

# ENVI 294

## Sustainable Urban Design

Dept of Environmental Studies  
Fall 2024 · Theater 002  
M·W·F 2:20 pm - 3:20 pm

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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 after class from 3:20-4:20 on MW (and sometimes F).

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 and I am not on campus every day.

Just email me to set up a time to talk.



## SECTIONS OF THE COURSE

### 01. WORDS

What are the concepts and we are talking about? We will discuss how our understanding of these concepts and pre-established values frames up the discussion.

### 02. PARTS

What are the components of the City that we are discussing? How do they get built? What are the challenges of implementing them in the urban environment. How might we adapt the approaches to get a more sustainable and resilient urban environment

### 03. ACTIONS

How do we apply some of the methodologies and approaches discussed in class. Once we understand the hurdles and challenges, how might you adjust and resolve the hurdles that are encountered in the urban landscape

The view that urban spaces are ecologically compromised by human development has been a key tenet in our design of the modern city.

The challenge of transforming the gray infrastructure into a green hybrid is often tripped up by rules, regulations, and deeply ingrained systems that still consider urban ecology to be an oxymoron.

This course will explore this transformation through the lens of urban design, public policy, and urban planning.

It will focus on the practical application and challenges of integrating ecological systems within urban environments. The course is a hands-on investigation into how projects are designed and implemented.

## 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 challenges of implementation of sustainable and resilient design in the urban environment. Understanding the hurdles that prevent the best practices from transforming our cities is a necessary first step to overcoming them.

03.

What are the underlying systems and controls that shape our cities? Zoning, policy, historic land use, health and safety, tradition, social expectation, economic opportunity, unwritten rules; all of these play a strong role in shaping our spaces.

04.

Discuss the disproportionate burden placed on certain segments of society to bear the brunt of these costs and forces. How do we transform the urban fabric without unduly impacting parts of the community and how do we fix past transgressions?

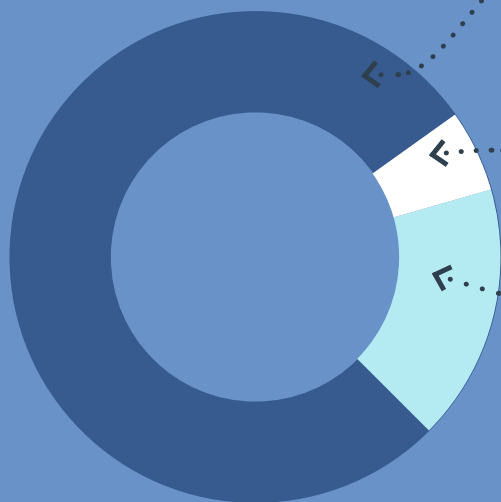
05.

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? If we apply what we have learned, how can we a.) understand proposed ideas better and b.) use the tools to better implement best practices.

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 toolkit?

## COURSE WORK:



D.R.E.s

80%

There are readings assigned for each day of the semester. You will select an engagement from one of 6 options and upload your work to canvas

