

PGEOG 33200 and 70152/EES 745 - Hydrology
Fall 2018
Monday and Wednesday 4:10 pm-5:25 pm, HN1028

Contact Information

Instructor: Dr. Wenge Ni-Meister
Email: Wenge.Ni-Meister@hunter.cuny.edu
Office: HN1029
Office Phone 212-772-5321
Office hours Wednesday: 3:00 pm-4:00 pm or by appointment
Depart. Information HN1006, Phone: 212-772-5265

Prerequisites: PGEOG13000 -Weather and Climate or permission from the instructor

Textbooks:

(Required) Elements of Physical Hydrology, 2nd edition, George M. Hornberger, Patricia L. Wiberg, Jeffrey P. Raffensperger, Paolo D'Odorico, Johns Hopkins University Press; (October 23, 2014), ISBN-13: 978-1421413730 (GMH) ISBN-10: 1421413736

(Optional) **Applied Principles of Hydrology** (3rd Edition), John C. Manning, (Prentice Hall Earth Science Series) (Paperback), ISBN-10: 0135655323, # ISBN-13: 978-0135655320. (JCM)

Order online:

<http://hunter.textbookx.com/institutional/index.php?action=browse#books/1738249/>

Course Description:

The course is designed to provide the basic understanding of how water on the Earth moves, distributes, circulates and interacts with the environment. We will introduce the hydrological processes including precipitation, evapotranspiration (evaporation and transpiration), soil water, ground water, and runoff, which form the complete water cycle at global, regional and watershed scales. We will also cover some topics on how water responds to the environmental changes and strategies of integrated water resources management.

Learning Outcomes

At the end of this course, students will

- Identify and define the basic terms and concepts of hydrological processes, water cycle and climate effect on water resources
- Access, manipulate and analyze hydrological data using Excel or geospatial tools.
- Transform their hydrology knowledge learned in class to analyze current research findings in hydrology and summarize and present and summarize their findings

Course Materials All the course materials will be distributed through Hunter's Blackboard.

Grading

Homework	50%
Chapter Quizzes	10%
Final Exam	40%

Homework: There will be four assignments for the course. Each counts for 12.5% of your total grade.

Quizzes: There will be chapter quizzes over the semester.

Final Exam will be in research project presentation format. Graduate students are required to conduct independent research project on hydrology and climate. Undergraduate students have the choice to conduct your own research project or summarize research work published in peer-reviewed journals.

On the exam day, each student is required to give a 3-5 minutes presentation to the class and to submit a term paper of 5-10 pages in length, 12 point font/double spaced, including figures. Both the paper and the presentation should include the following components:

- Introduction – Statement of the problem
- Data sets/study area
- Research method
- Research results
- Conclusion and discussion
- Bibliography

Grading Policy

Grading will following Hunter College policy as outlined.

<http://catalog.hunter.cuny.edu/content.php?catoid=22&navoid=2774> for graduate students and

<http://catalog.hunter.cuny.edu/content.php?catoid=23&navoid=3507> for undergraduate students.

I do not give incompletes (IN) except under the most extraordinary, and documented, circumstances. You must contact me within 48 hours of the final exam and request IN as a grade. At that time you will schedule a date to meet with me at the college and complete a Contract to Resolve Incomplete Grades. Otherwise, I will average the grades I have for you and record you the grade you have earned.

If you miss an exam, you must (1) contact me within 48 hours of the missed exam, (2) present acceptable documentary evidence for your absence, and (3) be available for the make-up exam (Note: there will be one make-up exam day at the end of the semester held outside of class for those eligible). A make-up exam covers the same material as the regular exam but will not be the same exam given as scheduled. (i.e. **DON'T MISS AN EXAM**).

Resources (include all that apply)

- All class material will be posted on Bb.

Essential Policy Information:

- Attendance/lateness policy: I expect to see you at 4:10pm-5:25pm, Monday and Wednesday in HN1028 unless I receive acceptable documentary evidence for your absence ahead of time, otherwise you will be marked with missing a class.
- Late work/missed tests/Incompletes: The last day to receive the required course work is Dec. 12, unless I receive documentary evidence for your tardiness.
- Email Policy
 - Please use PGEOG 33200 Hydrology or PGEOG 70152 Hydrology in the subject line when you email me. I do not answer email with insufficient subject lines
 - Please sign your full name to any message. I do not answer unsigned email messages.
 - Students' email will be responded to within 24 hours. Please note there will be a delay for messages sent over the weekend or during non-business hours.

