

**SSCI 165Lgw (35628R), Sustainability Science in the City**

*Syllabus*

**Units:** 4

**Term Day Time:** Fall 2024

**Lecture:** MWF from 11:00-11:50am

**Labs:** See the Schedule of Classes

**Location:** MRF 340

**Instructor:** Robert O. Vos, Ph.D., GISP

**Office:** AHF B57G

**Regular Office Hours:** Monday and Friday 9:30-10:30am PT.  
Also available by appointment via email.

**Contact Info:** [vos@usc.edu](mailto:vos@usc.edu), 213-821-1311, see the contacts module on Brightspace for Zoom Room

**Laboratory Co-Instructor:** TBD/TBA

**Office:** AHF B55

**Regular Office Hours:** TBD/TBA

**Contact Info:** TBA

**Library Help:** Andy Rutkowski

**Office:** LIPA B40-A

**Office Hours:** Thu 10 am-12 pm

**Contact Info:** [arutkows@usc.edu](mailto:arutkows@usc.edu), see contacts module on Brightspace for Zoom Room

**IT Help:** Myron Medalla

**Office:** AHF B56B

**Contact Info:** [spatial\\_support@usc.edu](mailto:spatial_support@usc.edu), 213-740-2775

## Course Scope and Purpose

Sustainability is among the most pressing scientific and social challenges of our time. Typically defined as utilizing natural resources to create a high quality of life for *future* as well as current generations, the idea of sustainability has provided a strong orientation towards a long-term re-thinking of the human role in and domination of ecosystems. Yet, despite the emergence of a sustainability policy discourse in the late 1980s, global climate change, ocean degradation, deforestation, habitat loss, and species endangerment continue nearly unabated. This situation seriously threatens the inventory of natural capital for present and future generations.

In response to such ongoing challenges, the field of *sustainability science* emerged in the late 1990s. It is a multidisciplinary collection of social, physical, and life sciences that work to understand the complex coupling of human and natural systems across global, national, regional, and local scales. Without a deep understanding and reconsideration of the human role in natural systems, it is impossible to envision a sustainable future. Thus, policymakers rely upon various forms of scientific knowledge and the scientific method itself to understand how to re-chart the human journey towards sustainability.

This course is a Social Analysis (Category C) and a Citizenship in a Global Era (Category G) course in USC's General Education program. This course is also included at the start of USC's GIS and Sustainability Science (GISS) minor. In this course, you will learn how social and ethical theories of sustainability relate to the emergence of sustainability science and how theory and empirical work are mutually constitutive. You will learn why the social and natural sciences and their methods are important to policies and planning for sustainable cities, and how data are used from the social and natural sciences to assess the validity of arguments about reshaping cities for sustainability.

In 2008, an important global threshold was reached, with over 50% of people living in cities. According to UN forecasts, by 2050 70% of the Earth's growing population will be living in urban areas. The rapid growth of cities across the world results from a common undercurrent of global political and economic forces that rests on a history of colonialism. An understanding of these forces and how they might be reshaped to create sustainable forms of urban development will be key to our enquiry. Indeed, issues of global sustainability are increasingly *urban* issues: land use, population, consumption, industrial organization, and infrastructural technologies (e.g., energy).

In a series of laboratory experiences and linked writing exercises, you will learn how to articulate the relationships among observed phenomena, the analytical approaches and methods used to understand them, and their societal implications. For example, one focus of sustainability science is improving our understanding of how the Earth's land cover and land use is changing as a result of the growth of cities, and what it means for people and places. In the laboratory, you will learn how technological tools and data, such as geographic information systems (GIS) and satellite imagery, are used for measuring land use/land cover change and how observed land use/land cover changes are linked to principles of urban form and urban

economics. In related writing assignments, you will consider land use/land cover in the context of social well-being, equity, sustainable livelihoods, and land use politics and regulation.

### ***Learning Outcomes***

Upon successfully completing this course, students should be able to:

- Describe the sustainability problematic and the problem of urban sustainability as a coupled human and natural system;
- Classify both natural and social systems in cities and explain how they are interwoven;
- Understand how data collection, non-experimental research design, and computational modeling are used to analyze urban sustainability problems and solutions;
- Use and interpret spatial data in a professional geographic information system (GIS) to analyze issues of urban sustainability;
- Communicate the science and policy of urban sustainability by leveraging digital resources and applying basic cartographic principles;
- Articulate alternative pathways toward sustainable cities and evaluate scientific claims related to such alternatives;
- Articulate concepts of environmental justice both within the U.S. and globally, including the idea of sustainable citizenship;
- Assess how applications of different scientific methodologies influence or are influenced by debates over urban sustainability.

