NRE 3150

Green Stormwater Infrastructure Practices

Spring 2022 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: As of January 2022, the class is scheduled to meet in **RHBA 201**, however for the first two weeks of the semester, we will meet via WebEx **(use this link: https://uconn-cmr.webex.com/meet/med00007)**

Instructors:

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

Office: W.B. Young 319

Phone: 860-486-2436

Email: michael.dietz@uconn.edu

Office hours: by appointment

Chester Arnold (chester.arnold@uconn.edu) & David Dickson (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	1/18/2022	**Remote:** Course intro		
	1/20/2022	**Remote:** Water cycle		
2	1/25/2022	**Remote:** Field delineation and AGOL		1
	1/27/2022	**Remote:** Land use/land cover, CT trends	CCL Website, paper	
3	2/1/2022	Impervious cover	Belucci, Schueler, Arnold & Gibbons	
	2/3/2022	Stormwater management		2
4	2/8/2022	History of water & LID Regulations		
Section 2		**LOW IMPACT DEVELOPMENT PRACTICES**		
	2/10/2022	Regulatory background for MS4/TMDL	Dietz & Arnold	
5	2/15/2022	Bioretention	UNH Report, Dietz 2007	
	2/17/2022	Bioretention	Dietz	3
6	2/22/2022	Permeable pavements		
	2/24/2022	Permeable pavements	Dietz	
7	3/1/2022	Permeable pavements		4
	3/3/2022	Tree box filters		
8	3/8/2022	Green roofs	Gregoire & Clausen	
	3/10/2022	**MIDTERM EXAM**		
9	3/15/2022	Jordan Cove/social factors		
	3/17/2022	Economic considerations		
Section 3		**LID APPLICATIONS & ISSUES IN THE FIELD**		
10	3/22/2022	**PANEL DISCUSSION**		
	3/24/2022	Reading a site plan		5
11	3/29/2022	Role Play		
	3/31/2022	Role Play		6
12	4/5/2022	Rapid assessment technique	North Haven report	
	4/7/2022	Rapid assessment technique-field techniques & sizing		
13	4/12/2022	**SPRING BREAK**		
	4/14/2022	**SPRING BREAK**		
14	4/19/2022	Reflection		
	4/21/2022	Office hrs for project		
15	4/26/2022	Presentations		
	4/28/2022	Presentations		

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Grading: Midterm exam (35%), homework (35%), final project (20%), 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	StreamStats
2	Find and reflect on current stormwater article
3	Size & design bioretention
4	DIY permeable concrete
5	Role play persona writeup
6	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

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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).

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. 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.

Mask Expectations

To ensure a safe learning environment for everyone, masks/face coverings must be worn at all times when in the classroom. If a student is not wearing a mask/face covering, they will be asked by the instructor to put one on immediately or leave the classroom. Repeatedly failing to follow this expectation will result in a referral to Community Standards. If an instructor is not wearing a mask/face covering, students should feel comfortable asking the instructor to put one on immediately. More information about proper usage of masks is available from UConn Environmental Health and Safety at this link.

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. Regional campus students should email the Student Services staff at their home campus to request support and faculty notification.

COVID-19 Specific Information: People with COVID-19 have had a wide range of symptoms reported – ranging from mild symptoms to severe illness. These symptoms may appear 2-14 days after exposure to the virus and can include:

- Fever

- Cough

- Shortness of breath or difficulty breathing

- Chills

- Repeated shaking with chills

- Muscle pain

- Headache

- Sore throat

- New loss of taste or smell

Additional information including what to do if you test positive or you are informed through contract tracing that you were in contact with someone who tested positive, and answers to other important questions can be found here: https://studenthealth.uconn.edu/updates-events/coronavirus/