

# Sustainable Cities ENVI 294

## Urban Environmental Science\*

Macalester College

Spring 2023

M·W·F 2:20 - 3:20 pm

OLRI 243

**COURSE GOALS:** By the conclusion of this class students will...

**01.** Understand the concepts of sustainability, ecosystem services, resiliency, infrastructure, green infrastructure, conservation, environmentalism, climate change.

**02.** Explore the origins of modern urban spaces, development forces, and urban ecological impacts. Understand the impacts of urban development on the environment, and the impacts of a healthy ecological system on urban spaces.

**03.** Connect the past environmental and urban growth to our contemporary social value system and discuss how a continuation of the development of these concerns is rooted in the history of the subjects.

**04.** Discuss the disproportionate burden placed on certain seg-

ments of society to bear the brunt of these costs and forces.

**05.** Develop an understanding of the dynamic moment we are currently situated in and how it shapes our future options. What is our current impact on the world we exist in? We often look to the past and judge harshly the value systems that allowed for decisions we see as egregious—what might we be judged on in the future?

**06.** Recognize the impacts of Climate Change (the big one), water scarcity, mass extinctions, energy demands—these and other forces will have strong impacts on our lives and those that come after us. How do we prepare and adapt? What tools are in our tool-kit?

\* This course will be somewhat different from the usual version of this course.

Professor:

**Tony Siebenaler-Ransom**

Dept of Environmental Studies

Office: Olin-Rice 248

[Tsiebena@macalester.edu](mailto:Tsiebena@macalester.edu)

Please call me "Tony" or if you are feeling more formal, you can call me Professor S-R.

### Drop-in Office Times:

I will be in my office from 1:00-2:00 on MWF. You can stop by and chat about anything during that time - related to class or not! I can also be available other times, as I know these hours don't match everyone's schedule. Just email me to set up a time to talk.

## SECTIONS OF THE COURSE

**01. LEXICON** What are we talking about? What are the concepts? We will discuss how our approach to and understanding of these concepts frames up the discussion.

**02. LOOKING BACK** How did we get to this place? It is critical that we understand the forces and events that play a large role in shaping not only the environment around us, but also the way that we as a society value and engage with these histories.

**03. LOOKING AROUND** Where are we at now - globally, locally, technologically, socially? What areas are we succeeding and in what areas are we struggling? As a society, how are our values replicated and enforced on the landscape and the environment.

**04. LOOKING AHEAD** Where are we headed and what concerns are we to be monitoring? What do we need to prepare for? What tools do we have to change our situation or plot better course?



## TEXTBOOK

There is no required textbook for this class. All of the readings will be accessible through Moodle. If you have trouble accessing any of the PDFs or need them in an alternative format please let me know.

## DISCREPANCY

If you notice any discrepancy in assignment totals or math errors, please notify me immediately. Assignments are much easier to track down in a week or two rather than at the end of the semester. If there is a problem with Moodle tracking submissions, we want to figure it out ASAP.



Our Moodle site is not just a crucial resource, but is also our primary point of contact for this class - any announcements will be posted here first.

All of our readings and an approx schedule, as well as links to all of our readings and assignments

Please familiarize yourself with the Moodle site and let me know promptly if you have any questions or run into any problems. If you can't access something, it is likely no one else can either!

## GRADING

Your grade for the semester will largely be based on your engagement with the readings and will be based on the number of D.R.E.s you have submitted. All assembled they are about the equivalence of a 8 page paper spread out across the entire semester.

Do not put them off!

The grading in this course is focused on engagement and reflection, not your ability to remember trivia.

I will not be assigning them each a grade and adding up points, but instead they are marked complete or not and count toward the total.

The final test will ask you to apply analysis and reflection of the information we've covered. It will be essay format and will not require you to be timed or memorize answers. You will be aiming for a good solid well thought out responses-- not perfection. We'll discuss more when we get to the end of the semester.

Attendance & participation are factored into the grade as well and count for ½ of a grade point up (but not down)

If you want more of a classic grade explanation: The D.R.E.s are worth the equivalent of about 85% of your grade. The final is about 10% and attendance and participation is about 5%. But you get the credit for doing the work, and the goal is to reward you for engagement and learning-- not regurgitation.

## ATTENDANCE

Attendance plays an essential role in learning; you are warmly invited, encouraged, and expected to attend all class meetings. Attendance will be important not only for your learning, but also for our ability to build a community together and maintain a sense of connection and commitment to one another during the semester. Your presence in class matters.

I recognize that there are unavoidable circumstances that sometimes make it impossible for you to attend class. If you will not be in class for any reason, it is your responsibility to inform me in advance via email. Students with disabilities should discuss their accommodations with me early in the course to work out a plan that aligns with maintaining course expectations and goals.

Students with any concerns, questions, or need for consideration for flexibility should connect with me as soon as possible to determine an appropriate plan.



