

Biology 262/Env 274, Fall 2022 M/W 3:30-4:45 PM BioSci 113 (Ver. 8/26/2022)
Cities and Trees/People, Plants, and Pollution/Constructed Climates
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With most Americans living in cities or suburbia, an understanding of urban environments becomes more important for making good decisions concerning our future needs. My service on a few of Durham's city and county commissions led to the realization that I needed more information to make a more compelling argument for greater public spending on trees and urban nature. What are the unique features of urban environments? What role does "nature" play in cities? What financial arguments underpin allocating public funds to parks and greenspace versus schools and security? Do trees help with stormwater? Do urban trees capture much carbon while considering their costs? Do urban trees help cool the city? Does urban nature improve citizens' lives? Do all socioeconomic groups have equal access to "urban open space"? As a result of seeking answers to those questions, I developed this course and the accompanying books, *Constructed Climates* (2011) and *Stormwater* (2016), published by UChicago Press. Both can be purchased, but they're also available electronically for free at the links below or on the course Sakai site:

CC: <http://people.duke.edu/~wgw/ConClim/index.html>

SW: <http://search.library.duke.edu/catalog/DUKE007764596>

While addressing these questions in this course we will learn about the environmental properties of cities, including urban heating and cooling, stormwater, pollution and health, energy and carbon, economic value, and socioeconomic inequities in environmental amenities.

I expect students to preview the lecture notes and finish the required readings for each day's readings. Readings come from my books and one or two primary publications relevant to the lecture topics. Your advance preparation will allow for more discussions and clarifications of that material, as well as discussion of related topics. Please do not hesitate to contact me if you have trouble with the materials or have suggestions for improvements.

I can hold face-to-face office hour meetings on M/W 12-2 and I'm happy to meet via Zoom on other days. All meetings are by appointment -- please send me an email to schedule. Feel free to get together as groups for Zoom or F2F meetings.

The course grade involves four equal parts. There are three equally weighted multiple choice Sakai exams. A missed exam can be made up within *one week* of the exam date if notification of the absence prior to the exam is given through a Dean's Excuse. **The student must contact the Professor to schedule a make-up exam.** It will be a different exam than the one taken by the class. If an exam is not made up, then it will be given a score of zero. Cheating on exams will result in a zero for that exam. There is no final exam.

The fourth part of the grade involves the completion of a daily question sheet for the primary publications we read each day. Each sheet will be graded on a 4 point scale (0-3) with the lowest *two* scores dropped. Sheets must be turned in via Sakai and timestamped before class. No collaboration is allowed on the completion of these sheets, and duplicated responses will be considered acts of plagiarism.