# NRE 3150

# Green Stormwater Infrastructure Practices

# Spring 2025 Syllabus

# University of Connecticut

**Catalog Description:**

Design specifications, installation processes, and maintenance of bioretention/rain gardens, pervious pavements, and green roofs.

Our focus will be on practical, hands-on aspects of green stormwater applications.

*Upon completion of this course, students will:*

1. Understand the background of traditional stormwater management practices and why green stormwater infrastructure (GSI) practices were developed.

2. Understand how different types of GSI function, and what factors impact the design, installation, and maintenance of GSI features.

3. Understand factors that influence municipal and private adoption of these features.

**Class Schedule:** Tu/Th 2:00 – 3:15

**Location: RHBA 101**

If we need to meet remotely, **use this link: https://uconn-cmr.webex.com/meet/med00007**

**Instructors:**

Dr. Michael Dietz, Extension Educator, Department of Extension/NRE

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David Dickson, Extension Educator, Department of Extension & Center for Land Use Education and Research (CLEAR)

Email: david.dickson@uconn.edu, UConn Extension (CLEAR)

**Readings:** Readings as assigned, available on HuskyCT site.

| Week | Day | Topic | Reading | Homework |
|---|---|---|---|---|
| **Section 1** | | **DEFINING THE PROBLEM** | | |
| 1 | 1/21/2025 | Course intro | | |
| | 1/23/2025 | Water cycle | | |
| 2 | 1/28/2025 | Urban stormwater | | |
| | 1/30/2025 | Impervious cover | Schueler, Arnold & Gibbons | 1 |
| 3 | 2/4/2025 | CT ECO and MS4 | | |
| | 2/6/2025 | History of water & LID | | |
| **Section 2** | | **LOW IMPACT DEVELOPMENT PRACTICES** | | |
| 4 | 2/11/2025 | Bioretention | UNH Report, Dietz 2007 | |
| | 2/13/2025 | Bioretention | | |
| 5 | 2/18/2025 | Bioretention | | 2 |
| | 2/20/2025 | Permeable pavements | | |
| 6 | 2/25/2025 | Permeable pavements | | 3 |
| | 2/27/2025 | Permeable pavements | | |
| 7 | 3/4/2025 | Tree box filters/green roofs | | |
| | 3/6/2025 | Jordan Cove/social factors | | |
| 8 | 3/11/2025 | **MIDTERM EXAM** | | |
| | 3/13/2025 | Rapid assessment technique | North Haven report | |
| 9 | 3/18/2025 | **SPRING BREAK** | | |
| | 3/20/2025 | **SPRING BREAK** | | |
| **Section 3** | | **LID APPLICATIONS & ISSUES IN THE FIELD** | | |
| 10 | 3/25/2025 | Rapid assessment technique | | |
| | 3/27/2025 | Rapid assessment technique- field techniques & sizing | | |
| 11 | 4/1/2025 | Enhancing report with visualization | | |
| | 4/3/2025 | Office hrs for project | | |
| 12 | 4/8/2025 | Office hrs for project | | |
| | 4/10/2025 | Presentations | | |
| 13 | 4/15/2025 | Presentations | | |
| | 4/17/2025 | Reflection | | |
| 14 | 4/22/2025 | **PANEL DISCUSSION** | | |
| | 4/24/2025 | Role play | | 4 |
| 15 | 4/29/2025 | Role play | | |
| | 5/1/2025 | Wrap up | | 5 |

**Grading:** Midterm exam (30%), homework (30%), final project (30%), class participation (10%).

**Homework policy:** Homework not submitted by the end of the day (4pm) on the due date will have points taken off (5 points per day), unless you contact me about an extenuating circumstance.

**Homework Assignments:**

| HOMEWORK | Topic |
|:--------:|-------|
| 1 | Review disconnection plan |
| 2 | Size & design bioretention |
| 3 | DIY permeable concrete |
| 4 | Role play persona writeup |
| 5 | Role play testimony |

**Rescheduling Finals: (Note deadline for bunched finals)**
Visit this site: https://dos.uconn.edu/finals-rescheduling/

**Classroom expectations:**
It is expected that you will attend class and arrive on time. Cell phones, iPods, etc. should not be used during classroom time. They should be turned off or put on vibrate. Texting is not permissible during class, especially during an exam. Use of these devices during exams will result in a grade of zero on that exam.

