

University of Florida
Environmental Engineering Sciences

ENV4501: Environmental Hydrology

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| Semester | Fall |
| Course Format | 2 class period |
| Credit Hours | 3 |
| Prerequisite | None |
| Instructor: | Dr. Antar Jutla, 408 Black Hall ajutla@ufl.edu |
| Availability of lectures: | Posted online |
| Schedule and Location: | T Period 5 - 6 (11:45 AM - 1:40 PM) NEB 0201 R Period 6 (12:50 PM - 1:40 PM) NEB 0211 |
| Office Hours: | Send email for scheduling meeting. |
| Final Exam | Last week of semester (12/07/2021 @ 11:45 PM – 1:40 PM) |

Expected Learning Outcomes - Upon successful completion of this course students will:

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| <ul style="list-style-type: none"> • Be able to understand how water moves around earth • Develop comprehensive ability to design water resources and analyze extreme water related events (floods, droughts) • to demonstrate the ability to understand and practice hydrological processes, surface runoff processes, routing methods, probability and risk estimates and basic hydrology model |
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| Course Expectations | This course requires computer modeling simulation for class tasks. Self-learning plays an important role in the design of experiments and learning with computer software. All the softwares will be taught in Windows environment ONLY . If you have MAC system, please consider purchasing a windows environment. There will be an element of uncertainty throughout the semester. This is not reflective on the course objective(s) (which will be met in any case). I sincerely request those who are not able to cope up with “uncertainty” to please seek alternate course. |
| Recommended Text: | <i>Physical Hydrology, S.L. Dingman, Third edition</i> |
| Grading Policy | <ul style="list-style-type: none"> • All exams are mandatory. There is no substitution to exams. • You may use calculators, but use of cell phones, computers and any other equipment with wireless connection is prohibited. The format of exams will be discussed in class. • There is NO replacement rule for anything. If you have had any emergency, please contact me immediately. • Assignments are due by the end of the due date. If the assignment is |

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| | <p>multiple choice, you are will be given instruction to how to solve it. It is your responsibility to make sure you have collected the graded assignments</p> <ul style="list-style-type: none"> • Lab reports are due the same day (usually by 5:00pm) • Some projects are to be conducted in a group. It is your responsibility to choose groups or to do work independently. If you chose a group route, you will be responsible for all the grades etc, whether or not your group member provided any insights or help. • Your grades will be posted either on canvas regularly but not at fixed intervals. It is your responsibility to make sure that grades are entered correctly. I will NOT revise, edit or modify TWO weeks prior to final submission of grades. • Grades will not be revised for loss of potential scholarships, fellowships and other financial aid. No exception will be made. • It is better to discuss early than later if you have any problems with your grades or your understanding of course material. | | | | | | | | |
| <p>Grading:</p> | <table border="0"> <tr> <td>Term Exam (2)</td> <td>50 % (25% each)</td> </tr> <tr> <td>Assignments (5-7)</td> <td>20 %</td> </tr> <tr> <td>Class tasks</td> <td>5%</td> </tr> <tr> <td>Final Exam</td> <td><u>25 %</u></td> </tr> </table> <p>You should not use any device except calculator, and that too should not have internet connection. You must secure 20 points (out of 40) in term exams to be eligible for Final exam. If you do not secure combined 20 points in 2 term exams, your FINAL grade will be recorded as D, irrespective of your assignments or field work points.</p> | Term Exam (2) | 50 % (25% each) | Assignments (5-7) | 20 % | Class tasks | 5% | Final Exam | <u>25 %</u> |
| Term Exam (2) | 50 % (25% each) | | | | | | | | |
| Assignments (5-7) | 20 % | | | | | | | | |
| Class tasks | 5% | | | | | | | | |
| Final Exam | <u>25 %</u> | | | | | | | | |
| <p>Grade Assignment:</p> | <p>100 – 90 A 80-89.999 B 70 – 70.999 C 60 – 69.999 D 59 – 0 F</p> | | | | | | | | |
| <p>Assignments:</p> | <p>Homework assignments will be given approximately every two to three week interval. Each HW will be equally weighted, irrespective to points in the homework. Since this is the design course, the final answer MATTERS, although points will be awarded for methodology as well. If you do not submit assignments by the due date, 10% of the marks will be deducted. I will not accept any late assignment after ONE day, unless you have obtained necessary permission to do so. Instructor reserves right NOT to grade any late assignments and cannot be challenged.</p> <p>Your final answer should be in the box. Failure to do so may lead to deduction of your grades.</p> <p>Be neat: If I cannot understand, I cannot grade.</p> | | | | | | | | |

Your graded assignments will be returned within ONE to TWO weeks of the date of submission. THIS IS AN IMPORTANT COURSE POLICY.

