



Department of Civil and
Environmental Engineering

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

College of Engineering
DEPARTMENT OF CIVIL & ENVIRONMENTAL ENGINEERING

CEE 598: GLOBALIZATION OF WATER

Professor Megan Konar

Fall 2023

Professor: Megan Konar

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Class Time: Tuesdays/Thursdays 2:00pm – 3:20pm

Class Location: 2311 Newmark Civil Engineering Building

Office Hours: Wednesdays 2:00pm – 3:00pm

Type: Hybrid class, both in-person and online

Asynchronous lecture recordings will be posted to MediaSpace:

<https://mediaspace.illinois.edu/channel/Globalization+of+Water+%28CEE+598+GW%29+%28CEE+598+GWO%29+Fall+2023/310158722>

COURSE DESCRIPTION

This course will focus on water, food, and trade at the global scale. The course draws from hydrology, engineering, economics, causal inference, and complex systems analysis. This class will enable graduate students to understand and contribute to cutting edge research.

The course is composed of the following primary topics: (1) global water resources, (2) water footprint accounting, (3) network statistics, and (4) causal inference. The class is a combination of lectures and paper presentations/discussion. This enables the course to focus on the state-of-the-art in the literature and enables students to develop scientific research comprehension and communication skills. Data analysis and coding are skills developed through the assignments and course project.

TEXTBOOKS

Globalization of Water: Sharing the Planet's Freshwater Resources by Arjen Y. Hoekstra and Ashok K. Chapagain, ISBN: 978-1-405-16335-4

Social and Economic Networks by Matthew O. Jackson, ISBN: 978-0691148205

Mostly Harmless Econometrics: An Empiricist's Companion by Joshua D. Angrist and Jorn-Steffen Pischke, ISBN: 978-0691120355

ILLINOIS CANVAS

Canvas will be used to post a variety of class materials, including homework assignments, scientific papers, lecture materials, and grades.

ILLINOIS MEDIASPACE

MediaSpace will be used to post lectures for online students. Lectures will be asynchronous for students to watch at their convenience.

ZOOM

Zoom will be used for online students to give their paper presentations and final project presentations.

GRADING

Attendance & Participation	10%
Paper presentation	20%
Assignments	35%
Final project	35%

ATTENDANCE & PARTICIPATION

Attendance and participation are part of your grade. Each person has 3 "free" class absences.

In-class students: Students who attend the class in person should sign the attendance sheet at the start of each class to register their attendance. It is also important to participate in class activities. If you attend in-person then you do not need to answer the online participation questions.

Online students: Students who are taking the course online can watch the lectures and participate asynchronously. By midnight on Monday please share your reflections from the think-pair-share and group discussion activities from the two lectures in the preceding week.

In-person students who need to miss a class can receive full participation points by watching the recorded lecture for the day that they missed and submitting their written discussion from the day that they missed before midnight on the following Monday.

PAPER PRESENTATIONS

The goal of the in-class presentations is to gain experience reading, understanding, and communicating dense scientific research. The main goal is to effectively communicate to your peers. For this reason, peer review will be used as part of your evaluation. Students in the class will be asked to grade each presentation along two dimensions: (1) clarity and (2) engagement.

ASSIGNMENT POLICIES

Assignments will take place throughout the semester to reinforce the technical and mathematical concepts from class. The goal of assignments is to enhance understanding of course content and to develop computational skills.

Students may work in groups (of up to 3 students) or individually. If you work in a group, please be sure to list all of the names of each student in the group. Each student is responsible for understanding the material on each assignment.

Guidelines will be provided in class. Assignments should be submitted via the course Canvas website. Assignments are due at midnight on the due date. There will be a 24-hour grace period. Assignments will not be accepted after the 24-hour grace period.

Copying or other academic integrity violations will not be tolerated and will result in a zero.

CLASS PROJECT

As part of this class you will work on a class project. The project should strive to be something novel when possible. This can be a solo or 2-3 person team effort. I will solicit project proposals midway through the semester and meet with each student individually or in small groups to provide personalized feedback. The last few classes will be dedicated for student presentations of their class project. The final project will be due on the last day of exams.

ACADEMIC INTEGRITY

The University of Illinois at Urbana-Champaign Student Code should also be considered as a part of this syllabus. Students should pay particular attention to Article 1, Part 4: Academic Integrity. Read the Code at the following URL: <http://studentcode.illinois.edu/>.