At the start of the course, students may vary in their competency levels on these abilities. You can expect to acquire these abilities only if you honor all course policies, attend classes regularly, complete all assigned work in good faith and on time, and meet all other course expectations of you as a student.

**Prerequisite(s):** None

**Co-Requisite(s):** None

### **Class Conduct**

**Harassment, sexual misconduct, interpersonal violence, and stalking** are not tolerated by the university. All faculty and most staff are considered Responsible Employees by the university and must forward all information they receive about these types of situations to the Title IX Coordinator. The Title IX Coordinator is responsible for assisting students with supportive accommodations, including academic accommodations, as well as investigating these incidents if the reporting student wants an investigation. The Title IX office is also responsible for coordinating supportive measures for transgender and nonbinary students such as faculty notifications, and more. If you need supportive accommodations, you may contact the Title IX Coordinator directly ([titleix@usc.edu](mailto:titleix@usc.edu) or 213-821-8298) without sharing any personal information with me. If you would like to speak with a confidential counselor, Relationship and

Sexual Violence Prevention Services (RSVP) provides 24/7 confidential support for students (213-740-9355 (WELL); press 0 after hours)

**Diversity and Inclusion** – I intend that students from all backgrounds and perspectives will be well served by this course, that students’ learning needs will be addressed both in and out of class, and that the diversity that students bring to this class will be viewed as a resource, strength, and benefit. I aim to present materials and activities that are respectful to everyone, and you are also expected to respect others regardless of their race, ethnicity, gender identity and expressions, cultural beliefs, religion, sexual orientation, national origin, age, abilities, ideas and perspectives, or socioeconomic status. Your suggestions are encouraged and appreciated. Feel free to let me know ways to improve the effectiveness of the course for yourself or for other students.

### **Course Content Distribution and Synchronous Session Recordings Policies**

USC has policies that prohibit recording and distribution of any synchronous and asynchronous course content outside of the learning environment.

Recording a university class is forbidden without the express permission of the instructor and announcement to the class, or unless conducted pursuant to an Office of Accessibility Services (OSAS) accommodation. Recording can inhibit free discussion, and thus infringe on the academic freedom of other students as well as the instructor. ([Living our Unifying Values: The USC Student Handbook](#), page 13).

Distribution or use of notes, recordings, exams, or other intellectual property, based on university classes or lectures without the express permission of the instructor for purposes other than individual or group study is prohibited. This includes but is not limited to providing materials for distribution by services publishing course materials. This restriction on unauthorized use also applies to all information, which has been distributed to students or in any way has been displayed for use in relationship to the class, whether obtained in class, via email, on the internet, or via any other media. ([Living our Unifying Values: The USC Student Handbook](#), page 13).

### **Required Readings and Supplementary Materials**

Please acquire the texts listed below. Both are available at the USC bookstore. All other supplementary reading listed in the syllabus is available in the related module on Brightspace. The reading is listed by author and chapter number and the course schedule below, and you should aim to read it before coming to lecture on the day it listed.

The required textbooks for this course are:

- Hagen, Bjoern and K. David Pijawka, eds. 2020. *Sustainability for the 21st Century: Pathways, Programs, and Policies*, 3rd Edition. Dubuque, IA: Kendall Hunt. While you may purchase this book the USC bookstore, I will place a bound (hard) copy at Leavey Library Reserves.

- Wheeler, Stephen M. 2013. *Planning for Sustainability: Creating Livable, Equitable, and Ecological Communities*, 2<sup>nd</sup> Edition. New York: Routledge. While you may purchase this book at the USC bookstore, it is available online through the USC Libraries. Sign on to the USC Libraries and search for this title.

Supplementary readings for this course, located within the related course modules on Brightspace, include:

Chapters selected from the following book:

- Sims, Kearnin, Nicola Banks, Susan Engle, Paul Hodge, Jonathan Makuwira, Naohiro Nakamura, Jonathan Rigg, Albert Salamanca, and Pichamon Yeophantong, eds. 2022. *The Routledge Handbook of Global Development*. New York, NY: Routledge. This entire book is available as an electronic book at the USC library. We will read carefully selected chapters as listed by chapter number in the course schedule. The complete citation for each selected chapter is listed below:
  - Andriesse, Edo and Kristian Saugin. 2022. "Spatial Inequality and Development" pp. 351-361 in K. Sims et al. (eds) *The Routledge Handbook of Global Development*. New York, NY: Routledge. (Chapter 30)
  - Bello, Walden. 2022. "Deglobalization" pp. 20-32 in K. Sims et al. (eds) *The Routledge Handbook of Global Development*. New York, NY: Routledge. (Chapter 2)
  - Batista, Tanja and Ronald Skelton. 2022. "International and Internal Migration" pp. 533-544 in K. Sims et al. (eds) *The Routledge Handbook of Global Development*. New York, NY: Routledge. (Chapter 45)
  - Gregoire, Etienne Roy and Pascale Hatcher. 2022. "Global Extractivism and Inequality." pp. 341-350 in K. Sims et al. (eds) *The Routledge Handbook of Global Development*. New York, NY: Routledge. (Chapter 29)
  - Krishnan, Aarti. 2022. "Global Value Chains and Development" pp. 516-532 in K. Sims et al. (eds) *The Routledge Handbook of Global Development*. New York, NY: Routledge. (Chapter 44)
  - La Viña, Antonio G.M. and Jameela Joy M. Reyes. 2022. "Anthropocene, Capitalocene, and Climate Change" pp. 158-169 in K. Sims et al. (eds) *The Routledge Handbook of Global Development*. New York, NY: Routledge. (Chapter 14)
  - Marks, Danny. "Transboundary Governance Failures and Southeast Asia's Plastic Pollution" pp. 280-289 in K. Sims et al. (eds) *The Routledge Handbook of Global Development*. New York, NY: Routledge. (Chapter 24)
  - Rigg, Jonathan and Kearnin Sims. 2022. "Poverty: No Meeting of the Minds" pp. 311-325 in K. Sims et al. (eds) *The Routledge Handbook of Global Development*. New York, NY: Routledge. (Chapter 27)

- Veltmeyer, Henry 2022. "Extractivism" pp. 197-206 in K. Sims et al. (eds) *The Routledge Handbook of Global Development*. New York, NY: Routledge. (Chapter 17)
- Vera-Sanso, Penny. 2022. "Ageing and Development" pp. 576-586 in K. Sims et al. (eds) *The Routledge Handbook of Global Development*. New York, NY: Routledge. (Chapter 49)

The following articles and book chapters, listed by author in the course schedule:

- Anjali, Mahendra and Victoria Beard. 2018. "Achieving Sustainable Cities by Focusing on the Urban Underserved: An Action Agenda for the Global South" pp. 411-416 in T. Elmquist et al. (eds.) *Urban Planet: Knowledge Towards Sustainable Cities*. New York, NY: Cambridge Press.
- Bullen, Anna and Mark Whitehead. 2005. "Negotiating the Networks of Space, Time, and Substance: A Geographical Perspective on Sustainable Citizen." *Citizenship Studies* 9, No. 5: 499-516.
- Cronon, William. 1996. "The Trouble with Wilderness: Or, Getting Back to the Wrong Nature." *Environmental History* 1, no. 1 (January): 7-28
- Goldstein, Noah J., Robert B. Cialdini, and Vldas Griskevicius. 2008. "A Room with a Viewpoint: Using Social Norms to Motivate Conservation in Hotels." *Journal of Consumer Research* 35: 472-482.
- Guhathakurta, Subhrajit. 2017. "Examining Urban Sustainability through Urban Models" pp. 111-126 in B. Hagen and K. D. Pijawka (eds.) *Sustainability for the 21st Century* (2nd Edition). Dubuque, IA: Kendall Hunt.
- Maniates, Michael. 2002. "Individualization: Plant a Tree, Buy a Bike, Save the World?" In *Confronting Consumption*, edited by Thomas Princen, Michael Maniates and Ken Conca, 43-66. Cambridge, MA: MIT Press.
- McAslan, Devon. 2015. "Assessing Urban Sustainability: Using Indicators to Measure Progress" In *Sustainability for the 21st Century* (1st Edition), edited by K. David Pijawka, 235-258. Dubuque, IA: Kendall Hunt.
- Princen, Thomas. 2002. "Consumption and its Externalities: Where Economy Meets Ecology." In *Confronting Consumption*, edited by Thomas Princen, Michael Maniates and Ken Conca, 23-42. Cambridge, MA: MIT Press.
- Pulido, Laura, Steve Sidawi, and Robert O. Vos. 1996. "An Archeology of Environmental Racism in Los Angeles." *Urban Geography* 17, no. 5: 419-439.
- Simkin, Rohan D., Karen C. Seto, Robert I. McDonald, and Walter Jetz. 2022. "Biodiversity Impacts and Conservation Implications of Urban Land Expansion Projected to 2050." *Proceedings of the National Academy of Science* 119, no. 12: e2117297119.
- Webster, Douglas, Feifei Zhang, and Jianming Cai. 2017 "China's Pursuit: Smart Sustainable Urban Environments" pp. 307-331 in B. Hagen and K. D. Pijawka (eds.) *Sustainability for the 21st Century* (2nd Edition). Dubuque, IA: Kendall Hunt.

