

## **ENVS 294- W4 Neighborhood Development and Sustainable Communities**

Spring 2021  
Online Course

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**COURSE DESCRIPTION:** Credits 3. This course explores the planning process associated with neighborhood development to create sustainable communities in order to enhance the public realm, protect natural/cultural resources, and ensure a high quality of life for residents. With a focus on the LEED® for Neighborhood Development (LEED ND) rating system, it's aimed to review the credit categories, points, rating prerequisites and credit requirements, and certification process. It covers the major prerequisites and credits of LEED ND including Smart Location and Linkage (SLL), Neighborhood Pattern and Design (NPD), Green Infrastructure and Buildings (GIB), and Innovation and Design Process (IDP). This course helps students to understand how neighborhood-scale decisions influence our day-to-day lives, and how sustainable neighborhoods impacts the natural environment, resident's health and well-being, and community prosperity (addressing the UN Sustainable Development 3, 5, 8, 11, 16 Goals<sup>1</sup>). Successful course completion can prepare students for LEED ND exam to become a LEED Accredited Professional. Students who complete the course in good standing will receive funding to take the certification exam as part of their tuition.

### **COURSE OBJECTIVES:**

Upon completion of this course the student will be able to:

1. Explain the impact of cities as a key contributor to climate change, on natural environment and health and well-being of residents.
2. Connect the sustainability as a multi-dimensional issue to real-world urban challenges (socially, politically, or environmentally).
3. Discuss the importance of sustainable cities and communities in the context of UN SDGs (with an emphasis on SDG 11).
4. Relate the concept of neighborhood development to the sustainability of urban communities.
5. Analyze the structure and culture of a sustainable urban neighborhood.
6. Identify the environmental, social, and economic benefits of LEED ND neighborhoods.
7. Demonstrate the acquired knowledge associated with the LEED ND credit categories, points, rating prerequisites and credit requirements, and certification process.
8. Apply design guidelines, standards, and implications to create sustainable urban neighborhoods and communities, to enhance residents' quality of life
9. Prepare for LEED ND exam to become a LEED Accredited Professional.

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<sup>1</sup> <https://sustainabledevelopment.un.org/post2015/transformingourworld>

## **COURSE CONTENT OUTLINE:**

Module 1	Week 1: Urban Environment and Climate Change: Status, Challenges and Opportunities
Module 2	Week 2: The Concept of Sustainable Development: Definition, Dimensions, and Goals
Module 3	Week 3: UN SDG 11: Sustainable Cities and Communities
Module 4	Week 4/5: Sustainable Communities and Neighborhoods: Principles and Practices
Module 5	Week 6: LEED® for Neighborhood Development (LEED ND)
Module 6	Week 7/8: Smart Location and Linkage (SLL)
Module 7	Week 9/10: Neighborhood Pattern and Design (NPD)
Module 8	Week 11/12: Green Infrastructure and Buildings (GIB)
Module 9	Week 13: Innovation and Design Process (IDP)
Module 10	Week 14: Course Review and Practicing Group Discussion

**REQUIRED TEXT:** All reference materials for this course will be provided as a posted document or link to a web-based article or video (mostly from [USGBC](https://www.usgbc.org/)<sup>2</sup>, [BuildingGreen](https://www.buildinggreen.com/)<sup>3</sup>, and [LEEDuser](https://www.leeduser.com/)<sup>4</sup> as online resources (membership-based sites) that are available for eLearning students.

## **RECOMMENDED TEXT:**

1. The Congress for the New Urbanism, Natural Resources. 2009. LEED Reference Guide for Green Neighborhood Development, U.S. Green Building Council. <sup>5</sup>
2. Friedman, A. 2014. Fundamentals of Sustainable Neighborhoods, U Springer, Cham.
3. Chiras, D., Wann, D. 2009. Superbia: 31 Ways to Create Sustainable Neighborhoods. New Society Publishers
4. Fraker, H. 2013. The Hidden Potential of Sustainable Neighborhoods: Lessons from Low-Carbon Communities, Island Press.

**COURSE ACTIVITIES/ TEACHING STRATEGIES:** The course will use a mix of brief lectures, readings, videos, films, and other instructional strategies for online courses such as virtual field trips and guided tours to engage students more in learning and provide opportunities for them to move from consumers to creators. Students are required to take three (2) exams, ten (10) module self-assessment quizzes, and (10) module assignments in different types of literature review, research essay/ paper, project presentation, etc. where they can exercise independent studies, either alone or in group of three. Ten (10) module online discussion forums are also designed to as a part of class, to encourage students to explore a topic in detail and exchange ideas on urban environment, urban sustainability, neighborhood development, sustainable cities and communities, and LEED ND prerequisites and credit requirements. Students are required to access information such as grades, lecture presentations, lecture outlines, readings, supplemental materials, videos, tools, the blog, assignments, discussions, and other resources will be available on Blackboard.

