ILLINOIS | 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 2025

Class Time: Mondays/Wednesdays 2:00pm – 3:20pm
Class Location: 1311 Newmark Civil Engineering Building
Office: 3022 Civil Engineering Hydrosystems Lab
Office Hours: Fridays 11:00am – 12:00pm, or by appointment
Type: Hybrid class, both in-person and online

Course website: http://canvas.illinois.edu
Lecture recordings: https://mediaspace.illinois.edu

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. Computation and communication skills are 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	20%
Paper presentation(s)	20%
Assignments	30%
Final project	30%

ATTENDANCE & PARTICIPATION

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

In-class students: It is important to participate during class. 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 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: clarity + engagement.

ASSIGNMENT POLICIES

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

LATE WORK POLICY

Late assignments will not be accepted. These are group assignments, which should be a fun and collaborative exercise. However, I expect your team to meet the deadline and for every team member to make a good contribution. Any team disputes should be resolved prior to the deadline. With prior approval of the instructor, students who do not contribute to their group work may submit their own individual assignment up to one week late for up to 50% credit. Students are welcome to submit their own individual assignment prior to the deadline for full credit.

CLASS PROJECT

As part of this class you will work on a class project. The project should relate to a class topic and strive to build on the related literature. This can be an individual or small group project (of up to 3 students). Project proposals will be solicited midway through the semester and meetings will be scheduled for discussion and personalized feedback. The last few classes will be dedicated to project presentations. The project written report will be due on the last day of exams.