- Vos, Robert O. 2007. Defining Sustainability: a Conceptual Orientation." *Journal of Chemical Technology and Biotechnology* 82: 334-339.
- Wolch, Jennifer, Jason Byrne, and Joshua P. Newell. 2014. "Urban Green Space, Public Health, and Environmental Justice: the Challenge of Making Cities 'Just Green Enough'." *Landscape and Urban Planning* 125: 234-244.

## **Description and Assessment of Assignments**

Students must attend all regularly scheduled lectures/in-class exercises, participate in labs, write in the reading journal discussion forum, deliver a city sustainability profile, sit for mid-term and final examinations, and produce a final project called a "story map."

### **Labs**

In addition to the lectures and in-class exercises, there is a set of 10 labs and related deliverables across the semester. These laboratory experiences are designed to introduce you to the tools of spatial and social analysis as well as to give you practical experience in implementing these tools to explore various problems within the framework of the scientific method. These assignments are linked to the lectures, but do not duplicate the lecture experience. You must register for one laboratory session in addition to registering for the lectures.

**Absences from lab sessions** must be requested *in advance* by sending an email to the laboratory instructor for your lab section. Excused absences from labs will be granted only for valid reasons; please notify us of the reason for your absence in your email.

### **Reading Journal Discussion Forum**

At the start of the semester, students will participate in a reading journal discussion forum. Here you will find an article from major press outlets (e.g., CityLab, Wall Street Journal, New York Times, and Los Angeles Times) on an issue of sustainable cities that relates to one of our assigned course readings. You will post a short summary of the article and explain how it relates to the reading. You will also read and briefly comment on posts by two of your classmates.

### **City Sustainability Profile Presentation**

Working with a small team of students in your lab, you will create a slide deck and deliver a presentation that gives a profile of an urban region. In each lab class, teams will create profiles for a variety of urban regions around the world based on the home cities of students in the lab. In the city sustainability profile, you will research and relate the city you are profiling to the key course concepts of urban population growth, the urban footprint, the global context of urban sustainability, and the sustainability problematic. You will also brainstorm a sustainability solution for the city you profile.

### ***Policy Essay***

There will be one policy essay written in response to a prompt from the instructor. In this assignment, you will aim to articulate and defend your own point of view regarding a pressing sustainability issue. This assignment will have detailed requirements with respect to required outside research and source citations. Please follow the requirements in the assignment very carefully. We will have a workshop session on the policy essay during lecture class, please be sure to attend.

### ***Story Map***

The final project in this course is a story map, which will be done in small groups within your lab sections. Story maps tell about places, issues, and trends by enriching digital maps with content like various kinds of graphs, text, photographs, video, and audio. The underlying data often depict the coupling of social and natural systems. These may be things like wetland areas, land cover, and census data, and may also include live data streams such as temperature, precipitation, and traffic. They often present scientific data and analysis, but they are mainly designed for the public and do not require their users to have special knowledge or skills in GIS.

Story maps are increasingly in use in sustainability science and are an important tool to describe the challenges of sustainable cities and pathways toward sustainability. For example, you can see an interactive story map that describes land use footprints of megacities here:

<http://storymaps.esri.com/stories/2014/growth-of-cities/>. This story map was created as part of the Smithsonian's series on *Living in the Anthropocene: The Age of Humans*.

In this course, you will create a story map that integrates data on social and natural systems around one of our course's learning modules. Your story map will integrate scientific data like the example above but may be focused at either local or global scales. Some story maps are simply a montage of geotagged photographs. Your story map will be much more than this. It may have photos for context, but it must be primarily an analytical report that includes writing in pop-up windows and sidebars. It will use visualization of data or models to communicate underlying analysis.

### ***Exams and Other Policies***

Both midterms and the final exam are closed book. The mid-terms and final exams will include content learned in course readings, lectures, in-class exercises, laboratory sessions, and assignments up until the date of each exam. Except for *documented* illness, emergencies, or official USC conflicts, **no make-up opportunities will be offered for missed exams or labs**, so mark the appropriate dates on your calendars! If you have a legitimate excuse, speak with the instructor as soon as possible to arrange a make-up. Also, note that unless excused **in advance** for *documented* illness, emergencies, or official USC conflicts, there is **no credit for late assignments**.



## Grading Breakdown

The following table shows the breakdown of the assignments and their weight in the final grade. The emphasis is on regularly completing several short assignments as well as solid performance on examinations and the final project. Assignments must be submitted as noted, typically on the appropriate Brightspace site.