## **ADDITIONAL UNIQUE ASPECTS OF COURSE:**

1. **Addressing the UN' Sustainable Development 3, 5, 8, 11, 16 Goals**<sup>6</sup>, this interdisciplinary course focuses on the theory, policies and principles of neighborhood development for sustainable urban communities, and test strategies for their implementation in urban scale projects. It helps students as

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<sup>2</sup> <https://www.usgbc.org/articles>

<sup>3</sup> <https://www.buildinggreen.com/>

<sup>4</sup> <https://leeduser.buildinggreen.com/>

<sup>5</sup> [https://www.usgbc.org/sites/default/files/LEED%202009%20RS\\_ND\\_07.01.14\\_current%20version.pdf](https://www.usgbc.org/sites/default/files/LEED%202009%20RS_ND_07.01.14_current%20version.pdf)

<sup>6</sup> <https://sustainabledevelopment.un.org/post2015/transformingourworld>

future urban sustainability leaders, to understand how neighborhood-scale decisions influence the natural environment, health and well-being of residents, and community prosperity by encouraging walk able developments and infill on unutilized developed land to reduce land consumption.

2. With a focus on **LEED ND credit** categories, points, rating prerequisites and credit requirements, and green buildings certification process, it prepares students to sit for the LEED ND exam or becoming a LEED Accredited Professional.
3. This course highlights the **mission of department of geography and environmental sustainability at SUNY Oneonta**, to “give students the geographic and/or environmental sustainability knowledge and skills they need to interpret social, physical and environmental influences at local, regional and global scales”<sup>7</sup>. It encourages students to look beyond the scale of buildings to consider entire communities to create better, more sustainable, well-connected neighborhoods, encouraging daily physical activity through walking and biking availability, to reduce greenhouse gas emissions, energy and resource consumption while showcasing SUNY Oneonta’s commitment to sustainability.
4. This course also fulfils the **SUNY General Education attributes NS3** to help students to “understand the methods scientists use to explore natural phenomena, including observation, hypothesis development, measurement and data collection, experimentation, evaluation of evidence, and employment of mathematical analysis; and application of scientific data, concepts, and models in one of the natural sciences”.<sup>8</sup>

#### **COURSE REQUIREMENTS:**

#### **GENERAL REQUIREMENTS:**

- **Course Format** This course is delivered completely online (so you will need consistent, reliable access to the Internet) via Blackboard. The tools that are part of Blackboard (grading, information posting, emails, etc.) will be used for administration and general communication. A discussion board will be the primary tool for interaction within the class. Software such as Power Point, Adobe, Google Earth, etc. will be used to develop and view materials as well as demonstrate concepts being discussed or presented. Media to be used will include print (physical and virtual), video and audio. The media will be a combination of instructor developed material as well as material available in print or web based. The tools and media are selected in conjunction with each course module and the associated learning objectives. Projects will be presented via online webinars; if your schedule conflicts with the webinars, they will be recorded for later playback. Course components include online material, multimedia, threaded discussions and e-mail. This course is primarily asynchronous; please keep in mind that each module is designed to be completed within the designated timeframe and will include specific "due dates" for each part of the module's assignments.
- **Attendance Policy:** Success in this course is dependent on your active participation and engagement throughout the course. As such, students are required to complete all assignments by the due date, and to actively participate in class discussions. Additionally, students are expected to:
  - Log on at least three times a week – on different days in order to completely weekly assignments, assessments, discussions and/or other weekly deliverables as directed by the instructor and outlined in the syllabus;
  - Participate in the weekly threaded discussions, this means that, in addition to posting a response to the thread topic presented, students are expected to respond to each other and comment and questions from the instructor and/or other students;

If you find that you cannot meet the class' minimum discussion requirements due to such a circumstance, please contact your instructor as soon as possible. Students will not be marked present

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<sup>7</sup> <https://suny.oneonta.edu/geography-environmental-sustainability>

<sup>8</sup> <https://suny.oneonta.edu/academic-advisement/general-education>

for the course in a particular week if they have not posted on the discussion forum and/or submit assignment/essay or complete assessment if administered in that week.

### **SPECIFIC REQUIREMENTS:**

1. **Exams/Quizzes:** There will be **three (3) exams**; two during the semester and a **cumulative final exam** (please see attached course schedule for exam dates). In addition, there will be **ten (10) module self-assessment check quizzes**. Quiz material will be drawn from the previous discussions and assigned readings. Exams/quizzes will consist of a mix of multiple choice, true/false, fill-in-the-blank and short answer questions about the material covered in that unit.
2. **Discussions/Forums:** Students are required to participate in **ten (10) module online discussion forums** as a part of class, **to explore a topic in detail and exchange ideas**. Attendance by way of online participation is considered in the calculation of the student's final grade, as each activity is assigned a value and is counted toward the student's final grade. The instructor reserves to issue a failing grade for lack of online presence in this course.
3. **Homework/Assignments:** Students are required to conduct **ten (10) module assignments/exercises**. All assignments should be completed independently unless they are specifically indicated as a team assignment by your instructor (directions for the homework assignments and group assignments will be made available on Blackboard). **Students are expected to complete all assigned readings prior to each class**; these may include materials supplemental to the textbook posted on Blackboard. Students must always properly cite their sources and properly credit all words, thoughts and images to the original author. Students are also responsible for completing all assignments. Due dates will be announced when the assignment is given and posted on the Blackboard calendar. **You have to submit your assignments in Microsoft Word or PDF format using the Blackboard Assignment tool (digital drop boxes) on Blackboard** (please plan ahead in case there are technical difficulties) unless there are extenuating circumstances, **emailed papers will not be accepted**.

