



## ENV/SUST/GEOG 355: Green Cities: A Sustainable Future

### Course Syllabus Spring Semester 2024

**Instructor:** Neto Leão, PhD

**Credits:** 3

**Contact Hours:** 45

**Prerequisites:** none

**Class Hours:** Tuesdays and Thursdays, 14:15 pm - 15:45 pm

**Office Hours:** By appointment via email

**Course Type:** Standard Course

**Course Fee:** \$20

#### Course Description

“The looming global pollution crisis”, “billions without clear water”, “vehicle pollutants harming people’s health”, are just a few of the headlines making the news every day, all over the world. Cities all over the world have become the major threat to local and planetary health. For the first time in history, the majority of the world’s people live in cities. These numbers are growing. Cities are major contributors to resource consumption, environmental degradation and climate change. Cities are also centers of technological and socio-cultural innovation. Cities must be at the forefront of actions for a sustainable future — working *with* nature, without destroying it.

This class will review concepts of sustainable urbanism and the systems that comprise it: open space, mobility, food and water, energy and waste. Through these perspectives, students will comprehend the principles informing sustainable urban planning and the sociocultural, economic, and political challenges faced by its promoters. Our approach is both global and local - we use Perugia as our case-context while considering broader issues faced by those who promote and apply sustainability internationally.

#### Course Learning Outcomes

By the end of the course, students will be able to:

1. *identify* key terms, concepts, and principles related to sustainability in urban environments; as well as specific connections between people, perceptions, activities, identity and cities’ open spaces and their systems;
2. *explain* how current debates about urban sustainability are impacted by local, national, and international politics and economies;
3. *compare* urban systems through the analysis of case studies on both the public and private sectors—including, energy, water and food, waste management, transportation, architecture, and green spaces—for their effectiveness in implementing policies, technologies, and organizational models that support urban sustainability;
4. *understand* the energy crises within the context of climate change in order to better comprehend the state of the art alternatives to high quanta energy dependence;
5. *integrate* experiential learning activities with classroom knowledge to identify concrete strategies for supporting urban sustainability and communicate them using systematic, public-facing, and ethical scholarship with twenty-first-century research and communication tools.

## Course Materials

### Readings

A course reader, including all the indicated readings, will be available. The course's Moodle site is the primary location for readings and assignments.

### **Assessment**

Attendance	10%
Weekly Quizzes	30%
Course Journal	12%
Field Notes Journal	14%
Final Paper	30%
Office Hours	4%

### **Grading**

Students are reminded that it is their responsibility to note the dates of exams and other assignments. No alternative exam dates will be offered and professors are not required to give partial credit for any late work (they do so at their discretion: the Institute's default policy is no extensions and a zero for any work turned in late). Students who book travel when they have an exam or other assessment will have to change their plans or accept a zero. Letter grades for student work are based on the following percentage scale:

Letter Grade Range	Numerical Score Equivalent	Student Performance
A	93% - 100%	Exceptional Excellent
A-	90% - 92%	
B+	87% - 89%	Superior
B	83% - 86%	
B-	80% - 82%	
C+	77% - 79%	Satisfactory
C	73% - 76%	
C-	70% - 72%	
D+	67% - 69%	Low Pass
D	63% - 66%	
D-	60% - 62%	
F	59% or less	Fail (no credit)

**Please note:** decimal and centesimal numerals between 1-4 are rounded down while 5-9 are rounded up: e.g., expect 89.4 to be 89.0 while 89.5 to round up to 90.

### **Course Requirements**

Grades are based on a combination of participation, in-class assessments, service learning, and exams.

#### *Attendance (10%)*

Attendance is an essential part of this course. You are allowed 2 unexcused absences per course without penalty, per Institute policy. If you attend all the other meetings, you will receive 10% for this part of your grade. There are no make-ups offered for attendance.

#### *Moodle Quizzes (30%)*

Students will be assigned one short quiz every Tuesday morning and will be open until the following Tuesday. Students can take the same quiz as many times as they want. The quiz will be on Moodle. The quizzes will assess the students' understanding of the readings and discussions for that week.

#### *Course Journal (12%)*

Students will need a notebook, which they will use as a personal space through which to reflect on course material and ideas. In-class assignments (e.g. summaries of assigned readings, analyses of primary sources, mental maps, reflections, predictive exercises) will be regularly scheduled and graded twice throughout the semester, i.e.

before the mid-semester break (Week 6) and at the end of the course (Week 12). Each of these checks is worth 6% of your grade, for a total of 12%.