Assessment	Number	Total Points (% of Grade)
Laboratory Reports & Story Map Sessions <i>Note: Lab reports are on the course schedule at the start of each week they are due. Submit all Lab Reports via the Brightspace for your laboratory section before the next week's lab session starts.</i>	10	20
Reading Journal Discussion Forum (Submit on the Lecture Brightspace)	1	5
City Sustainability Profile Presentation (Submit slides to the lab Brightspace and deliver presentation during your lab class meeting)	1	14
Policy Essay (Submit on the Lecture Brightspace)	1	15
Midterm Exam (In class closed book)	1	10
Final Exam (Closed book at scheduled exam time)	1	18
Final Project: Story Map (Submit URL to Lab Section Brightspace and give oral report at final lab session.)	1	18
Totals	16	100

## Grading Scale

Assignments in this and other SSCI courses, are graded on a percentage of the total points available for a given assignment. The grading scaled corresponds to letter grades where A is exemplary, B is very good, C is satisfactory, D is unsatisfactory, and F is failing. Final letter grades are assigned according to the total points earned in the course using standard rounding rules. The grading scale is as follows:

A	> 93 points		B-	80-82 points		D+	67-69 points
A-	90-92 points		C+	77-79 points		D	63-66 points
B+	87-89 points		C	73-76 points		D-	60-62 points
B	83-86 points		C-	70-72 points		F	<60 points

## Grading Timeline

My goal is to provide grading and feedback on each course assignment with sufficient time for you to take account of feedback before the next related assignment is due. In general, you might expect lab reports to be graded within 1-2 weeks as these assignments occur regularly. Other writing and presentation assignments may be returned within about 3 weeks.

## Learning Experience Evaluations

Please note Learning Experience Evaluations for the course take place at the end of the semester and are facilitated by the University. These evaluations provide an important review of student experiences in the course.

## Schedule

Date	Topics	Readings	Deliverables/Due Dates
<b>Module 1   Theories and Key Concepts</b>			
<b>Week 1</b>			
8/26	Introduction to the Course		
8/28	The Urban Sustainability Problematic	Hagen and Pijawka Ch. 1 Wheeler Ch. 1 & 4 Sims et al. Ch. 14	
8/30	Competing Definitions of Sustainability and Sustainable Cities	Hagen and Pijawka Ch. 2 & 3 Wheeler Ch. 2 Vos, R. O. 2007. "Defining sustainability: a conceptual orientation." <i>Perspective in Journal of Chemical Technology and Biotechnology</i> 82: 334-339.	
<b>Week 2</b>			
9/2	Labor Day (No class meeting)		

9/4	The Global Context of Sustainable Cities (1)	Hagen and Pijawka Ch. 4 Wheeler Ch. 19 Sims et al. Ch. 2 & 17 Webster et al. 2017 "China's Pursuit: Smart Sustainable Urban Environments" pp. 307-331 in B. Hagen and K. D. Pijawka (eds.) <i>Sustainability for the 21<sup>st</sup> Century</i> (2nd Edition). Dubuque, IA: Kendall Hunt.	
9/6	The Global Context of Sustainable Cities (2)	Sims et al. Ch. 27, 29, & 30 Anjali, M. and V. Beard. 2018. "Achieving Sustainable Cities by Focusing on the Urban Underserved: An Action Agenda for the Global South" pp. 411-416 in T. Elmquist et al. (eds.) <i>Urban Planet: Knowledge Towards Sustainable Cities</i> . New York, NY: Cambridge Press.	
<b>Module 2   Environmental Footprints</b>			
<b>Week 3</b>			
9/9	Is Population Growth the Key?	Sims et al. Ch. 45 & 49 Wheeler Ch. 17	
9/11	Sustainable Cities or Resilient Cities?	Hagen and Pijawka Ch. 8	
9/13	The Urban Footprint	Simkin et al. 2022. "Biodiversity Impacts and Conservation Implications of Urban Land Expansion Projected to 2050." <i>Proceedings of the National Academy of Science</i> 119, no. 12: e2117297119.	
<b>Module 3   Environmental Governance, Land Development and Politics</b>			
<b>Week 4</b>			
9/16	The Urban <i>Ecological</i> Footprint		Lab 1 Report (Due before your scheduled lab section to your Lab Brightspace)
9/18	Life Cycle Thinking	Hagen and Pijawka Ch. 10	Reading Journal Discussion Forum Due (on the Lecture Brightspace)