Grades earned in the course will be based on the following:

| Letter grade | Range of points |
|--------------|-----------------|
| A | 93.4 + |
| A- | 90.0 - 93.3 |
| B+ | 86.7 - 89.9 |
| B | 83.4 - 86.6 |
| B- | 80.0 - 83.3 |

*NRE 3150 – Spr. 2025 – updated 1/16/25*

| | |
|---|---|
| C+ | 76.7 - 79.9 |
| C | 73.4 - 76.6 |
| C- | 70.0 - 73.3 |
| D+ | 66.7 - 69.9 |
| D | 63.4 - 66.6 |
| D- | 60.0 - 63.3 |
| F | < 60.0 |

## Student Responsibilities and Resources

As a member of the University of Connecticut student community, you are held to certain standards and academic policies. In addition, there are numerous resources available to help you succeed in your academic work. Review these important standards, policies and resources, which include:

- The Student Code
    - Academic Integrity
    - Resources on Avoiding Cheating and Plagiarism
- Copyrighted Materials
- Credit Hours and Workload
- Netiquette and Communication
- Adding or Dropping a Course
- Academic Calendar
- Policy Against Discrimination, Harassment and Inappropriate Romantic Relationships
- Sexual Assault Reporting Policy

## Students with Disabilities

The University of Connecticut is committed to protecting the rights of individuals with disabilities and assuring that the learning environment is accessible. Students who require accommodations should contact the Center for Students with Disabilities, Wilbur Cross Building Room 204, (860) 486-2020 or http://csd.uconn.edu/.

Blackboard measures and evaluates accessibility using two sets of standards: the WCAG 2.0 standards issued by the World Wide Web Consortium (W3C) and Section 508 of the Rehabilitation Act issued in the United States federal government." (Retrieved March 24, 2013 from Blackboard's website)

## Cheating – Student Academic Misconduct

Academic misconduct is dishonest or unethical academic behavior that includes, but is not limited to, misrepresenting mastery in an academic area (e.g., cheating), intentionally or knowingly failing to properly credit information, research or ideas to their rightful originators or representing such information, research or ideas as your own (e.g., plagiarism). More information can be found here: https://policy.uconn.edu/2023/07/11/academic-scholarly-and-professional-integrity-and-misconduct-aspim-policy-on/ .

## Resources for Students Experiencing Distress

The University of Connecticut is committed to supporting students in their mental health, their psychological and social well-being, and their connection to their academic experience and overall wellness. The university believes that academic, personal, and professional development can flourish only when each member of our community is assured equitable access to mental health services. The university aims to make access to mental health attainable while fostering a community reflecting equity and diversity and understands that good mental health may lead to personal and professional growth, greater self-awareness, increased social engagement, enhanced academic success, and campus and community involvement.

Students who feel they may benefit from speaking with a mental health professional can find support and resources through the **Student Health and Wellness-Mental Health** (SHaW-MH) office (https://counseling.uconn.edu). Through SHaW-MH, students can make an appointment with a mental health professional and engage in confidential conversations or seek recommendations or referrals for any mental health or psychological concern.

Mental health services are included as part of the university's student health insurance plan and also partially funded through university fees. If you do not have UConn's student health insurance plan, most major insurance plans are also accepted. Students can visit the **Student Health and Wellness-Mental Health located in Storrs on the main campus in the Arjona Building, 4th Floor,** or contact the office at **(860) 486-4705, or https://studenthealth.uconn.edu/** for services or questions.

## Accommodations for Illness or Extended Absences

Please stay home if you are feeling ill and please go home if you are in class and start to feel ill. If illness prevents you from attending class, it is your responsibility to notify me as soon as possible. You do not need to disclose the nature of your illness, however, you will need to work with me to determine how you will complete coursework during your absence.

If life circumstances are affecting your ability to focus on courses and your UConn experience, students can email the Dean of Students at dos@uconn.edu to request support.