<i>Field Note Journal</i> (14%)	Field notes journal entries refer to the written account derived from data collected during observations at two different urban gardens in Perugia. Each entry should be written with full sentences in the Course Journal notebook. They will be graded on the week after each visit. Each of these checks is worth 7% of your grade, for a total of 14%.
<i>Final Paper</i> (30%)	A 2,000-word paper on any topic covered in the course. The essay is an in-depth study based on sources beyond the reading list. The paper is graded on three different occasions according to the three specific stages of your writing process. See the full prompt on Moodle for more information.
<i>One-on-One Professor Meetings</i> (4%)	Getting to know your professor makes you more comfortable with that person and therefore more likely to ask for help. It also might help for you to ask questions about the various assignments or discuss a paper idea. In this course, you get 4% of your grade for attending an one-on-one professor meeting before Week 11.

### **Extension & Submitting Late Work**

Work submitted after the deadline will receive a grade of zero, not partial credit. Each student is allowed one extension of 24 hours over the entire semester. This can be used for any assignment but the final project. Students need to email the instructor before the deadline and inform the instructor of their use of the extension. Any work submitted after the 24-hour extension will be marked zero. As for all policies, exceptions can be made by the Director for students with special accommodations or in case of medical emergencies, etc.

### Attendance Policy

Attendance is expected and mandatory for classroom times and co-curricular activities. All students are allowed 2 unexcused absences, which do not need to be justified. It is the student's responsibility to keep them in case of real necessity, i.e., sickness or any other unforeseen inconvenience that may prevent students from being in class. More than 2 absences will affect your final grade by 2% per absence up to a maximum of 10%. Excessive unexcused absences (8 or more) may result in a failing grade or disciplinary action. It is the student's responsibility to be aware of the number of absences or late arrivals for each course, and to ask the instructor when in doubt.

If students miss class, they are responsible for obtaining class notes from other students and/or for meeting the professor during office hours. Any work missed in class because of an excused absence may be made up within one week of the return to the class. Any work missed that was a quiz or other test must be made up outside of class time and will, in the interest of intellectual honesty, be a slightly different test than the one given in class. Presence during mandatory field trips is especially important. Missing a mandatory field trip for a course, unless for a very serious reason that is communicated to Umbra staff in a timely manner, will lower the students' grade by half a letter grade (i.e., a final grade of a B+ would be lowered to a B).

Legitimate reasons for an excused absence or tardiness includes: death in immediate family, religious observances, illness or injury, local inclement weather, medical appointments that cannot be rescheduled. Absences relating to illness may be excused by the Director but only if a medical certification is provided.

Students who request an approved absence to observe a religious holiday must submit a formal request to the Institute's Director within one week after the add/drop period when course schedules, including any field trips, are finalized. No exceptions will be made after this deadline.

Except in the case of medical emergencies, absences are not accepted when tests are scheduled; tests cannot be made up. Furthermore, scheduled times and dates indicated for exams, quizzes, oral presentations, and any other graded assignments cannot be changed for any reason. Even if more sections of the same class are activated, students may only take exams during the scheduled times and dates for the section they are enrolled in.

### Tardiness Policy

Students are expected to attend all classes punctually. Any student arriving up to 15 minutes late or leaving up to 15 minutes earlier than the scheduled class end time will be marked as tardy. Each incident of tardiness (late arrivals to or early departures from class) is 0.5% off the final grade. However, should a student arrive more than 15 minutes late or depart more than 15 minutes before the conclusion of the class, it will be recorded as an

absence.

Students are also expected to remain in class during the time of instruction except for a reasonable amount of time to use the restroom. Students who leave class and do not return during the class session will receive an unexcused absence or late penalty.

### **Academic Integrity**

All forms of cheating (i.e., copying during exam either from a fellow student or making unauthorized use of notes) and plagiarism (i.e., presenting the ideas or words of another person for academic evaluation without acknowledging the source) will be handled according to the Institute Academic Policy, which can be found in the Umbra Institute Academic Policies and Conduct Guidelines.

Utilizing ChatGPT or other artificial intelligence (AI) tools for the generation of content submitted by a student as their own as part of any assignment for academic credit at the Institute constitutes a form of plagiarism.

Should the Institute become aware of a student's use of such platforms and services, the student will be subject to the same consequences and judicial proceedings as are in place for plagiarism (defined above).