9/20	Common Pool Resources	Wheeler Ch. 20, 21, & 23	
<b>Week 5</b>			
9/23	The Paradox of the Growth Machine and the Possibilities of Governing for Urban Sustainability	Wheeler Ch. 18	Lab 2 Report (Due before your scheduled lab section to your Lab Brightspace)
9/25	The Problem of Consumption	Princen, T. 2002. "Consumption and its Externalities: Where Economy Meets Ecology pp. 23-42 in T. Princen, M. Maniates, and K. Conca (eds.) <i>Confronting Consumption</i> . Cambridge, MA: MIT Press	
9/27	Consumption in the Urban Landscape	Wheeler Ch. 11	
<b>Module 4   Perspectives on Consumption</b>			
<b>Week 6</b>			
9/30	Distancing of Production & Waste in a Global Economy	Sims et al. Ch. 24 & 44	City Sustainability Profile Presentation (Deliver during your scheduled lab class)
10/2	Individual Versus Collective Responses to Consumption	Goldstein, N.J. and R.B Cialdini. 2008. "A Room with a Viewpoint: Using Social Norms to Motivate Conservation in Hotels." <i>Journal of Consumer Research</i> 35: 472-482.  Maniates, M. 2002. "Individualization: Plant a Tree, Buy a Bike, Save the World?" pp. 43-66 in T. Princen, M. Maniates, and K. Conca (eds.) <i>Confronting Consumption</i> . Cambridge, MA: MIT Press.	
10/4	The Nature of the City	Wheeler Ch. 9  Wheeler pp. 312-322  Cronon, W. 1996. "The Trouble with Wilderness: Or, Getting Back to the Wrong Nature." <i>Environmental History</i> 1(1): 7-28.	

<b>Module 5   Reclaiming Urban Nature</b>			
<b>Week 7</b>			
10/7	Restoring Urban Biodiversity	Hagen and Pijawka Ch. 11	Lab 3 Report (Due before your scheduled lab section to your Lab Brightspace)
10/9	Water Resources in Cities	Hagen and Pijawka Ch. 12 Wolch et al. 2014. "Urban Greenspace, Public Health, and Environmental Justice: The Challenge of Making Cities 'Just Green Enough'" <i>Landscape and Urban Planning</i> 125: 234-244.	
10/11	Fall Recess (No class meeting)		
<b>Week 8</b>			
10/14	<i>Virtual</i> Tour of LA River (during regular class session at our regular classroom)		
10/16	Mitigating GHG Emissions in Cities	Wheeler Ch. 7 Hagen and Pijawka Ch. 9	
10/18	Adapting to Climate Change in Cities	Hagen and Pijawaka Ch. 15	
<b>Module 6   Climate Change: Mitigation and Adaptation</b>			
<b>Week 9</b>			
10/21	Midterm Review		Lab 4 Report (Due before your scheduled lab section to your Lab Brightspace)
10/23	Midterm Exam		
10/25	Climate Change: ESEM and Agenda Setting		

<b>Week 10</b>			
10/28	Special Issue: Sustainable Transportation & Smart Growth	Hagen and Pijawka Ch. 13 Wheeler Ch. 10 & 12 Wheeler pp. 291-312	Story Map Proposals (Due before your scheduled lab section to your Lab Brightspace)
10/30	Spatial Analysis for Sustainable Transportation		
11/1	History and EJ in the City	Hagen and Pijawka Ch. 7 Wheeler pp. 203-204	
<b>Module 7   Environmental Justice (EJ): Community-Based Sustainability Science</b>			
<b>Week 11</b>			
11/4	Social and Spatial Analysis of Environmental "Bads"	Pulido, L., S. Sidawi, and R. O. Vos 1996. "An Archeology of Environmental Racism in Los Angeles," <i>Urban Geography</i> 17: 419-439.	Lab 5 Report (Due before your scheduled lab section to your Lab Brightspace)
11/6	Social and Spatial Analysis of Environmental Goods		
11/8	The New Regionalism	Wheeler pp. 198-202 Wheeler Ch. 22	
<b>Module 8   Greening the Urban Economy and Urban Metabolism</b>			
<b>Week 12</b>			
11/11	Veteran's Day (No regular class meeting)		Lab 6 Report (Due before your scheduled lab section to your Lab Brightspace)
11/13	Regional Governance		
11/15	Policy Essay Writing Workshop		Bring Draft Policy Essay to Class
<b>Week 13</b>			
11/18	Industrial Ecology: The Science & Technology of Sustainability	Wheeler Ch. 8	Policy Essay Due to Lecture Brightspace