Hunter College Statement on Academic Integrity

Hunter College regards acts of academic dishonesty (e.g., plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offenses against the values of intellectual honesty. The College is committed to enforcing CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures. Plagiarism, dishonesty, or cheating in any portion of the work required for this course will be punished to the full extent allowed according to Hunter College regulations.

ADA Policy

In compliance with the American Disability Act of 1990 (ADA) and with Section 504 of the Rehabilitation Act of 1973, Hunter College is committed to ensuring educational parity and accommodations for all students with documented disabilities and/or medical conditions. It is recommended that all students with documented disabilities (Emotional, Medical, Physical, and/or Learning) consult the Office of AccessABILITY, located in Room E1214B, to secure necessary academic accommodations. For further information and assistance, please call: (212) 772- 4857 or (212) 650-3230.

Hunter College Policy on Sexual Misconduct

In compliance with the CUNY Policy on Sexual Misconduct, Hunter College affirms the prohibition of any sexual misconduct, which includes sexual violence, sexual harassment, and gender-based harassment retaliation against students, employees, or visitors, as well as certain intimate relationship. Students who have experienced any form of sexual violence on or off campus (including CUNY-sponsored trips and events) are entitled to the rights outlined in the Bill of Rights for Hunter College.

- a. Sexual Violence: Students are strongly encouraged to immediately report the incident by calling 911, contacting NYPD Special Victims Division Hotline (646-610-7272) or their local police precinct, on contacting the College's Public Safety Office (212-772-4444)
- b. All Other Forms of Sexual Misconduct: Students are also encouraged to contact the College's Title IX Campus Coordinator, Dean John Rose (jtrose@hunter.cuny.edu or 212-650-3262) of Colleen Barry (colleen.barry@hunter.cuny.edu or 212-772-4534) and seek complimentary services through the Counseling and Wellness Services Office, Hunter East 1123.

CUNY Policy on Sexual Misconduct Link: <http://www.cuny.edu/about/administration/offices/la/Policy-on-Sexual-Misconduct-12-1-14-with-links.pdf>

Syllabus Change Policy

- Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice.
- Any changes will be updated through Bb.

Tentative Daily Schedule and Readings

Week	Date	Topic	Homework/Readings
Week 1	Aug. 27	Overview of the course	GMH1
	Aug. 29	Introduction to Hydrology	GMH1
Week 2	Sept. 3	Labor Day, College is Closed	
	Sept. 5	Classes follow a Monday schedule Basic Properties of Water	JCM2
Week 3	Sept. 10	No classes	
	Sept. 12	Precipitation	GMH2/JCM3&6
Week 4	Sept. 17	Precipitation	GMH2/JCM3&6
	Sept. 19	No Classes Scheduled	
Week 5	Sept. 24	Evapotranspiration	GMH2/JCM3&6
	Sept. 26	Evapotranspiration	GMH2/JCM3&6
Week 6	Oct. 1	Infiltration and Soil Water	JCM5
	Oct. 3	Infiltration and Soil Water	JCM5
Week 7	Oct. 8	College is closed / No Classes Scheduled	
	Oct. 10	Infiltration and Soil Water	JCM5
Week 8	Oct. 15	Infiltration and Soil Water	JCM5
	Oct. 17	Infiltration and Soil Water	JCM5
Week 9	Oct. 22	Ground Water	GMH5,6/JCM Ch7
	Oct. 24	Ground Water	GMH5,6/JCM Ch7
Week 10	Oct. 29	Ground Water	GMH5,6/JCM Ch7
	Oct. 31	Ground Water	GMH5,6/JCM Ch7
Week 11	Nov 5	Surface Water – Runoff and Stream Flow	GMH5,8,9/JCM8
	Nov 7	Surface Water – Runoff and Stream Flow	GMH5,8,9/JCM8

Week 12	Nov 12	Surface Water – Runoff and Stream Flow	GMH5,8,9/JCM8
	Nov 14	Surface Water – Runoff and Stream Flow	GMH5,8,9/JCM8
Week 13	Nov 19	Surface Water – Runoff and Stream Flow	GMH5,8,9/JCM8
	Nov 21	Surface Water – Runoff and Stream Flow	GMH5,8,9/JCM8
Week 14	Nov. 26	Urban Hydrology – NYC Water	
	Nov. 28	Urban Hydrology – NYC Water	
Week 15	Dec 3	Hydrological Responses to Environmental Change	
	Dec 5	Hydrological Responses to Environmental Change	
Week 16	Dec. 10	Final Project Presentation	
	Dec. 12	Final Project Presentation	
Week 17	Dec. 19	Final Exam (Final Paper Due)	