Academic dishonesty may result in a failing grade. Every student is expected to review and abide by the Academic Integrity Policy: <https://studentcode.illinois.edu/article1/part4/1-401/>. Ignorance is not an excuse for any academic dishonesty. It is your responsibility to read this policy to avoid any misunderstanding. Do not hesitate to ask the instructor(s) if you are ever in doubt about what constitutes plagiarism, cheating, or any other breach of academic integrity.

MENTAL HEALTH

Significant stress, mood changes, excessive worry, substance/alcohol misuse or interferences in eating or sleep can have an impact on academic performance, social development, and emotional wellbeing. The University of Illinois offers a variety of confidential services including individual and group counseling, crisis intervention, psychiatric services, and specialized screenings which are covered through the Student Health Fee. If you or someone you know experiences any of the above mental health concerns, it is strongly encouraged to contact or visit any of the University's resources provided below. Getting help is a smart and courageous thing to do for yourself and for those who care about you.

- Counseling Center (217) 333-3704
- McKinley Health Center (217) 333-2700
- National Suicide Prevention Lifeline (800) 273-8255
- Rosecrance Crisis Line (217) 359-4141 (available 24/7, 365 days a year)

If you are in immediate danger, call 911.

*This statement is approved by the University of Illinois Counseling Center

COMMUNITY OF CARE

As members of the Illinois community, we each have a responsibility to express care and concern for one another. If you come across a classmate whose behavior concerns you, whether in regards to their well-being or yours, we encourage you to refer this behavior to the Student Assistance Center (217-333-0050 or <http://odos.illinois.edu/community-of-care/referral/>). Based on your report, the staff in the Student Assistance Center reaches out to students to make sure they have the support they need to be healthy and safe.

Further, as a Community of Care, we want to support you in your overall wellness. We know that students sometimes face challenges that can impact academic performance (examples include mental health concerns, food insecurity, homelessness, personal emergencies). Should you find that you are managing such a challenge and that it is interfering with your coursework, you are encouraged to contact the Student Assistance Center (SAC) in the Office of the Dean of Students for support and referrals to campus and/or community resources.

STUDENTS WITH DISABILITIES

To obtain disability-related academic adjustments and/or auxiliary aids, students with disabilities must contact the course instructor as soon as possible and provide the instructor with a Letter of Academic Accommodations from Disability Resources and Educational Services (DRES). To ensure that disability-related concerns are properly addressed from the beginning, students with disabilities who require assistance to participate in this class should apply for services with DRES and see the instructor as soon as possible. If you need accommodations for any sort of disability, please speak to me after class, or make an appointment to see me or see me during my office hours. DRES provides students with academic accommodations, access, and support services. To contact DRES, you may visit 1207 S. Oak St., Champaign, call 217-333-1970, e-mail disability@illinois.edu or visit the DRES website at <http://www.disability.illinois.edu/>. Here is the direct link to apply for services at DRES, <https://www.disability.illinois.edu/applying-services>.

DISRUPTIVE BEHAVIOR

Behavior that persistently or grossly interferes with classroom activities is considered disruptive behavior and may be subject to disciplinary action. Such behavior inhibits other students' ability to learn and an instructor's ability to teach. A student responsible for disruptive behavior may be required to leave class pending discussion and resolution of the problem and may be reported to the Office for Student Conflict Resolution (<https://conflictresolution.illinois.edu>; conflictresolution@illinois.edu; 333-3680) for disciplinary action.

EMERGENCY RESPONSE RECOMMENDATIONS

Emergency response recommendations and campus building floor plans can be found at the following website: <https://police.illinois.edu/em/run-hide-fight/>. I encourage you to review this website within the first 10 days of class.

RELIGIOUS OBSERVANCES

Illinois law requires the University to reasonably accommodate its students' religious beliefs, observances, and practices in regard to admissions, class attendance, and the scheduling of examinations and work requirements. Students should complete the [Request for Accommodation for Religious Observances](#) form should any instructors require an absence letter in order to manage the absence. In order to best facilitate planning and communication between students and faculty, students should make requests for absence letters as early as possible in the semester in which the request applies.

SEXUAL MISCONDUCT REPORTING OBLIGATION

The University of Illinois is committed to combating sexual misconduct. Faculty and staff members are required to report any instances of sexual misconduct to the University's Title IX and Disability Office. In turn, an individual with the Title IX and Disability Office will provide information about rights and options, including accommodations, support services, the campus disciplinary process, and law enforcement options.

A list of the designated University employees who, as counselors, confidential advisors, and medical professionals, do not have this reporting responsibility and can maintain confidentiality, can be found here: wecare.illinois.edu/resources/students/#confidential.

Other information about resources and reporting is available here: wecare.illinois.edu.