11/20	Urban Metabolism Concept and Models	Hagen and Pijawka Ch. 14 Wheeler Ch. 13 & 14	
11/22	Green Jobs and Eco-Industrial Parks	Wheeler Ch. 16	
<b>Module 9  Indicators, Tools, and Sustainable Citizenship</b>			
<b>Week 14</b>			
11/25	Sustainability Indicators: Measurement and Reporting	McAslan, D. 2015. "Assessing Urban Sustainability: Using Indicators to Measure Progress" pp. 235-258 in K. D. Pijawka (ed.) <i>Sustainability for the 21<sup>st</sup> Century</i> (1 <sup>st</sup> Edition). Dubuque, IA: Kendall Hunt.  Wheeler Ch. 6	
11/27	Thanksgiving Holiday (No regular class meeting)		
11/29	Thanksgiving Holiday (No regular class meeting)		
<b>Week 15</b>			
12/2	Urban Models: How Can Geodesign Contribute?	Hagen & Pijawka Ch. 5 Guhathakurta, S. 2017. "Examining Urban Sustainability through Urban Models" pp. 111-126 in B. Hagen and K. D. Pijawka (ed.) <i>Sustainability for the 21<sup>st</sup> Century</i> (1 <sup>st</sup> Edition). Dubuque, IA: Kendall Hunt.	Story Map Final Presentation (Due in person at your lab section meeting and submitted to the Lab Brightspace)
12/4	Sustainable Citizenship and Sustainable Livelihoods	Sims et al. Ch. 42 Bullen, A. and Whitehead, M. 2005. "Negotiating the Networks of Space, Time and Substance: A Geographical Perspective on the Sustainable Citizen." <i>Citizenship Studies</i> 9: 499-516.	
12/6	Final Exam Review		
<b>Final Examination: TBD/TBA According to the USC Schedule of Classes</b>			

## Laboratory Topics

Week 1 No Labs (Introductory Week)

Week 2 No Lab Meetings (Labor Day Holiday)

Week 3 Lab 1: Population Modeling for Manhattan, NY

Week 4 Lab 2: Mapping the Urban Footprint of Raleigh, NC

Week 5 Lab 3: Mapping Billboards

Week 6 City Sustainability Profile Presentations

Week 7 No Lab Meetings (Fall Recess)

Week 8 Lab 4: Modeling Urban Forests Versus Income

Week 9 Story Map Introduction, Team Selection, and Proposal Development

Week 10 Lab 5: Indexing Neighborhood Walkability

Week 11 Lab 6: Mapping Air Toxics

Week 12 No Lab Meetings (Veteran's Day Holiday)

Week 13 Story Map Working Session

Week 14 No Lab Meetings (Thanksgiving Holiday)

Week 15 Story Map Final Presentations

## Laboratory Protocol

### *Accessing Software for the Labs*

Software to accomplish labs in our course will be provided via the Spatial Sciences Institute (SSI) server and from other cloud-based internet services. The SSI server and our other cloud-based software can be accessed from any standard desktop or laptop computer with a standard web browser and an internet connection. That said, it is not advisable to try to work from a phone or tablet computer. **If you have a laptop computer, please bring it along to the lab sessions. If you do not own a laptop computer, please borrow one from the Leavey Library.** If you use a Mac, please do not use Safari, but instead use Chrome or another standard browser to connect with the SSI Server, Brightspace, and Esri's Story Map resources.

### *Course Content Labs*

Some lab sessions are directly linked to the course lecture content (see titles above). After these lab sessions, you will work on self-guided work tasks using specialized geographic analysis tools and one or more geospatial datasets or computer modeling tools. Each of these 1-hour and 50-minute “content” lab sessions will provide a brief introduction to the lab, including when appropriate, demonstration and help with some key steps with the software. Following each content lab, the next week’s lab session will also include a brief discussion of how the lab relates to key concepts of sustainable cities covered in the readings and lectures, and how these tasks might have been varied and/or enhanced if performed by professionals in a real-world setting.



If time remains in each lab session, students may choose to get started with the lab and ask questions as they come up. However, some the lab work may be conducted independently of the lab session. If you have work left after the lab session, you are advised to start early on it, so you have time to visit the instructor or a lab co-instructor in office hours if you run into difficulties. After completing the computer work, you will write a short lab report to submit to your lab co-instructor before the next lab session (see the specific deadline posted on the lab Brightspace submission link). Each of the 6 content lab reports are worth 2 points in the course.

### ***City Sustainability Profile Labs***

During the week of the lab devoted to the city sustainability profile, your team will deliver an oral presentation with an accompanying slide deck. The lab credit for the city sustainability profiles is included in 15 points for the project itself rather than in the points for lab reports.

### ***Story Map Labs***

In the first of the lab sessions devoted to the story map, you will get an introduction to the story map process and software, form a team with other classmates, and prepare a story map proposal to submit to your instructor at the end of the week. After this, to create the story map, you will work with your team, both inside and outside of the lab session time, using datasets and geospatial software to complete components of your story map. This will include connecting with data, analyzing data, and making maps.

