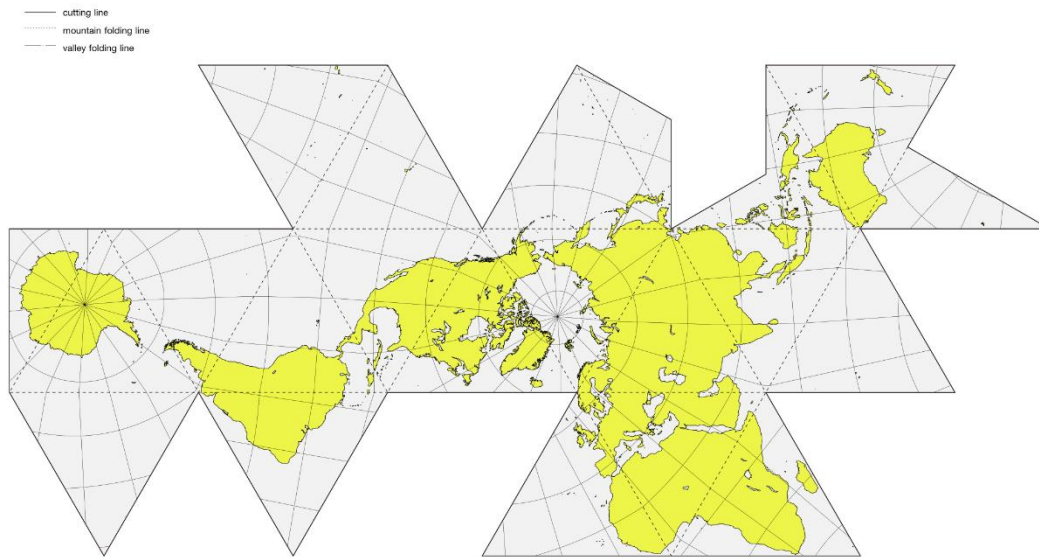


ARC 6399 Global Approaches
Tuesdays 12pm-3pm
Prof. Nancy Clark
Virtual Office Hours: Thursdays 11am-12 pm or by appointment
Contact: nmclark@ufl.edu

Global Approaches to Sustainable Architecture, Regenerative Design, Healthy & Just Cities



Dymaxion Map, R. Buckminster Fuller

"I am a Passenger on Spaceship Earth."
R. Buckminster Fuller

INTRODUCTION

Increasing social and physical environmental challenges require an examination of the evolving practices of architecture, city-making, and the design of our environments seen through a regenerative perspective. Numerous case studies at various scales and locations will be introduced during the semester to expand student's knowledge of innovative approaches and new models for addressing the complex relationship between the natural and constructed realms. Course readings address key concepts and theories of sustainability and regenerative design, including the role of public policy, governance, and assessment tools.

Students will begin with critical analyses of contemporary sustainability frameworks such as the UN Sustainable Development Goals, the UN Urban Agenda, LEED/USGBC and other certification programs, Resilient Cities Network, and Project Drawdown. Student research will also include a discussion of specific applications for each framework and theory with prospective studies. Building upon this foundational knowledge, students will develop a series of material stories which explore a given material from matter to form, including acts of embodiment and dis embodiment, understanding how a specific material is made, maintained, recycled, upcycled, decomposed. This research will require students to engage the *actual* scales of the environment and the scales of time embedded in our constructed world. Each student will shape an area of focused research based on their emerging interests in sustainability and relative to the course materials. Individual research culminates in a final paper and presentation that evidences the students understanding of the impact of historical and contemporary global approaches, methods, and practices on the social, economic, and environmental issues related to resilient, regenerative architecture and urbanism involving design, technology, public policy, building science, and the environment.

COURSE SCHEDULE & ASSIGNMENT OVERVIEW

Phase I: ***Understanding the History and Future -Frameworks and Theories*** Weeks 1-7

Critical analysis, presentations, and discussions of key frameworks, concepts, and theories of sustainability and regenerative Design including architecture, urbanism, and the built environment as well as community health, wellbeing, and quality of life.

Part A: Green/Eco/Bio Architecture, Sustainability, and Regenerative Design (Weeks 1-3)

Part B: The Role of Public Policy, Governance, and Assessment (Weeks 4-7)

Week 7: Summer C Break- No Class June 25th.

Phase II: ***Material Stories -Cycles of Matter & Form*** Weeks 8-9

Explore materials from matter to form, including acts of embodiment and disembodiment, and the geographical and temporal implications of constructed realm. Project/graphic presentation explaining how specific material is made, maintained, recycled, upcycled, decomposed. Research includes a study of both traditions and innovations.

