BCN 4105 SUSTAINABLE HOUSING

SPRING 2025 SYLLABUS

CLASS LOCATION: RINKER 220

TUESDAYS 3:00PM – 4:55PM & THURSDSAYS 4:05PM – 4:55PM

INSTRUCTORS: Dr. Maria Watson
Office location: Shimberg Center for Housing Studies, Rinker 203
maria.watson@ufl.edu
352-273-1194

OFFICE HOURS: Thursdays 9-11am

COURSE WEBSITE: http://elearning.ufl.edu

COURSE COMMUNICATIONS:

This course is set up as a learning community, where a questioning approach is central to building healthy educational relationships. Students should use the discussion board on Canvas to ask questions that the whole class might benefit from considering. Inquiries of a private nature can be sent to maria.watson@ufl.edu.

REQUIRED OR RECOMMENDED TEXTBOOKS:

The purchase of textbooks is not required for this course. Your learning resources will be a mixture of books, academic journal papers, media articles, videos and other sources that arise. These will be advised and updated on Canvas.

The weekly materials will often be discussed in class, so you need to read, listen and watch them in advance of a new module!

COURSE DESCRIPTION:

Sustainability emerges from the balance and intersection of "the 3 e's": environment, economics and social equity. Postindustrial residential planning and building practices of recent decades have often neglected to address even one of these e'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 "e'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.

COURSE LEARNING OBJECTIVES:

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

1) Recognize consequences of climate change, depletion of natural resources, demographic transformations, and economic inequities that threaten to unhinge residential stability and sustainability

2) In light of these threats, to become familiar with various approaches to developing/constructing sustainable residential environments, ones that incorporate environmental, social and/or financial sustainability practices

3) Understand and 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

4) Compare and analyze these sustainable residential practices, identifying limitations, strengths, and contextual applications

5) Examine and explain various metrics and measurements for benchmarking and performance

6) Describe and compare various green building certification programs and health-based building standards for residences/housing

INSTRUCTIONAL METHODS:

The course will use a mix of lectures, discussions, readings, videos and practical group activities in the classroom. There will be a range of guest experts visiting to share about their work, and help to unpack topics. The central approach will be to develop and

maintain a dialogue between all participants in the course (instructor included). You need to review Module materials in advance of attending classes – we will be discussing readings, videos, websites, podcasts etc.

COURSE POLICIES:

ATTENDANCE POLICY:

In order to fully be part of the learning community, you are expected to attend class at Rinker School on Mondays and Wednesdays for the duration of the semester. Requirements for attendance and all work in this course are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

ASSIGNMENT POLICY:

Assignments are due as indicated in the "GRADING POLICIES" section of this syllabus. I do not believe in arbitrary late penalties as a principle, as long as you are getting the work done and keeping lines of communication open about your reasons for late submission. There will be continuous assessment in the course so it is your own responsibility – and in your interests - to not fall behind. If you are going to be late, let me know what is going on BEFORE THE DEADLINE.

That being said, if work is not turned in and no discussion is initiated by the student, I will assume that the work is not in progress and mark as a zero after 7 days.

Any PRESENTATIONS do need to be delivered at the allocated time, due to scheduling impacts on the entire class

STUDENT EVALUATION:

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available athttps://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

UF POLICIES:

UNIVERSITY POLICY ON ACCOMMODATING STUDENTS WITH DISABILITIES:

I believe that all students have a right to access the same opportunities for learning. Inclusivity is critical for a healthy learning environment. Some of you may experience particular disabilities for which you require accommodations. This is something that your instructors need to know about as soon as possible, so that they can plan appropriately. If this is the case, and you have not already done so, you should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) . The DRC is a group of people dedicated to supporting students – they are friendly and there to help. Once you register, the DRC can provide an accommodation letter that you can present to me and other instructors so that we can respond to those needs.

UNIVERSITY POLICY ON ACADEMIC CONDUCT:

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with Dr von Meding.

CLASS DEMEANOR OR NETIQUETTE:

All members of this class are expected to follow rules of common courtesy in the classroom, in email messages, threaded discussions and chats.

When communicating in general, you should always:

- Treat instructor and each other with respect, even in email or in any other online communication
- Feel free to refer to your instructor as Maria (or Dr. Watson or Professor if you are more comfortable)
- Use clear and concise language

- Remember that all college level communication should have correct spelling and grammar, and avoid slang terms
- Be cautious when using humor or sarcasm as tone is sometimes lost in an email or discussion post and your message might be taken seriously or offensive
- Be careful with personal information (both yours and other's)

When you send an email to your instructor, teaching assistant, or classmates, you should:

- Use a descriptive subject line
- Be brief
- Avoid attachments unless you are sure your recipients can open them
- Avoid HTML in favor of plain text
- Sign your message with your name and return e-mail address
- Think before you send the e-mail to more than one person. Does everyone really need to see your message?
- Be sure you REALLY want everyone to receive your response when you click, "reply all"
- Be sure that the message author intended for the information to be passed along before you click the "forward" button