### **Classroom & Laptop Policy**

Students are expected to follow the policy of the Institute and demonstrate the appropriate respect for the historical premises that the school occupies. Please note that cell phones must be turned off before the beginning of each class. Computers and other electronic devices cannot be used during class lectures and discussions

### **Laptop/Smartphone Policy**

An ever-increasing body of research shows that open laptops and telephones in the classroom create distraction (both visual and auditory) for those using them and those around them. You can type faster than you can write, and as a result you end up processing less when you're simply typing notes. For this reason, students are asked to keep computers and phones away and use a regular notebook. There are four exceptions: 1) if you have a vision or other accommodation; 2) if you are using a tablet to take notes, one which is not connected to the internet; 3) if we have an in-class tutorial about online research tools; or 4) if you make an office hours appointment with me to discuss the use of a computer.

## Schedule of Topics, Readings, and Assignments

### Week 1

#### **Introduction & Definitions**

Meeting#1: Introduction to the class. Why cities? What is urban sustainability? Some numbers on (non)sustainable urbanization

Meeting#2: An urban “snoop about” in Perugia’s ancient center. Café Conversation: Is this Place sustainable?

#### Readings

Cohen, Steven. *The Sustainable City*. New York: Columbia University Press, 2017. Read “Defining the Sustainable City,” pages 3-15.

### Week 2

#### **Roots of the “problem”: a closer look at the evolution of an Italian city**

Meeting#3: Italy and Perugia, an overview of its Urban History and Modern Evolution. The “sustainability” (or not) of its form and functions. Visit to the Pozzo Etrusco, the Fountain and the Aqueduct of Perugia.

#### Readings

Zappelli, M. R. *Home Street Home: Perugia’s History Told Through Its Streets*. Edited by Zachary Nowak. Translated by Deborah Rim Moiso and Alan Whykes. Perugia, Italy: Morlacchi Editore, 2013. Read “Brief History of the City’s Development” and “Via delle Prome,” pages 14-21 and 122-123.

Gunzburg, D. (2013). The Perugia Fountain: an Encyclopaedia of Sky, Culture and Society, in Campion, N.; Greene, L. *Sky and Symbol*. Ceredigion: Sophia Centre Press, pp. 103-118.

Meeting#4: Converting abundance into scarcity: from water to H<sub>2</sub>O. The case of Perugia. We will contrast the difference between finiteness and scarcity to better understand the challenges of transitioning to a Green City.

#### Readings

Samuel, S.; Robert, J. (2010). Water Can and Ought to Run Freely: Reflections on the Notion of ‘Scarcity’ in Economics, in Mehta, L. *The Limits to Scarcity: Contesting the Politics of Allocation*. London, Washington: Earthscan, pp. 109-126.

### Week 3

#### **Sustainable Urban Systems: the role of politics and public policy**

Meeting#5: Overview and discussion of sustainable urban systems: Energy, Waste, Water, Food, Open Space and Green Infrastructures.

#### Readings

Cohen, *The Sustainable City*, “Sustainable Urban Systems: Defined and Explained,” 15-38.

Meeting#6: Public Policy for Sustainability and Citizen Participation: an overview of the evolution of public policy in favor of Urban Sustainability. The importance of local authorities and community action (viz., Europe).

#### Readings

Cohen, *The Sustainable City*, “The Role of Politics and Public Policy in Building Sustainable Cities,” 89-111.

Field trip to San Pietro Urban Garden and Agriculture Department: Friday, February 9. A detailed itinerary will be sent earlier this week.

## Week 4

### Convivial Cities & Vernacular Architecture

Meeting#7: Vernacular Knowledge for Sustainable Architecture: lessons from vernacular heritage to sustainable architecture. What is vernacular architecture?

#### Readings

Guillaud, H., “Defining vernacular architecture”, Vegas, F., et. al., “Defining sustainable architecture”, Achenza, M., “Environmental sustainability in vernacular architecture” in *Versus: Heritage for Tomorrow: Vernacular Knowledge for Sustainable Architecture*. Edited by Mariana Correia, Letizia Dipasquale, Saverio Mecca. Firenze : Firenze University Press, 2014, pp. 33-48.

Meeting#8: Convivial cities have the potential to cause a paradigm shift in alternative urbanization.

#### Readings

Butola, B. (2023). “Convivial Cities: Alternative to Cities of Consumers: An Exploratory Note”, in *Urban Transformational Landscapes in the City-Hinterlands of Asia* . Singapore: Springer, pp. 405-418.

## Week 5

### Human settlements: reflections on the notions of space and place, and on the art of living

Meeting#9: Place in the Space Age. We will discuss how the notion of homogeneous space became a crucial element to develop modern management as it is taken for granted in technological society.

#### Readings

Robert, J. Place in the Space Age. *International Journal of Illich Studies* , no. 4: 2–19.