## MAX CENTER

The MAX Center is Macalester's academic resource center. Take full advantage of any and all of the excellent resources they provide there, as they are committed to supporting all students to succeed at Macalester.

## PARTICIPATION

Participation is distinct from attendance and is also an essential part of this course. In-class discussions, in-class workshop participation will be factored into your grade. Engaging with the classroom space — including by helping to create an environment where all of us can learn and think well about one another — will also be factored into participation.

It is important to remember that we all have different styles of expression. There can be a lot of anxiety around suggesting or sharing something in an open forum and I understand that. Participation doesn't always mean being the first to raise a hand or even offering the perfect answer. At the front of the room I can see engagement that isn't just verbal.

If you have not been able to participate in a class discussion for any reason but want to demonstrate your active engagement, send me an email after class with a comment or an idea you would have liked to share, but were not able to during class.



## LIBRARY

Working to integrate the disciplinary literature into your research can be a complex process. Consulting with the research and instruction librarians for the discipline(s) in which you are studying will save you time and help you discover better, more scholarly sources. You can make an appointment using the Ask Us page on the library website or email your librarian(s) directly.





## HEALTH & WELL-BEING

Here at Macalester, you are encouraged to make your well-being a priority throughout this semester and your career here. Investing time into taking care of yourself will help you engage more fully in your academic experience. Remember that beyond being a student, you are a human being carrying your own experiences, thoughts, emotions, and identities with you. It is important to acknowledge any stressors you may be facing, which can be mental, emotional, physical, financial, etc., and how they can have an academic impact. I encourage you to remember that you have a body with needs. In the classroom, eat when you are hungry, drink water, use the restroom, and step out if you are upset and need a break. Please do what is necessary so long as it does not impede your or others' ability to be mentally and emotionally present in the course. Outside of the classroom, sleep, moving your body, and connecting with others can be strategies to help you support your personal sustainability at Macalester. If you are having difficulties maintaining your well-being, please don't hesitate to contact me and/or find support from other resources listed below.

### Laurie Hamre Center for Health & Wellness

Leonard Center Room 53, 651-696-6275

(call to make an appointment).

Follow *macalesterhwc* on Instagram.

[www.macalester.edu/healthandwellness/](http://www.macalester.edu/healthandwellness/)



## TITLE IX & SEXUAL MISCONDUCT

Macalester is committed to providing a safe and open learning and living environment for all students, staff, and faculty. Any community member experiencing sexual harassment, sexual violence, relationship violence, or stalking, is encouraged to seek help and support.



Please be aware that as a faculty member, it is my responsibility to report disclosure about sexual harassment, sexual misconduct, relationship violence, and stalking to the Title IX Office. The purpose of this report is to ensure that anyone experiencing harm receives the resources and support they need. I will keep this information private and it will not be shared beyond this required report.

You may also contact Macalester's Title IX Coordinator directly (phone: 651-696-6258 ; e-mail: [titleixordinator@macalester.edu](mailto:titleixordinator@macalester.edu)); she will provide you with supportive measures, resources, and referrals. Additional information about how to file a report (including anonymously) is available on the Title IX website.



If you prefer to speak with someone confidentially, or need 24/7 support, there are resources available on- and off-campus to assist you:

**Counseling Services at the Hamre Center** – Free, Urgent, Phone Counseling is available to Macalester students anywhere in the world, 24/7/365. 651-696-6275, then press or say option 2 when prompted.

# TENTATIVE SCHEDULE

Week

## 01. SYLLABUS & INTRODUCTION

F Introduction Lecture

## 02. BUILDING A LEXICON

M Understanding lenses & language

W Sustainability Workshop

F Externalized Costs, Anthropocene, Resiliency

## 03. WHAT IS A CITY?

M Urban Workshop

W Ecosystem services, Bees, & Trees.

F No Class

## 04. PARIS, PLSS, & PLAINS

M John Locke made me do it.

W Paris sewers

F PLSS, Savannah, and City Forms

## 05. BUFFALO, INDUSTRIAL CITIES, & WILDERNESS

M Robber Barons, Railroads, and Extraction

W The Industrial City: Chicago, Minneapolis

F Conservation v Preservation

## 06. CITY BEAUTIFUL, MODERNISM, AND WWI

M City Beautiful & Olmsted

W WWI, Bauhaus

F Machines á habiter

## 07. MORTGAGES, SUBURBS, & THE EPA

M The 30 yr Mortgage

W Suburbs, Zoning, and the Highway

F The birth of Environmentalism

## 08. THAT'S JUST TOXIC

M What to do when your river catches fire?

W Environmental Gentrification

F Catch up day

## 09. SPRING BREAK - NO CLASS

## 10. URBAN SUSTAINABILITY

M What does that mean today?

