

## SYLLABUS

Credits:	3
Prerequisites:	None
Class Times:	T, Period 2, 3; other to be arranged
Classroom:	RNK 106 (Rinker Hall)
Instructor:	Glenn Acomb, FASLA, Department of Landscape Architecture
Office Location:	Room 434 ARCH
Office Hours:	M, W: 11:30 AM-12:30 PM; T, R: 10:45-11:45 AM (Appointments are recommended)
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### Description

Site design and construction plays a significant role in sustainability and often accounts for impacts far beyond site boundaries, especially through removal of vegetation, compaction of soil, stormwater runoff and the related effects upon surface and ground water. This is further complicated by the consumption of as much as 50% of our potable water for use in the landscape. This course will explore water resource conservation through sustainable site design methodologies with a focus on the design of green roofs (and living walls) as a viable tool.

### Course Objectives

The primary objective of this course is to provide students with an understanding of sustainability through the technology of design strategies for the site and vegetated roofs. Students will be exposed to:

- Sustainability principles related to water resources, energy with an overview of the principles of low impact development (LID), including bioremediation tools including rain gardens, bioretention, pervious surfaces and other examples of LID tools for the individual site.
- The history of green roof technology as well as contemporary approaches and applications of green roofs in the United States, Europe and Asia.
- The technology of green roof assemblies including the relationship of the roof, waterproofing, roof drainage, water harvesting components (cisterns and irrigation), growth media and plant selections with a focus on green roofs in hot-humid climates.
- The performance and cultivation issues of green roofs in Florida and other hot-humid climates.
- An overview of green wall applications.

### Evaluation Criteria

It is required that each student demonstrates qualitative growth for each of the objectives of the course. The evaluation criteria by which student work will be measured include:

- Participation (attendance, participation in class and attention to deadlines)
- Craft in Communication (documentation, computational skills/abilities, and limited graphic communication)
- Focus on Assignment Objectives (understanding the instructional purpose of an assignment)
- Exploration and Persistence (pursuit of excellence in solving the assigned work)

### Grading

The grade for the course will be based on this approximate allocation:

- Class Participation and Attendance – 40%
- Assignments – 20% (these include short article reviews or opinion papers; or case study summaries of green roof installations, manufacturers and/or products)
- Quizzes and 1 test – 20%
- Final Project – 20% (a proposed green roof project; undertaken by 1 or 2 students; and selected from a list of topics provided by the Instructor)

Grading will adhere to the University of Florida Grade Policy:

Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
Numeric Grade	93-100	90-92	87-89	83-86	80-82	77-79	73-76	70-72	67-69	63-66	60-62	0-59
Quality Points	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	0.67	0.0

For greater detail, see the Registrar's Grade Policy regulations at <http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html>

### Participation and Attendance

The following attendance policy will be applied:

<u>Unexcused Absences</u>	<u>Grade lowered</u>
4-5	5%
6-7	10%
8-9	15% and so on....

In special situations, lateness, absence or late work may be unavoidable (important doctor's appointments or family emergencies that cannot otherwise be rescheduled, etc.). In such instances, it is the *student's responsibility* to produce written documentation of the absence (doctor's verification, etc.).

### Other Policies

- A late assignment will have its grade lowered 10% for each day that it is late.
- Make-up assignments *may be granted if a valid excuse is given for the absence and if agreed to by the instructor*. The make-up must be completed on or before the last day of classes.
- It is the responsibility of the student to confirm or resolve all absences prior to the last day of classes.
- *Cellular phones are expected to be silent in this class.*
- *Laptop computers are allowed to be used in class for note-taking only. Evidence of notes will be produced upon request.*

### Use of Computers

Students are expected to have access to a computer with the following software (current releases preferred):

- MSWord, Excel, Powerpoint; Adobe Acrobat or Adobe Reader

- Virus and spyware protection software
- Adobe Photoshop or other comparable image editing software (optional –useful, but not required)
- Pinterest, the image organizing/social sharing site

Students should be familiar E-Learning course delivery, as portions of the course will utilize this method.

### Submission of Student Work

All student work may be retained and used by the Department of Landscape Architecture. Digital Copies of student work for this course must be turned in at the completion of each assignment. Please follow the directions given by the instructor as to how and where they will be submitted (in E-Learning or email; PDF or MSWord document file, etc.). Regardless, all files must be named as follows:

**course# name project student name. dwg/pdf/jpg/**

*Example: 4260GreenRoofAssig8Smith*  
4ch 8ch 8ch 6ch

Use caps for separation

No spaces, hyphens, or underscoring

Do not submit files in AutoCad or Revit formats. Use jpg or pdf.

### Communication

Email communication will be used on a regular basis. It is the responsibility of the student to provide an accurate email address and to maintain the email connection and mailbox capacity throughout the semester.

The course will utilize E-Learning (SAKAI) for providing course information/handouts, providing Powerpoint presentations, and submitting assignments. Some assignments will allow submittals to E-Learning and others will require hard copy submittal. Students should become familiar with E-Learning and test its functional capability.