When posting on the Discussion Board, you should:

- Make posts that are on topic and within the scope of the course material
- Take your posts seriously and review and edit your posts before sending
- Be as brief as possible while still making a thorough comment
- Always give proper credit when referencing or quoting another source
- Be sure to read all messages in a thread before replying
- Don't repeat someone else's post without adding something of your own to it
- Avoid short, generic replies such as, "I agree." You should include why you agree or add to the previous point
- Always be respectful of others' opinions even when they differ from your own
- When you disagree with someone, you should express your differing opinion in a respectful, non-critical way
- Do not make personal or insulting remarks
- Be open-minded

GETTING HELP:

For issues with technical difficulties for Canvas, please contact the UF Help Desk at:

- http://helpdesk.ufl.edu
- (352) 392-HELP (4357)
- Walk-in: HUB 132

Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from the Help Desk when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Other resources are available at http://www.distance.ufl.edu/getting-help for:

- Counseling and Wellness resources
- Disability resources
- Resources for handling student concerns and complaints
- Library Help Desk support

Should you have any complaints with your experience in this course please visit http://www.distance.ufl.edu/student-complaints to submit a complaint.

GRADING POLICIES:

METHODS BY WHICH STUDENTS WILL BE EVALUATED AND THEIR GRADE DETERMINED:

Grading will be based foremost on the quality of the submissions by the students. All references must be fully specified at the end of each assignment and keyed into the written text by author, year, and page number(s) if the citation is a book or journal. Spelling and grammar are also subject to evaluation, with the intention to help each learner improve rather than to penalize.

Industriousness, attentiveness, a collaborative spirit, and a passion for learning will help you produce exceptional work.

INFORMATION ON CURRENT UF GRADING POLICIES FOR ASSIGNING GRADE POINTS:

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

Assignment	Points
Assignments (6)	120 (20 each)
Participation (Attendance and Discussion Board)	140 (10 each week)
Project 1	100 (20 outline + 80 report)
Project 2	140 (10 proposal + 20 outline + 30 presentation + 80 report)
	Total points available: 500

ASSIGNMENTS (120 POINTS – 20 POINTS EACH X 6)

There are 6 Assignments to complete throughout the semester. These assignments are introduced at least 5 days in advance of the due date (i.e. by Tuesday's class for a Sunday submission). The assignments are related to an issue or topic discussed in class or in the readings.

PARTICIPATION (140 POINTS – 10 POINTS EACH WEEK X 14)

You are expected to come to classes (it is acceptable to miss class if you let your instructor know what is going on) on Tuesdays and Thursdays, and participate in discussions and activities. Each week, there will also be a discussion board prompt where you will have the chance to reflect on the material covered that in a brief response. You will also be able to respond to the reflections of your peers.

If you do all of this each week, you will receive 10 points. If you partially participate, you may receive some of the points. Hopefully everyone will receive all possible points in this part of the assessment!

PROJECTS

Projects are more comprehensive than assignments, consisting of: precedent and information search, description, comparison, analysis, and recommendations.

There are 2 Projects this semester. Details of all projects and due dates will be provided in class and on Canvas.

Any PhD students must also prepare for and undertake a class lecture (approximately 30-40 minutes) on a topic of residential sustainability that reflects their doctoral studies' concentration and specialty (i.e. project 3 for doctoral students). PhD students will work with instructor in preparing for these lectures

PROJECT 1 (100 POINTS)

This will be a scaffolded assessment with a chance for feedback after submission of a report outline. A project brief will be provided early in the semester.

PROJECT 2 (140 POINTS)

This will be a scaffolded group assessment with marks accumulating over 6 weeks. The class will be broken into groups. A project brief will be provided early in the semester. There may be individual tasks and assessment criteria, but all students will contribute towards a report plus a presentation to the class.

FORMAT FOR WRITING:

Follow the American Psychological Association (APA format) available at *http://apastyle.org*

ATTENDNANCE:

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/

GRADING SCALE:

For information on how UF assigns grade points, visit: https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/

A	94 – 100% of possible points		C	74 – 76%
A-	90 – 93%		C-	70 – 73%
B+	87 – 89%		D+	67 – 69%
B	84 – 86%		D	64 – 66%
B-	80 – 83%		D-	60 – 63%
C+	77 – 79%		F	<60

**** All work must be your (or your group's) original work and must not have been submitted to other courses in UF or any other educational institution. ****

GENERAL WRITING RUBRIC:

This will be used for written assignments:

	A: 90 – 100	**B: 80 – 90**	**C: 70 – 80**	**D: 60 – 70**	**E: < 60**
Ideas (40pts)	Excels in responding to the assignment. Demonstrates sophisticated thinking. Central ideas are clearly communicated and complexity of ideas are presented. Understands and critically evaluates and cites sources. **(36-40)**	A solid paper, mostly responding to the assignment. Clear statement of ideas, but may have some minor issues or incomplete discussions. Shows careful reading of sources, but perhaps not as sophisticated of use of sources. **(32-36)**	Paper responds to the assignment but weakly. There is a central idea, but it is not sufficiently described and communicated. Often very general thoughts presented. **(28-32)**	Does not present a clear idea or respond full/appropriately to the assignment. Central idea is vague. **(24-28)**	Does not respond to the assignment. Lacks central idea. **(0-24)**

Organization and Coherence (30pts)	Logically structured paper for its purpose. Paper guides the reader through a progression of ideas. **(27-30)**	Shows a logical progression of ideas and uses fairly sophisticated transitional devices. Some logical links are absent or faulty. Each paragraph matches the central idea of the paper. **(24-27)**	Lists ideas or includes central ideas, but not in an organized structure. Uses transitions simply and sequentially. On their own, each paragraph responds to the central idea, but it isn't synthetically structure. Some lack of coherence in sentences. **(21-24)**	Random organization with no real structured coherence. Paragraphs lack structure and not all sections relate directly to central idea. **(18-21)**	No organization lacks coherence. **(0-18)**
Support (10pts)	Uses evidence appropriately and effectively. **(9-10)**	Begins to offer reasons to support paper's key points and often using a variety of evidence/sources. Makes connections between ideas and evidence, but doesn't fully use evidence effectively. **(8-9)**	Uses generalization or opinions to support its points. Uses examples, but they aren't directly connected or relevant. Personal experience and assumptions are common. **(7-8)**	Clichés and overgeneralization s are relied upon with little reference to resources or evidence. Personal narrative dominates informed narrative. **(6-7)**	Uses irrelevant details or lacks supporting evidence. **(0-6)**
Style (10pts)	Chooses words with precision and uses specificity. Sentences are clearly structured and carefully	Uses words accurately and effectively but not necessarily with precision. Sentences are clear, structured, and focused, though some may be	Uses vague and general words. May use some inappropriate language. Sentences are structured correctly, but perhaps unfocused,	Vague, abstract, and personal in content. Several awkward sentences. Sentence structure is simple and doesn't facilitate	Awkward sentences throughout. Misuse of words. Inappropriate language. **(0-6)**

	focused, not rambling. **(9-10)**	awkward or incomplete. **(8-9)**	repetitive or confusing. **(7-8)**	understanding. **(6-7)**	
Mechanics (10pts)	Entirely free of spelling, punctuation, and grammatical errors. **(9-10)**	Contains a small amount of errors that challenge the reader, but don't interfere with understanding. **(8-9)**	Several mechanical errors that interfere with meaning, but don't impede overall understanding. **(7-8)**	Many mechanical errors that challenge meaning. Hard to understand connections. **(6-7)**	Many mechanical errors making it impossible to understand. **(0-6)**

GENERAL PRESENTATION RUBRIC:

This will be used for presentations:

Course Schedule:

CRITICAL SUBMISSION DATES:

Assignments: As per Canvas but generally on *Sundays at midnight*.

Participation: As per Canvas but generally expected to post to discussion board by *Friday at midnight*.

Project 1 – TBD, see Canvas for updated information

Project 2 – TBD, see Canvas for updated information

OVERVIEW OF TOPICS:

The course material is divided into 6 modules. The schedule and required readings for these modules and class periods will be provided on Canvas. Topics within each module include:

Module 1 - History and Context

- Global Frameworks, Goals and Theory
- Sustainability in a Housing Context
- History of Housing Practices

Module 2 - Residential Structures and Infrastructure

- Vernacular Housing Practices and Sustainability
- Passive Solar Design in Historical and Contemporary Context
- Systems for Efficiency + Conservation: Heating, Cooling, Ventilation, Daylighting
- Green Infrastructure

Module 3 – Sustainable Neighborhoods

- Low Impact Development (LID), Bioretention, Hardscapes, Eco-Density, TOD, UHI Location Efficiency
- Mixed-Use Development and Zoning
- Urban Sprawl and Density
- Suitability Analysis and GIS

Module 4 – Resilient Housing

- Resilience and Sustainability Concepts and Measurements
- Trends Towards Resilience Assessment
- Floodplain Designations and Building Codes
- Disaster Mitigation

Module 6 – Economics of Housing

- Housing Policy
- Real Estate Markets
- Affordable Rental Housing Strategies
- Ownership and Housing Financing Models

Module 5 – Health & Equity

- Demographic Transformations and Alternative Housing Models
- From Sick Buildings to Healthy Homes; Measures and Metrics of Building Performance for Occupant Health including design/construction residential certifications for occupant health
- Universal Design, Lifespan Housing, and Housing Accessibility as Sustainability Practices

<u>Disclaimer:</u> This syllabus represents the 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.

Last update: 1/7/2025