Phase III: ***Research Paper + Presentation*** Weeks 10-13

Develop individual focus area topic of research including case studies and literature review based on knowledge and evolving interests from previous course work weeks 1-9

Culminates in a 2000-word min. paper and a complimentary 10-minute graphic-based power point presentation.

EVALUATION OF COURSEWORK*

| | |
|--|-----|
| Exam | 15% |
| Assess Understanding of Key Concepts, Terminology, & Documents | |
| Phase I and II Assignments | 60% |
| Class Participation, Presentation Assignments (30%) | |
| Assignment Summary Notes (30%) | |
| Research Paper + Research PPT | 25% |
| 2000-word paper and 10-minute graphic-based power point | |

* Evaluation Grading Rubrics will be provided on all assignment documents and in the Assignment Folder, on Canvas.

COURSE RESOURCES (selected)

- UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS (SDGs)

17 Sustainable Development Goals

<https://sdgs.un.org/goals>

UN Agenda 2030

<https://sdgs.un.org/publications/transforming-our-world-2030-agenda-sustainable-development-17981>

(See link to PDF at bottom of webpage)

Chronology of Milestones

<https://sustainabledevelopment.un.org/resourcelibrary>

Our Common Future (Brundtland Report)

<https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>

(pgs. 5-22)

SDGs Cities Challenge

<https://sites.research.unimelb.edu.au/cities/projects/sdgs-cities-challenge/2020-sdgs-cities-challenge>

SDGs, Climate Change and Cities Symposium and Report

<https://msd.unimelb.edu.au/sdg-cities#videos>

<https://msd.unimelb.edu.au/sdg-cities/assets/SDGs-Climate-Change-and-Cities-Report.pdf>

- INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC)

<https://www.ipcc.ch/>

Sixth Assessment Report 2022

<https://www.ipcc.ch/report/sixth-assessment-report-cycle/>

Fifth Assessment Report 2014

<https://www.ipcc.ch/report/ar5/syr/>

Climate Change and Land Special Report

<https://www.ipcc.ch/srccl/>

- UN HABITAT

<https://unhabitat.org/>

New Urban Agenda

<https://unhabitat.org/about-us/new-urban-agenda>

https://unhabitat.org/sites/default/files/2020/12/nua_handbook_14dec2020_2.pdf

Habitat 3

<https://habitat3.org/the-new-urban-agenda/>

- CIRCULAR / DOUGHNUT THEORY

Ellen MacArthur Foundations

[Cities and a circular economy | Ellen MacArthur Foundation](#)

Kate Raworth-Doughnut Theory

<https://www.kateraworth.com/doughnut/>

Amsterdam City Doughnut PDF

<https://www.kateraworth.com/wp/wp-content/uploads/2020/04/20200406-AMS-portrait-EN-Single-page-web-420x210mm.pdf>

Amsterdam City Doughnut Government Policy

<https://www.amsterdam.nl/en/policy/sustainability/circular-economy/>

Circular City (Funding)

<https://www.circularcityfundingguide.eu/circular-cities/>

- **PROJECT DRAWDOWN**
<https://drawdown.org/>
- **HOLCIM**
<https://www.holcim.com>
- **AGA KHAN**
<https://www.akdn.org/what-we-do/architecture>
- **C40 CITIES**
[C40 Knowledge Hub](#)
- **TUDELFT PhDs on ARCHITECTURE AND BUILT ENVIRONMENT**
[Archives | A+BE | Architecture and the Built Environment \(tudelft.nl\)](#)
- **NEWS, BLOGS & MEDIA RESOURCES (selected)**
<https://dailyarchitecturenews.com/sustainability/>
<https://www.bloomberg.com/green>
https://www.sciencedaily.com/news/earth_climate/sustainability/
<https://www.nytimes.com/topic/subject/sustainable-development>
<https://www.nature.com/npiurbansustain/news-and-comment>
<https://www.domusweb.it/it/citta-sostenibili.html>
<https://www.businessgreen.com/type/news>
<https://archinect.com/news/tag/10648/sustainable-architecture>
<https://www.archdaily.com/category/sustainability>
<https://www.dezeen.com/tag/sustainable-architecture/>
<https://www.scientificamerican.com/environment/>
<https://countdown.ted.com/>
<https://www.weforum.org/videos/collections/pioneers-for-our-planet>

UNIVERSITY, COLLEGE, AND SCHOOL POLICIES

UF Coronavirus Policies and Campus Operations

Visit <https://coronavirus.ufl.edu/health-guidance/> to stay up to date on UF's COVID related Policies

