

BCN 4105/6583 Sustainable Housing
M.E. Rinker, Sr. School of Construction Management
University of Florida

T Period 8 - 9 (3:00 PM - 4:55 PM)

R Period 9 (4:05 PM - 4:55 PM)

Instructor: Dr. Maria Watson
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Office hours will be Thursdays from 1:30pm to 3:30pm or by appointment

Course description: Sustainability emerges from the balance and intersection of “the 3 p’s”: people, planet, and profit. Modern residential planning and building practices of recent decades have often neglected to address even one of these p’s, resulting in residential buildings and landscapes that will be – or currently are – unsustainable in even the near future. Recent efforts have produced processes, practices, and innovations to rectify this situation. Some of these residential practices try to incorporate at least one of these “p’s” into the design-development-financing-construction-occupancy process; some attempt to address more than one. The premise of this course is that “sustainable” includes, but is more than building “green;” and that it needs to address the environmental, social and economic facets of housing, from the home interior to the residential infrastructure. This course examines approaches and exemplars that can advance the development and building of sustainable housing in this light.

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

1. Understand various approaches to developing/constructing sustainable residential environments, ones that incorporate environmental, social and/or financial sustainability practices
2. Identify principles of active and passive sustainable building and infrastructure practices for: energy efficiency and renewables, water efficiency and reuse, ventilation, indoor air quality, waste reduction and recycling, occupant lifespan adaptability and accessibility, occupant health, financial/economic sustainability
3. Compare and analyze sustainable residential practices, identifying limitations, strengths, and contextual applications
4. Examine and explain various metrics and measurements for benchmarking and performance
5. Describe and compare various green building certification programs and health-based building standards for residences/housing

Course Materials and Supply Fees: You are not required to purchase a textbook for this course. Your learning resources will be a mixture of books, academic journal papers, media articles, videos and other sources. These will be available and updated on Canvas. There are no materials and supplies fees.

Weekly Schedule of Topics:

Week	Date (T)	Weekly Topic	Assignment
1	1/13	Introduction	
2	1/20	Rating systems	Assignment 1
3	1/27	Sustainable sites	Assignment 2
4	2/3	Sustainable communities	Project 1 outline
5	2/10	Water	Assignment 3
6	2/17	Materials	Assignment 4
7	2/24	Energy	Assignment 5
8	3/3	Health	Project 1
9	3/10	Accessibility	Assignment 6
10	3/17	Innovative and technology	Project 2 - outline
11	3/24	Spring break, no class	
12	3/31	Resilience	Assignment 7
13	4/7	Affordability	Assignment 8
14	4/14	Housing finance	Project 2 - Slides
15	4/21	Student presentations	
16	4/28	Finals week, no class	Project 2

Evaluation and Scoring: Students will be assessed on their participation in class discussion and reflection, assignments on key concepts and methodologies, and a two projects with regular check-ins throughout the course.

<i>Assessment</i>	<i>Points</i>
Participation in class discussions and reflections	140 (10 each week)
Assignments	160 (20 points each)
Project 1	120 (20 outline + 100 report)
Project 2	180 (20 outline + 40 presentation +100 report)
Total points available	600

Grading Policy: Final grades will be assigned according to the following scale. Divide the total points you earn by the total possible points to obtain your percent. Decimal points will not be rounded.

Assignments are due by the date and time specified on Canvas. Late submissions will be accepted but will receive a maximum possible grade of 50% (half credit)

Percent	Letter Grade
93.0 - 100	A
90.0 - 92.99	A-
87.0 - 89.99	B+

83.0 - 86.99	B
80.0 - 82.99	B-
77.0 - 79.99	C+
73.0 - 76.99	C
70.0 - 72.99	C-
67.0 - 69.99	D+
63.0 - 66.99	D
60.0 - 62.99	D-
0 - 59.99	E

More information on grades and grading policies at UF is available at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Accessing University Academic Policies and Campus Resources

For all other university-wide academic policies and campus resources, please use the following

link: <https://go.ufl.edu/syllabuspolicies>

Instructor note: This syllabus represents my current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.