POLICY DEV

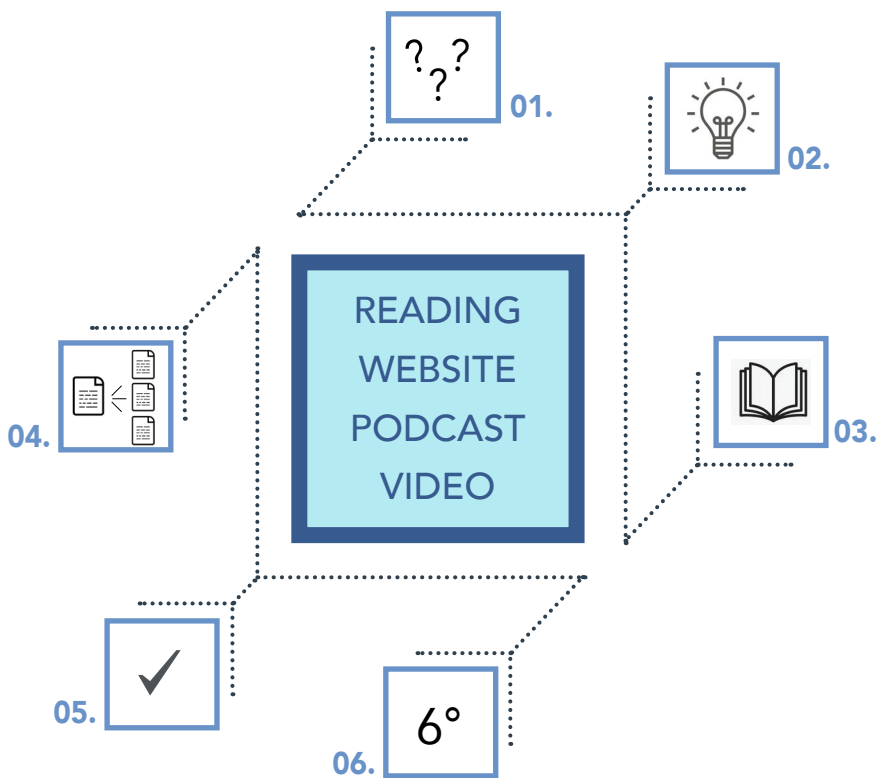
5%

You will have a chance to rewrite and transform a city policy to make it better

RESEARCH PROJECT

15%

The Research Project will be handed out week 2 and will be something you have the whole semester to work on and develop. You will have check-ins to help give you feedback as the semester goes along.



## D.R.E. RESPONSE OPTIONS

01. After reading the article, what 3 questions have come up about the piece that you would want to discuss in class?
02. What was the most interesting information you encountered in the piece you read or was something that you were not aware of before reading the article?
03. What are 3 adjacent topics/discussions that relate or that you now want to search out?
04. Can you find another article/source that agrees with the arguments/topics as presented in the reading? or contrasts?
05. What methods would you use to verify this article? What can you infer from the publication/funding?
06. Six degrees of separation. How does this topic impact your daily life? Connect the dots to something you have done/will do this semester.

## WHAT IS A D.R.E.?

D.R.E. stands for Daily Reading Engagement and makes a cool, easy to remember acronym. After you have read one of the assigned readings, you will select one of the 6 options listed above as a way of engaging with our daily readings.

These will be submitted on Moodle and will be tallied at the end of the semester and the number of them submitted will equal your grade based on the totals below.

- 30 D.R.E.s will get you a B-
- 25 D.R.E.s will get you a C.
- 20 D.R.E.s will get you a C-

These don't need to be very long (only a paragraph), but they should be thoughtful and reflective and demonstrate that you read the piece and, well, engaged with it! (there are examples of good and bad work on the assignment sheet on Canvas).

They are due the day the reading is assigned, but before class-- so DREs for Monday's readings need to be submitted before 2:20 on that Monday.

If you get behind and turn them in a little late, like Halloween day candy on Nov 1st they are 50% off and will only count as ½ D.R.E.

Additionally, there are 3 sections to the semester they need to be turned in during the section for which the readings are assigned--so get the Section 1 DREs in before we have started Section 2. After we have moved to the new section they are no longer available for credit.

The max you can have of any one option is 20, so you must have at least 10 of them spread across the other options as well.

**DO NOT PUT THEM OFF!**

You *do not* have to do one each day, however, if you wait you cause yourself a headache and there may not be enough readings for you to catch up.

The "Daily" in the name isn't just to help make a good acronym. If you do one D.R.E. per class period, you would have 30 at the end of the course (we have around 40 class periods, but we have a few site-visit days and a few workshop days).



# RESEARCH PROJECT

The semester long research project is less work than you are thinking. A better title would be Research Framework and Early Analysis for a Longer Project Later-- but that is a terrible name. This assignment will have 5 sections:

## 1. What is the topic of interest? 1.5 pages

What is the tech, how does it influence the sustainability/resilience of the urban environment.

## 2. Resources and Information - 4 articles, 1 book

Identify articles and books that help explain the basics and help you understand the issue.

## 3. What are the benefits of this tech? 1 page

Why would this be an upgrade from the current standard? How does it transform the urban environment for the better?

## 4. What are the current hurdles? 1.5 pages

Why is the technology not more implemented? What is preventing more adoption?

## 5. Suggest how implementation could be better achieved. 1.5 pages

After all we discuss in this course, you will analyze the topic you have researched and make some arguments for how we might achieve better implementation.