For the sessions marked “Story Map Working Session” above, each story map team will bring work to date to class to show your classmates and your lab co-instructor. The lab co-instructor will review each team's progress. The lab co-instructor and your classmates will also offer tips and tricks to overcome challenges and improve your story map. At the final lab session, your team will give a presentation of your story map. The story map proposal will be graded (for up to 2 points) and students will receive 2 points credit/no credit for participating in the story map working sessions. The oral presentation of the story map at the final lab session will be graded for each student for 2 points.

## **Statement on Academic Conduct and Support Systems**

### ***Academic Integrity***

The University of Southern California is a learning community committed to developing successful scholars and researchers dedicated to the pursuit of knowledge and the dissemination of ideas. Academic misconduct, which includes any act of dishonesty in the production or submission of academic work, comprises the integrity of the person who commits the act and can impugn the perceived integrity of the entire university community. It stands in opposition to the university's mission to research, educate, and contribute productively to our community and the world.

All students are expected to submit assignments that represent their own original work, and that have been prepared specifically for the course or section for which they have been submitted. You may not submit work written by others (including AI generated) or “recycle” work prepared for other courses without obtaining written permission from the instructor(s).

Other violations of academic integrity include, but are not limited to, cheating, plagiarism, fabrication (e.g., falsifying data), collusion, knowingly assisting others in acts of academic dishonesty, and any act that gains or is intended to gain an unfair academic advantage.

The impact of academic dishonesty is far-reaching and is considered a serious offense against the university. All incidences of academic misconduct will be reported to the Office of Academic Integrity and could result in outcomes such as failure on the assignment, failure in the course, suspension, or even expulsion from the university.

For more information about academic integrity see [the student handbook](#) or the [Office of Academic Integrity’s website](#), and university policies on [Research and Scholarship Misconduct](#).

Please ask your instructor if you are unsure what constitutes unauthorized assistance on an exam or assignment, or what information requires citation and/or attribution.

### **Students and Disability Accommodations:**

USC welcomes students with disabilities into all of the University’s educational programs. The Office of Student Accessibility Services (OSAS) is responsible for the determination of appropriate accommodations for students who encounter disability-related barriers. Once a student has completed the OSAS process (registration, initial appointment, and submitted documentation) and accommodations are determined to be reasonable and appropriate, a Letter of Accommodation (LOA) will be available to generate for each course. The LOA must be given to each course instructor by the student and followed up with a discussion. This should be done as early in the semester as possible as accommodations are not retroactive. More information can be found at [osas.usc.edu](http://osas.usc.edu). You may contact OSAS at (213) 740-0776 or via email at [osasfrontdesk@usc.edu](mailto:osasfrontdesk@usc.edu).

### **Support Systems:**

[Counseling and Mental Health](#) - (213) 740-9355 – 24/7 on call

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

[988 Suicide and Crisis Lifeline](#) - 988 for both calls and text messages – 24/7 on call

The 988 Suicide and Crisis Lifeline (formerly known as the National Suicide Prevention Lifeline) provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week, across the United States. The Lifeline is comprised of a national network of over 200 local crisis centers, combining custom local care and resources with national standards and best practices. The new, shorter phone number makes it easier for people to remember and access mental health crisis services (though the previous 1 (800) 273-

8255 number will continue to function indefinitely) and represents a continued commitment to those in crisis.

[Relationship and Sexual Violence Prevention Services \(RSVP\)](#) - (213) 740-9355(WELL) – 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender- and power-based harm (including sexual assault, intimate partner violence, and stalking).

[Office for Equity, Equal Opportunity, and Title IX \(EEO-TIX\)](#) - (213) 740-5086

Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

[Reporting Incidents of Bias or Harassment](#) - (213) 740-5086 or (213) 821-8298

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office for Equity, Equal Opportunity, and Title for appropriate investigation, supportive measures, and response.

[The Office of Student Accessibility Services \(OSAS\)](#) - (213) 740-0776

OSAS ensures equal access for students with disabilities through providing academic accommodations and auxiliary aids in accordance with federal laws and university policy.

[USC Campus Support and Intervention](#) - (213) 740-0411

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

[Diversity, Equity and Inclusion](#) - (213) 740-2101

Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

[USC Emergency](#) - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

[USC Department of Public Safety](#) - UPC: (213) 740-6000, HSC: (323) 442-1200 – 24/7 on call

Non-emergency assistance or information.

[Office of the Ombuds](#) - (213) 821-9556 (UPC) / (323-442-0382 (HSC)

A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.

[Occupational Therapy Faculty Practice](#) - (323) 442-2850 or [otfp@med.usc.edu](mailto:otfp@med.usc.edu)

Confidential Lifestyle Redesign services for USC students to support health promoting habits and routines that enhance quality of life and academic performance.