Meeting#10: To dwell is a human condition. The art of dwelling is part of the art of living. We will explore the notion of dwelling and the idea of unplugging.

#### Readings

Illich, I. (2021). “Dwelling”, in Illich, I. *In the Mirror of the Past* . New York, London: Marion Boyars, pp. 55-64.

Students have until Sunday 15th to turn in the outline of the final paper (see the full prompt on Moodle).

## Week 6

### Community engagement and Research day

Meeting#11: Research day: in class time to prepare the Outline for the Final Paper  
Grading of the Course Journal #1

Meeting#12: Visit to the Orto di San Matteo degli Armeni

Students have until Sunday 3<sup>rd</sup> to turn in the outline of the final paper (see the full prompt on Moodle).

## Semester Break

## Week 7

### Transport & Mobility

Meeting#13: The ways people move around in, and to/from, cities have differing impacts on environmental sustainability, social relations and health. We will start from *close up* - in the street.

### Readings

Cohen, *The Sustainable City*, “Mass and Personal Transit,” 131-152.

Meeting#14: Energy and Equity: the bicycles panegyric. A practical proposition for convivial mobility.

### Readings

Illich, I (2013). Energy and Equity, in Samuel, S. *Beyond Economics and ecology: The radical thought of Ivan Illich*. New York, London: Marion Boyars, pp. 98-154.

## **Week 8**

### **Water & Waste**

Meeting#15: Water Rights: The State, the Market, the Community. Community Rights and Water Democracies.

### Readings

Shiva, V. (2016). Water Rights: The State, the Market, the Community, in Shiva, V. *Water wars: privatization, pollution, and profit*. Berkeley, California: North Atlantic Books, pp. 54-84.

Meeting#16: Waste Management: the cases of New York City and Hong Kong.

### Readings

Cohen, *The Sustainable City*, “Waste Management in New York City, Hong Kong, and Beijing”, 237-270.

## **Week 9**

### **Food Systems for Urban Sustainability**

Meeting#17: Urban agriculture, community gardens and the Continuous Productive Urban Landscape.

### Readings

Giacche, G., et al. “Cultivating changes: Urban Agriculture as a tool for socio-spatial transformation.” *Future of Food: Journal on Food, Agriculture and Society* 5, no. 1 (Summer, 2017): 8–20.

McClintock, Nathan. “Radical, Reformist, and Garden-Variety Neoliberal: Coming to Terms with Urban Agriculture’s Contradictions.” *Local Environment* 19, no. 2 (February 7, 2014): 147–160

Meeting#18: A closer look towards action: Placemaking for good food.

### Readings

Grohmann, D. and D. Meniconi. “The Vegetable Gardens of St. Peter (Perugia-Italy): The Rebirth of a Forgotten Place”. IFLA World Congress International Federation of Landscape Architects, Turin 2016 (on line).

Adhya, A. “Jane Jacobs and the Theory of Placemaking in Debates of Sustainable Urbanism.” In *Urban Wisdom of Jane Jacobs*. Routledge: London, 2012, pages 215-228.

Placemaking Booklet

Friday: Field Trip to Orti Sociali di San Pietro. Itinerary will be provided earlier this week

## **Week 10**

### **Research Week for Final Paper**

Meeting#19: Research day

Grading of the Course Journal #2

Meeting#20: Research day.

Students have until Sunday 7th to turn in the 1000 words draft of the final paper (see the full prompt on Moodle).

## Week 11

### Climate Change's Impact on Urban Sustainability

Meeting#21: We will watch the Anthropocene movie in class. Students must bring their notebooks for course journal activity during the exhibition of the documentary.

Meeting#22: The age of the Anthropocene and the planetary boundaries.

#### Readings:

Rockström, J. "A safe operating space for humanity". *Nature* 461, (September 24, 2009): 472-475.

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## Week 12

### Sustainable Urban Living: sharing economy and vernacular ways

Meeting#23: Sustainable urban living is about more than energy-efficient buildings, mass transit, and green spaces. A growing aspect of sustainable urban living is the "sharing economy."

#### Readings

Cohen, *The Sustainable City*, "Sustainable urban living," 363-402.

Meeting#24: Modes of living that depend less on both market and state, private or public property, are characterized as vernacular ways.

#### Readings

Samuel, S. (2016). "In Defense of Vernacular Ways". In: Murton, J.; Bavington, D.; Dokis, C. *Subsistence under Capitalism: Historical and Contemporary Perspectives*. Canada: McGill-Queen's University Press, pp. 318-345.

## Week 13

### Special Academic Events Week

**Final paper due:** submission by Monday 22<sup>nd</sup>