# REWRITING POLICY

After discussing the benefits and challenges of urban trees, we will take a look at what is required in the zoning code and municipal ordinance for tree installation and management in our urban spaces. You will be tasked with thinking about how we can rewrite the policy to achieve a better urban canopy and how to help trees succeed where would provide the most benefit.

# SO WAIT, WHERE'S THE REST OF MY GRADE?

By submitting 30 D.R.E.s you have a B- (or 80%) automatically. That's it. You've put in the work and earned that level of a grade.

Your Policy Assignment is worth ½ a grade letter (or 5%), bringing you to a B (or 85%).

Your Research Project is worth 1 grade letter (or 10%) bringing you to letter, bringing you to an A.

The last 5% is based on attendance and participation which can add points to your total, but not take them away.



## 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.



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!



## INCOMPLETES

Macalester strongly discourages assigning incomplete grades as they often just layer additionally work onto the next semester's load. Students have been requesting them more frequently in the past year and as such it has become necessary to address it more clearly.

Unless a majority of assigned work has already been submitted, an incomplete will not be given. If extenuating circumstances arise, I will direct you to the Dean of Students, and I will consider the Dean's advice when making decisions about giving an incomplete.

## 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.

## DISCUSSION & INCLUSIVE CLASSROOM

The grading in this course is focused on your engagement and reflection with the resources and your engagement in the class, not your ability to remember trivia and reproduce it when called upon.

They are not graded in the traditional sense of being assigned a point value for quality and added up at the end, but instead they are marked as *complete* and count toward the final tally.

The predominant method of learning in this course will be discussion on the topics covered in the readings. Many of the topics we cover will be political and value laden -- this is a good thing! But we cannot

get good course discussion without both a class of prepared students and a commitment to a diversity of voices.

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.



## ACADEMIC INTEGRITY POLICY

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/)

## LIBRARY AND MAX CENTER

Working to integrate the disciplinary literature into your research can be a complex process. Consulting with the research librarians 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.

The MAX Center is Macalester's academic resource center. Take full advantage of any and all of the excellent resources they provide there.

## SEXUAL MISCONDUCT & TITLE IX

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

- W Introduction & Expectations
- F Ten Ways of Seeing

## 02. BUT, WHAT DO YOU MEAN?

- M Ecosystem Services - **Assign: Research Project**
- W Terminology
- F Campus walk

## 03. WHAT IS A CITY?

- M Essential Parts
- W Denizens
- F **No Class - You've got no class**

## 04. WHO RUNS THE WORLD

- M Workshop - **Assign: Research Topic Due**
- W How these controls function
- F Site Walk

## 05. ZONING AND DENSITY

- M Zoning Exercise
- W Density & MPLS 2040
- F Site Visit

## 06. ENVIRONMENTAL JUSTICE

- M Environmental In-justice
- W How do we not do that again?
- F Site Visit

## 07. VOICES

- M Community - **Assign: Research Project Pt 1 Due**
- W Use shapes space, space shapes use
- F **No Class - Midterm Break**

## 08. THE VALUE OF TREES

- M All trees - **Assign: Tree Policy**
- W All the time - **Midterm Grades Due**
- F Site Visit

## 09. URBAN ISSUES

- M Urban Water- Sources
- W Urban Water - Problems
- F Urban Ecology

## 10. MORE URBAN ISSUES

- M Urban Ecology, con't
- W Gray Infrastructure
- F Gray Infrastructure & Power

## 11. ENERGY

- M Mooooorrrreeeee Power
- W Cars
- F Cars II

## 12. POLICY WONK

- M Policy at Scale
- W Policy, deus ex machina
- F How to make policy a tool

SECTION 1

SECTION 2

SECTION 3

# HEALTH & WELL-BEING

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation.

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

Please feel free to approach me if you are feeling overwhelmed or need help finding help.

## 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/)

# DISABILITY ACCOMMODATIONS

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.

**13. THANKSGIVING WEEK**

- M In-Class Workshop Policy & Research Assigns
- W **No Class - Thanksgiving Break**
- F **No Class - Thanksgiving Break**

**14. MACALESTER**

- M How do we use what we have learned? **Policy Due**
- W Campus redevelopment
- F Campus redevelopment

**15. LAST WEEK**

- M In-Class Workshop
- W Last Day of Class

**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.

**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.