ENR 4285
Watershed Hydrology
Spring Semester 2019

Class Time/Location: Tues/Thurs 11:30am – 12:25pm Kottman 333
Fri 9am – 12pm (Kottman 114 computer lab / Heffner Wetlands)

Instructor: Dr. Rachel Gabor, gabor.40@osu.edu, 473b Kottman Hall
Office Hours: Monday 1:30-4pm, Thursday 1-3pm or by appointment (@Kottman 473b)

Teaching Assistant: Kristen Diesburg, diesburg.1@osu.edu, Heffner Building (Wetlands)
Office Hours: Friday 1-3pm or by appointment (@Wetlands)

Instructional Associate, SENR: Kim Winslow, winslow.52@osu.edu, Heffner Building (Wetlands)

Course Description:

In this course we will study what drives the movement of water and how water interacts with the landscape at the watershed/catchment scale. By the end of the semester students will be able to:

- Utilize basic scientific principles to describe controls of the hydrologic cycle on a watershed scale
- Understand the relationship between water and the landscape and how the landscape drives watershed hydrologic functioning
- Use multiple physical and chemical techniques to characterize the hydrology of a watershed
- Utilize the scientific method and conduct data analyses to investigate the hydrologic functioning of watersheds
**Texts:**

**Main Text:**
- Hendriks, Martin. 2010. *Introduction to Physical Hydrology*, Oxford University Press (on reserve at the FAES library)

**Supplemental Texts (for reference):**
- Dingman, S. Lawrence. *Physical Hydrology*. Waveland Press Inc. (on reserve at the FAES library)
- Occasional supplementary reading will be posted on Carmen.

**Carmen / Course Communication:**

Carmen will be used throughout the semester to post assignments and make announcements so please make a habit to check both it and your osu.edu email regularly. A calendar on Carmen will also be updated with, readings, assignments, seminars of interest etc. There is also a discussion board on Carmen which can be utilized for course questions that the TA and I will check regularly – feel free to use it to interact with your classmates.

I will make every effort to respond to emails within 24 hours of receiving them, but do not always check email on weekends.
Course Evaluation:

Your grade for the course will consist of:

45% Homework (12 total) 45% Labwork (10-12 total) 10% Final Exam

Homework Assignments: There will be weekly homework assignments throughout the semester, due each Thursday. These will largely consist of problem sets related to the material covered in class. Homework assignments will be challenging so please start them early so you have time to ask for help.

Each assignment will be handed back in lab on Friday with either a star (i.e.: you got it 100% right) or a “redo”, indicating you have one chance to fix your mistakes and turn the assignment back in on the following Tuesday. Each redo attempt must be stapled on top of the original homework.

Homework will be assessed on both the write-up and the final answer. You must clearly show your work so someone else can easily follow it. Units must be written next to every number in every step of your analysis, unless it is a unit-less number.

Lab Assignments: The first 8 – 9 weeks of the semester lab will meet indoors, either in the computer lab in 114 Kottman where we will use Microsoft Excel to practice hydrologic data analysis, or in the classroom at the Heffner Building of the Olentangy River Wetlands Research Park. Some weeks there will be a pre-lab activity for you to complete before lab starts. Later in the semester we will meet outside. Each lab activity will have an associated write-up due the following Friday.

Final Exam: The final exam will be a 30 minute oral exam taking place in Dr. Gabor’s office during Finals week. A sign-up schedule will be posted later in the semester.