Attendance Policy, Class Expectations, and Make-Up Policy

Attendance is mandatory. Three or more unexcused absences may result in an administrative drop from the course. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies. [Click here to read the university attendance policies.](#)

Grading Policy

| Percent | Grade | Grade Points |
|----------------|--------------|---------------------|
| 93 - 100 | A | 4.00 |
| 90 – 92.9 | A- | 3.67 |
| 87 - 89.9 | B+ | 3.33 |
| 84 – 86.9 | B | 3.00 |
| 80 – 83.9 | B- | 2.67 |
| 77 - 79.9 | C+ | 2.33 |
| 74 – 76.9 | C | 2.00 |
| 70 - 73.9 | C- | 1.67 |
| 67 - 69.9 | D+ | 1.33 |
| 64 - 66.9 | D | 1.00 |
| 61 - 63.9 | D- | 0.67 |
| 0. - 60.9 | E | 0.00 |

More information on UF grading policy may be found at:

[UF Graduate Catalog](#)

[Grades and Grading Policies](#)

Students Requiring Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the [Disability Resource Center](#). It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course 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. [Click here for guidance on how to give feedback in a professional and respectful manner.](#) 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 ufl.bluera.com/ufl/. [Summaries of course evaluation results are available to students here.](#)

Distance Learning Privacy Policy

Our class sessions may be audio-visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image agree to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat"

feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

In-Class Recording

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, and exams), field trips, and private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third-party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

University Honesty Policy

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 honor 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](#) 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 the instructor or TAs in this class.

Students in the School of Architecture are expected to adhere to all University of Florida academic honesty policies. Failure to do so will result in lowered grades and/or referral to the University Honor Court. Since the University’s policies are necessarily generalized, the School of Architecture further clarifies academic honesty within the specific setting of design education. The following acts are considered to be academic dishonesty:

1. Plagiarism/misrepresentation

There shall be no question about what your work is and what someone else’s is. This applies to all aspects of student performance, including but not limited to

- CAD drawings and construction details
- design guidelines (written and graphic)
- design, planning, and management projects or portions of projects
- class reports and papers (again, both written and graphic information)
- any assignment where sole authorship is indicated, such as take-home tests, individual projects, etc.

Examples of inappropriate activities include:

- copying graphics for a report without crediting the original source
- representing someone else’s work as your own (using existing CAD construction details, tracing drawings, etc.)

- allowing someone else to represent your work as his own

Given the collaborative nature of design studios, interaction between students is desirable, but the intention and degree of assistance must be appropriate. For example, it is appropriate to discuss the assignment/method/software program/course materials—but it is not appropriate to solve or resolve a large portion of the project together.

The importance of precedent and learning from past works is a necessary part of most design processes. Again, it is the intent and degree of “borrowing” ideas that is at question.

Anything not original must be paraphrased and cited, or quoted; using accepted style formats such as APA, MLA, Chicago Manual of Style, etc. This includes information obtained from the Internet, public documents, graphics, and personal interviews as well as more traditional written sources. Proper crediting of all information that is not common knowledge is necessary for academic honesty as well as for professionalism. (For example, analysis drawings and/or text should cite the sources from which data was obtained so that if questions arise later, they can be quickly and accurately answered.)

Multiple submissions of the same or similar work without prior approval

If the instructors understand that you are doing a paper associated with your thesis or senior project topic, then doing similar work for two different classes is acceptable—if the instructors agree to it. If a single paper is submitted for one class, then later is submitted for another, and the instructors expect original work, then the multiple submission is inappropriate.

2. Falsifying information

Examples include:

- misrepresenting reasons why work cannot be done as requested
- changing or leaving out data, such as manipulating statistics for a research project, or ignoring/hiding inconvenient but vital site information. (However, for educational purposes only, certain aspects of the “real world” may be jointly agreed upon as not being pertinent to the academic goals of the course, such as not dealing with specific project parameters or budget, changing the program, etc.)
- altering work after it has been submitted
- hiding, destroying, or otherwise making materials unavailable (hiding reference materials, not sharing materials with other students, etc.)

Software Use

All faculty, staff, and students at the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see the [Notification to Students of FERPA Rights](#).

Campus Resources:

Health and Wellness

U Matter, We Care:

If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: counseling.ufl.edu/cwc, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or police.ufl.edu.

Academic Resources

[E-learning technical support](#), 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.

[Career Resource Center](#), Reitz Union, 392-1601. Career assistance and counseling.

[Library Support](#), Various ways to receive assistance with respect to using the libraries or finding resources.

[Teaching Center](#), Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.

[Writing Studio](#), 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.

[Student Complaints Campus](#)

[On-Line Students Complaints](#)