**\*\*\*NOTE:** I always aim to have assignments graded within a week of the due date, often sooner. If you don't see a score within a week, please check to make sure it was received. DO NOT WAIT until the end of the semester to check. To iterate, I will not accept missing material or reconsider missing grades after the final class....

**LATE ASSIGNMENT/ MAKE-UP TEST POLICY:** All assignments must be submitted online on Blackboard on the due date announced unless otherwise noted by the instructor. If you cannot submit work on time, let me know beforehand and we'll make alternate arrangements. Unexcused late work will only be accepted for up to one week after the due date, with reduced credit.

### **METHOD OF EVALUATION & BASIS OF FINAL COURSE GRADE DETERMINATION:**

#### **Assessment Methods:**

- Professor will regularly interact with the students through discussion forums, and provide feedback validating their understanding of the fundamental course material delivered through posted readings and videos and posts, papers and projects presented by other students. Discussions will be evaluated utilizing an associated Discussion Board Participation rubric and assigned points for each discussion forum.
- Posted module assignments will be discussed and critiqued by the professor and other students. The student will be evaluated utilizing an associated Written Assignment Assessment rubric and assigned points for each assignment.
- Module self-assessment check tests will be provided in each module to assist the student in assessing their understanding of the reading assignments. These will be ungraded and credit for completion will be the only application to the final course grade.
- Community Windshield Assessment Project will be evaluated utilizing an associated rubric. The project will be submitted in a sequence of steps toward completion with each step being assessed with each own rubric.

- Community Sustainability Intervention will be evaluated utilizing an associated rubric. The project will be submitted in a sequence of steps toward completion with each step being assessed with its own rubric.

**\*\*\*NOTE:** All rubrics and their associated assessment criteria will be available to the student.

**Course Grading:** Your final letter grade is determined on a **point-based scale, not percentages**. Please don't assume that percentages from other classes guarantee a particular final grade in this class. You can track your progress throughout the semester by adding up points you've earned out of the total possible.

<b>Course Grading:</b>		<b>Total Possible</b>
Exams	3@20 pts each	60
Module self-assessment test quizzes	10@4 pts each	40
Module assignments/exercises	10@6 pts each	60
Module line discussion forums Participation	10@4	40
<b>Total Possible course points: 200</b>		

A 190    B+ 174    C+ 154    D+ 134    F <120  
 A- 180    B 166    C 146    D 126  
           B- 160    C- 140    D- 120

(In other words, if you earn 180 points, you're guaranteed a B+. You would need to earn 5 more points to be guaranteed an A-.) Your final grade will be posted on Blackboard within 48 hours of the final exam. Please do not email to ask if I will give you extra points or if you can complete missing assignments or extra credit after grades are posted (especially since I am required to submit final grades to the Registrar within 48 hours of the exam).

**STUDENTS WITH DISABILITIES:** All individuals who are diagnosed with a disability are protected under the Americans with Disabilities Act, and Section 504 of the Rehabilitation Act of 1973. As such, you may be entitled to certain accommodations within this class. If you are diagnosed with a disability, please make an appointment to meet with Accessibility Resources, 133 Milne Library, ext. 2137. All students with the necessary supporting documentation will be provided appropriate accommodations as determined by the Accessibility Resources Office. It is your responsibility to contact Accessibility Resources and concurrently supply me with your accommodation plan, which will inform me exactly what accommodations you are entitled to. You will only receive accommodations once you provide me with an Accessibility Resources accommodation plan. Any previously recorded grades will not be changed.

**EMERGENCY EVACUATION PROCEDURES:** In the event of an emergency evacuation, classes meeting in this building are directed to reassemble at the IRC Lobby so that all persons can be accounted for. Complete details of the College's emergency evacuation, shelter-in-place and other emergency procedures can be found at the emergency response guidelines<sup>9</sup>. All students are also encouraged to register for NY Alert for immediate notification of emergencies on or near the campus.

**ACADEMIC INTEGRITY:** You are expected to know and abide by SUNY Oneonta's Academic Integrity Policy<sup>10</sup>. Plagiarism in any form—including copying and pasting text from websites or other materials without using quotation marks and/or referring to information without properly crediting sources—will not be tolerated. If you unethically copy the work of another student or outside source, you will receive NO CREDIT for the entire assignment.

<sup>9</sup> <http://www.oneonta.edu/security>

<sup>10</sup> <http://www.oneonta.edu/development/judicial/code.pdf>