If I fail to record your grade correctly, you need present evidence in form of graded assignments to update your grade. If you lose your marked assignments, your grade will not be changed.

If you need feedback on your assignments, submit paper copies of assignments

IMPORTANT NOTES:

- **A successful completion of this class requires self-reading from the textbook. Most of the material will be covered in the class. However, you are REQUIRED to read relevant chapters from the book since exam, assignments and mid-term problems will be from those chapters.**
- **Use of Chegg.com or similar websites is strictly prohibited.**
- If you think you have trouble in understanding any aspect of class, please see me in my office or send me email elaborating such issues. If you decide to drop this course, please do so during first one to two weeks of the semester.
- I also encourage sending email and making prior appointments.
- It is your responsibility to track grades. If you are unsure, please send email to me and expect a reply within reasonable time. If I do not reply, please see me in my office after two working days. A word of mouth is NOT acceptable communication mode for this class.
- **STRICTLY ENFORCED:** Every issue has to be communicated through email. Your email subject line should start like this: "ENV4501: issue". For example if you have questions regarding assignment your email subject line should be: "ENV4501: problem with assignment". You should expect a definitive response if you follow these instructions. Failure to do so will result in delayed communication and possibly other consequences.
- There are no group exercises in this course

Supplies

- You are required to purchase a file storage device (upto 5GB) or use UF cloud services to hold files for your computer projects.

| | Topic |
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| 1 | Introduction |
| 2 | Hydrology Basic Concepts |
| 3 | Climate, Hydrology and Critical Zone |
| 4 | Review of physics and statistics |
| 5 | Precipitation |
| | Exam 1 |
| 6 | Snow |
| 7 | Evapotranspiration |

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| 8 | Revision of Soil Mechanics Exam 2 |
| 9 | Infiltration |
| 10 | Runoff Generation Final Exam |

Read book chapters!

In class exercises: These are small questions, usually solved examples from book, to familiarize you with basic concepts. Usually exams and assignments will NOT have these questions.

Problems: These are practical real-time questions (usually assignments and exams)

Prior to exam, I will discuss exam format. Previous year’s exam will not be shared in class. Remember, this class is not about cramming but understanding concepts.

Campus Resources: Health and Wellness U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit umatter.ufl.edu/ to refer or report a concern and a team member will reach out to the student in distress. Counseling and Wellness Center: Visit counseling.ufl.edu/ or call 352-392-1575 for information on crisis services as well as non-crisis services. Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or visit shcc.ufl.edu/. University Police Department: Visit police.ufl.edu/ or call 352-392-1111 (or 9-1-1 for emergencies). UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; ufhealth.org/emergency-room-trauma-center.

Academic Resources E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 or via e-mail athelpdesk@ufl.edu. Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services career.ufl.edu/. Library Support: cms.uflib.ufl.edu/ask various ways to receive assistance with respect to using the libraries or finding resources. Teaching Center: Broward Hall, 352-392-2010 or to make an appointment 352-392-6420. General study skills and tutoring. [teachingcenter.ufl.edu/Writing Studio:2215 Turlington Hall, 352-846-1138](http://teachingcenter.ufl.edu/Writing_Studio:2215_Turlington_Hall,). Help brainstorming, formatting, and writing papers. writing.ufl.edu/writing-studio/ Student Complaints On-Campus: sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/ On-Line Students Complaints: distance.ufl.edu/student-complaint-process/

The university’s honesty policy regarding cheating, plagiarism, etc. Suggested wording: UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students 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.” The Honor Code (sccr.dso.ufl.edu/process/student-conduct-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