### Textbook

*Planting Green Roofs and Living Walls*, 2<sup>nd</sup> ed., Nigel Dunnett and Noel Kingsbury, Portland, Oregon: Timber Press, 2009.

### Selected Readings may be included from

*Cradle to Cradle*, William McDonough and Michael Braungart, New York, NY: North Point Press, 2002.

*Sustainable Landscape Construction*, 2<sup>nd</sup> ed., Kim Sorvig and William Thompson, Washington, DC: Island Press, 2008.

*The Sustainable Sites Handbook*, Meg Calkins, New York, NY: John Wiley & Sons, Inc., 2012.

### Field Trips

This course may involve occasional walking or out-of-area field trips to observe projects. If you require special arrangements due to physical impairments or disability-related limitations, please contact me.

### **Academic Honesty:**

The University requires all members of its community to be honest in all endeavors. When students enroll at UF they commit themselves to honesty and integrity. Your instructor fully expects you to adhere to the academic honesty guidelines you signed when you were admitted to UF. In completing the registration form at the University of Florida, every student has signed the following statement:

*"I understand the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University."*

Furthermore, on work submitted for credit by all UF students, the following pledge is either required or implied:

*"On my honor, I have neither given nor received unauthorized aid in doing this assignment."*

It is to be assumed that all work will be completed independently unless the assignment is defined as a group project by the professor. This does not mean that students cannot help one another in learning material, but all work that is turned in must be independent work of that individual.

Misrepresentation or plagiarism, such as claiming another's work to be one's own, refers to graphic and design work as well as written work. Submitting work from one course to fulfill the requirements of another (unless expressly allowed by the instructor) is also misrepresentation.

The University Honor Code and the Department of Landscape Architecture Academic Honesty Policy are to be followed to the letter. Any students found to have cheated, plagiarized, or otherwise violated the Honor Code in any assignment will be punished according to the severity of the act and may be referred to the Honor Court. It is each student's responsibility to report any infraction, and it is expected that each faculty will report all infractions as well.

For more information, see <http://www.chem.ufl.edu/~itl/honor.html> and the Department of Landscape Architecture Academic Honesty Policy.

### **Student Accommodations**

Support services for students with disabilities are coordinated by the Disability Resource Center in the Dean of Students Office. To obtain individual support services, each student must meet with a support coordinator in the Disability Resources Program who will work with the individual student and the instructor to determine appropriate support strategies. There is no requirement for a student to self-identify his/her disability; however, students requesting classroom accommodations must register with the Dean of Students Office. Appropriate documentation regarding the student's disability is necessary to obtain any reasonable accommodation or support service.

### **Counseling Resources**

Students experiencing crisis or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. Both the Counseling Center and Student Mental Health provide confidential counseling services at no cost for currently enrolled students. The Counseling Center is located at 301 Peabody Hall (next to Criser Hall). Student Mental Health is located on the second floor of the

Student Health Services in the Infirmary. For further information on services and how to make an appointment, call the Counseling Center at 392-1575 or Student Mental Health at 392-1171. See these web sites for additional resources: Counseling Center: [www.counsel.ufl.edu](http://www.counsel.ufl.edu) and Student Mental Health: <http://www.hsc.ufl.edu/shcc/smhs.htm>

### Religious Holidays

The university calendar does not include observance of any religious holidays. The Florida Board of Governors and state law govern university policy regarding observance of religious holidays. Students shall be excused from class or other scheduled academic activity to observe a religious holy day of their faith with prior notification to the instructor. Students shall be permitted a reasonable amount of time to make up the material or activities covered in their absence. Students shall not be penalized due to absence from class or other scheduled academic activity because of religious observances.

### Online Course Evaluation

Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx> and are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results are available to students at <https://evaluations.ufl.edu>.

### Schedule (tentative)

The semester is organized in the following subject sequence (*this schedule is subject to change as the semester progresses and as guest speakers or trips are confirmed*):

Week 1:	Introduction of class and to issues of site sustainability
Week 2:	Sustainability theory/metrics (LEED, FGBC, Ecological Footprint, LCA)
Week 3:	Site systems interrelationships; Introduction to LID and stormwater management
Week 4:	Local Field Trip (tentative date); Begin green roof readings
Week 5:	Introduction to Green Roofs
Week 6:	Green Roofs: Climate
Week 7:	Green Roofs: Components (tentative date for guest speaker)
Week 8:	Green Roof Technology: Roof, Waterproofing and Drainage
<b>Week 9: Spring Break</b>	
Week 10:	Green Roof Technology: Water Harvesting
Week 11:	Green Roof Technology: Media; Field Trip (tentative date)
Week 12:	Green Roof Technology: Growth media
Week 13:	Green Roof Technology: Plants; Introduce Special Project
Week 14:	Green Roof Technology: Construction and Maintenance; Special Project
Week 15:	Special Project Presentations (2-person teams; digital presentations)
Week 16:	Student Project Presentations or Discussion groups

Guest speakers have been invited to assist in the presentation of certain topics. The specific dates of speakers and field trips will be announced as the arrangements are confirmed and the schedule will be adjusted as needed.