics

Lectures will be pre-recorded and provided via links at the eLearning site by the Tuesday prior to each week.

Quizzes will be given based on lecture materials from each week. These will consist of short answer, multiple choice, and quantitative problems.

Discussions will be held every Monday and (when necessary) Wednesday. Students are expected to have viewed the weeks content prior to discussion. The **Participation** grade is primarily based on these interactions. Each discussion will consist of 30 minutes to discuss the week's materials, and 20 minutes to discuss a larger prompt provided in each module.

Labs will be held on Monday from 2:00 to 5:00 most weeks (see schedule). Missing lab without prior written approval from the instructor will result in forfeiting the entire participation grade. Labs will be either online (via Zoom) or outdoors, but COVID-19 protocols above still apply, particularly for transportation.

Policies and Requirements

This course plan and syllabus are subject to change in response to student and instructor needs. Any changes will be clearly communicated in advance through Canvas.

a. Late Submissions & Make-up Requests

It is the responsibility of the student to access on-line lectures, readings, quizzes, and exams and to maintain satisfactory progress in the course. Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Computer or other hardware failures, except failure of the UF e-Learning system, will not excuse students for missing assignments. Any late submissions due to technical issues MUST be accompanied by the ticket number received from the Helpdesk when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request consideration.

For computer, software compatibility, or access problems call the HELP DESK phone number—352-392-HELP = 352- 392-4357 (option 2).

b. Communication Courtesy and Professionalism

Just as in any professional environment, meaningful and constructive dialogue is expected in this class and requires a degree of mutual respect, willingness to listen, and tolerance of opposing points of view. **Respect for individual differences and alternative viewpoints will be maintained in this class at all times.** All members of the class are expected to follow rules of common courtesy, decency, and civility in all interactions. Failure to do so will not be tolerated and may result in loss of participation points and/or referral to the Dean of Students' Office.

c. Semester Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning.

At approximately the mid-point of the semester, the School of Forest Resources & Conservation will request anonymous feedback on student satisfaction on various aspects of this course. These surveys will be sent out through Canvas and are not required but encouraged. This is not the UF Faculty Evaluation!

At the end of the semester, students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at

<https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

d. Academic Honesty Policy

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 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 or 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>.

e. Inclusive Learning Environment

This course embraces the University of Florida’s Non-Discrimination Policy, which reads,

The University shall actively promote equal opportunity policies and practices conforming to laws against discrimination. The University is committed to non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, gender identity and expression, marital status, national origin, political opinions or affiliations, genetic information and veteran status as protected under the Vietnam Era Veterans’ Readjustment Assistance Act.

If you have questions or concerns about your rights and responsibilities for inclusive learning environment, please see the instructor or refer to the Office of Multicultural & Diversity Affairs website:

<http://multicultural.ufl.edu>.

f. Services for Students with Disabilities:

The Disability Resource Center coordinates needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations in the classroom, accessing special adaptive computer equipment, interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office, who will provide documentation to the student who must then provide this to the Instructor when requesting accommodation. 0001 Reid Hall, 352-392-8565, www.dso.ufl.edu/drc/

g. Software Use

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

Campus Helping Resources

For issues with technical difficulties for e-learning in Canvas, please post your question to the Technical Help Discussion in your course, or contact the UF Help Desk at:

- Learning-support@ufl.edu | (352) 392-HELP - select option 2 | <http://elearning.ufl.edu>
- Library Help Desk support <http://cms.uflib.ufl.edu/ask>
- SFRC Academic Hub <https://ufl.instructure.com/courses/303721>

h. Student Life, Wellness, and Counseling Help

Students experiencing crises or personal problems that interfere with their general well-being 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.

- Counseling and Wellness resources <http://www.counseling.ufl.edu/cwc/>
- U Matter, We Care <http://www.umatter.ufl.edu/>
- Career Connections Center <http://career.ufl.edu/>
- Other resources are available at <http://www.distance.ufl.edu/getting-help> for online students.

i. Student Complaint Process

The School of Forest Resources & Conservation cares about your experience and we will make every effort to address course concerns. We request that all of our online students complete a course satisfaction survey each semester, which is a time for you to voice your thoughts on how your course is being delivered.

If you have a more urgent concern, your first point of contact should be the SFRC Academic Coordinator or the Graduate/Undergraduate Coordinator for the program offering the course. You may also submit a complaint directly to UF administration:

- Students in online courses: <http://www.distance.ufl.edu/student-complaint-process>
- Students in face-to-face courses: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>