A sample week of assignments (first weeks of semester):

<table>
<thead>
<tr>
<th>Tuesday</th>
<th>Thursday</th>
<th>Friday</th>
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<tbody>
<tr>
<td>Jan 15</td>
<td>Jan 17</td>
<td>Jan 18</td>
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<tr>
<td></td>
<td>Turn in HMWK 1</td>
<td>• HMWK 1 returned in lab</td>
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<td></td>
<td></td>
<td>• Turn in lab 1 report</td>
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<td></td>
<td></td>
<td>• Work on lab 2 (write-up due next week)</td>
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<tr>
<td>Jan 22</td>
<td>Jan 24</td>
<td>Jan 25</td>
</tr>
<tr>
<td>Turn in redo of HMWK 1</td>
<td>Turn in HMWK 2</td>
<td>• HMWK 2 returned in lab</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Turn in lab 2 report</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Work on lab 3 (write-up due next week)</td>
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**Attendance and Late Work:**

Attendance is expected, especially for lab days, but I understand it is sometimes necessary to miss class (and please don’t come to class if you are sick and likely to be contagious). As a rule I do not need to see doctor’s notes, funeral notices, etc. but I reserve the right to request documentation.

Because of the constant rotation of new assignments and redo assignments, students are encouraged to do everything possible to stay on top of assignment deadlines.

If you must miss class or need flexibility with a deadline, please ask before the due date (if at all possible) which gives us more flexibility to work with you. Please arrange with Kristen Diesburg for how to submit that day’s assigned work/decide on an extension. Extensions requested after the deadline will be considered on a case-by-case basis.

**Class Policies:**

1) There will likely be times you find an aspect of this course particularly challenging. I invite you to come to office hours for help. The sooner you bring forth your concerns, the sooner I can help – there is very little that can be done at the end of the semester.

2) Sometimes mistakes happen during grading. If you feel that your grade on an assignment is incorrect, please submit in writing an explanation of why you wish to appeal your grade within one week of the assignment being returned. Final course grades are non-negotiable outside of clerical error.

3) You are encouraged to work with other classmates on assignments. However you should do the write-ups entirely on your own, in your own words, to ensure you fully understand the solution.

4) Please respect me and your fellow students and refrain from distracting behavior in class including private discussions, sleeping, phone usage, etc. If you have a laptop out to take notes please sit in the back of the room to minimize distractions to those around you (trust me, if you are reading your facebook page, everyone around you is reading your facebook page).

5) Life happens. College is a stressful time and the world is a chaotic place. If something is happening in your life that will impact your full participation in the course, please utilize campus resources and give me a heads up so we can find how to best help you succeed.
Ohio State’s academic integrity policy

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University’s *Code of Student Conduct*, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University’s *Code of Student Conduct* and this syllabus may constitute “Academic Misconduct.”

If I suspect that a student has committed academic misconduct in this course, I am obligated by University Rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the University’s *Code of Student Conduct* (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

Accessibility accommodations for students with disabilities

Requesting accommodations

If you would like to request academic accommodations based on the impact of a disability qualified under the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973, contact your instructor privately as soon as possible to discuss your specific needs. Discussions are confidential.

In addition to contacting the instructor, please contact the Student Life Disability Services at 614-292-3307 or ods@osu.edu to register for services and/or to coordinate any accommodations you might need in your courses at The Ohio State University.

Go to [http://ods.osu.edu](http://ods.osu.edu) for more information.

Statement on Title IX

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at [http://titleix.osu.edu](http://titleix.osu.edu) or by contacting the Ohio State Title IX Coordinator, Kellie Brennan, at titleix@osu.edu. Please remember that OSU faculty are mandatory reporters.
Diversity and Discrimination

The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. We are committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach his or her own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.

Class rosters are provided to the instruction with the student’s legal name. I will gladly honor your request to address you by a chosen name and pronoun. Please advise me of this preference so I may make appropriate changes to my records and address you correctly.

Student Resources

There are many resources on campus devoted to assisting students personally and academically. Please do not hesitate to utilize them if you find you need. Some include:

Counseling and Consultation Service: https://ccs.osu.edu/

Ohio State Writing Center: https://cstw.osu.edu/writing-center

Dennis Learning Center: http://dennislearningcenter.osu.edu/

Office of Diversity and Inclusion: https://odi.osu.edu/

OSU Libraries: https://library.osu.edu/

Buckeye Food Alliance: https://www.buckeyefoodalliance.org/

Mathematics and Statistics Learning Center: https://mslc.osu.edu/