W Water Issues - Large Scale

F Water Issues - City Scale

## 11. EAT, LIVE, DRIVE

M Urban Agriculture & Food Access

W Zoning, Density, and Gentrification

F Transportation & Hard Infrastructure

## 12. ENERGY, EQUITY, AND SOLVING THE EQUATION

M Energy Generation

W Equity and Access

F Class Workshop

## 13. LOOKING TO NATURE

M Biophilia, Biomimicry, & Nature-Based

W Rediscovering Parks. Urban Ecology

F Industrial Web

SECTION 1

SECTION 2

SECTION 3

SECTION 4

# DISABILITY SERVICES

Academic accommodations will be provided for qualified students with documented disabilities including but not limited to mental health diagnoses, learning disabilities, Attention Deficit Disorder, chronic medical conditions, visual, mobility, and hearing disabilities.

The earlier in the semester that you connect with me about any accommodations the better I am able to integrate the necessary changes into the course.

If you have a disability, please meet with Disability Services to get me the documentation early in the semester for us to discuss your accommodation plan.

If you have not yet obtained a plan or are unsure if you have a disability that requires accommodation, please contact them: [disabilityservices@macalester.edu](mailto:disabilityservices@macalester.edu), or call 651-696-6275.

# ACADEMIC INTEGRITY

Plagiarism is the presentation of others' thoughts, ideas, or words as your own, and it violates Macalester College's expectation that all members of the community act with academic integrity. For help avoiding plagiarism, visit the Library's Academic Integrity materials here: [www.macalester.edu/library/academicintegrity/](http://www.macalester.edu/library/academicintegrity/)

Academic dishonesty erodes the basic foundations of higher education: exchange, debate, and the thoughtful consideration of what we know, how we know it, and why it matters. It has no place at Macalester or in this course.

Find Macalester's academic integrity policy here: [www.macalester.edu/academicprograms/academicpolicies/academicintegrity/](http://www.macalester.edu/academicprograms/academicpolicies/academicintegrity/)

**14. TROUBLE IN THE SUBURBS**

- M : The future of the Automobile?
- W : The Line - and other futuristic solutions.
- F : TBD

**15. BIG QUESTIONS**

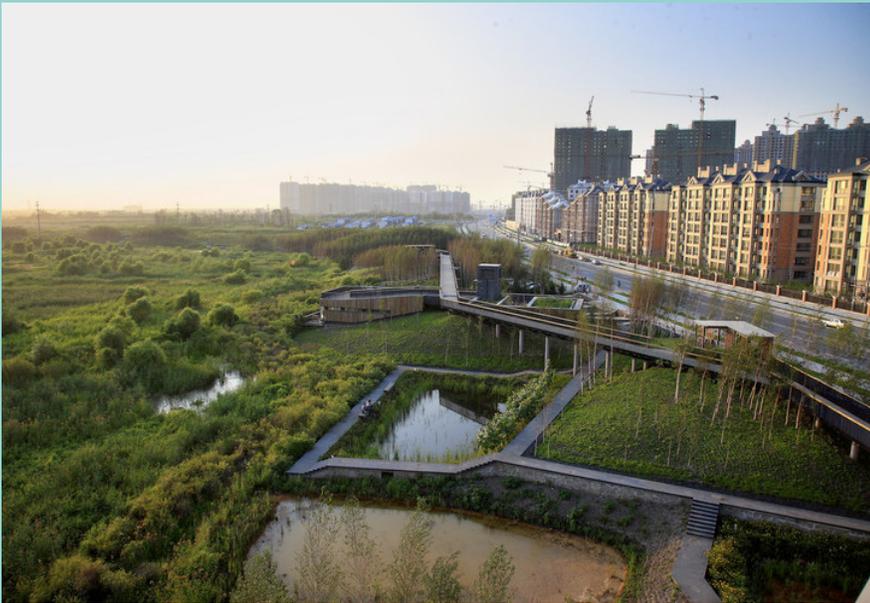
- M : TBD
- W : Decoupling economy and environment.
- F : Climate Justice

**16. REVIEW**

- M : Last day of class - *Take home final given.*

**17. FINALS WEEK**

- M : May 8th - *Take home final due by 12 p.m.*

**INCLUSIVE CLASSROOM**

You are expected to be attentive during class, ask questions if you do not understand something, and to offer your opinion.

You are also expected to listen respectfully to other students and to any guests or the professor.

Macalester considers diversity as indispensable to its academic excellence and the holistic development of its students and is committed to providing a safe climate for all students, faculty, and staff.

All persons shall have equal access to its programs and facilities without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation. In our university community, our commitment to diversity means including, welcoming and supporting the people who live, work and study here. All provide a university experience rich in perspectives and opportunities to learn from one another.

Racism, sexism, homophobia, classism, ageism and other forms of bigotry are inappropriate to express in this class.

