

Title and Number: DCP 3200 Methods of Inquiry

Term/Section: Fall 2025 | 3 Credits

Course Time & Location: Traditional Lecture: Monday 10:40 AM – 12:35 PM

Wednesday 10:40 AM – 11:30AM (RNK 106)

#### INSTRUCTOR INFORMATION

Name: Dr. Patricia Kio

Instructor's Office: AH 132 (Antevy Hall) | Phone: 352 294 1425

Email Address: p.kio@ufl.edu

Office Hours: Tuesdays (12:00 –2:00 PM) | Thursdays (10:00 AM –12:00 PM)

Other times: By appointment (virtual & in-person)

**Co-requisite**: None | **Prerequisite**: Junior Standing or higher (student should have completed at least 60 semester credit hours).

**General Education Credit**: None

Final Exam Schedule: No final exam for this course.

**Patricia N. Kio**, PhD is an Assistant Professor in the School of Architecture at the University of Florida. Her research focuses on designing for a changing climate, utilizing cutting-edge technologies to create more sustainable and resilient environments. Dr. Kio investigates how artificial intelligence can enhance decision-making in ecological design, how emerging technologies can enable circular construction practices, and how digital twin infrastructure can support long-term urban sustainability.

Before joining academia, Dr. Kio worked with architectural firms in Nigeria, bringing a global perspective to her teaching and research. She earned her PhD from Texas A&M University, and both her MSc and BTech from Rivers State University. She also serves on the Editorial Board of the Technology | Architecture + Design journal.

Dr. Kio is passionate about helping students connect design with real-world impact, and she looks forward to exploring these ideas with you throughout the semester.

#### COURSE DESCRIPTION

A wayfinder course for the DCP Program in Sustainability and the Built Environment (SBE) exploring career pathways and the breadth of methods of inquiry (the process of asking and then answering questions) commonly used by planners, designers and builders, as well as those who study all environments along the natural-to-urban transect. This course summarizes the forms, functions, frameworks, and scholarly opportunities underpinning the SBE academic journey from matriculation to graduation and careers beyond.

Foci include the SBE culture and curricula, the critical thinking process, the scientific method, and research design, with an emphasis on approaches pertinent to SBE allied professions. Students will learn to evaluate and rebut claims, develop a project management strategy, design a research protocol, gather and analyze data, and communicate with diverse stakeholders in a student-centered approach.

### **COURSE GOALS & OBJECTIVES**

- Discover and delineate a personally tailored pathway for SBE specialization, coursework, and professional development;
- Learn and apply the elements of thought from the wheel of reason to evaluate claims within your field of interest;
- Utilize critical thinking strategies and research design methods to examine contemporary issues in sustainability and the built environment;
- Evaluate and develop personal philosophies of science;
- Explore data collection, analysis methods, and writing strategies most applicable to different types of research questions; and
- Conceptualize and develop a problem statement and a proposal for a research project (e.g., SBE Capstone).

# STUDENT LEARNING OUTCOMES (SLO)

Upon completion of this course, successful students will be able to:

- Combine information from multiple sources to solve problems (SLO 4).
- Collect and analyze data to solve problems (SLO 6).
- Produce an effective oral presentation (SLO 9).
- Produce effective written communications (SLO 10).

The learning outcomes for DCP 3200 can be viewed here.

### ACCESSIBILITY & DISABILITY-RELATED ACCOMMODATIONS

Here is a link to academic policies and resources: <a href="https://go.ufl.edu/syllabuspolicies">https://go.ufl.edu/syllabuspolicies</a>

UF is committed to creating an inclusive environment. Students requiring accommodations should contact the University's Disability Resources Center (DRC) at <a href="https://disability.ufl.edu/">https://disability.ufl.edu/</a> as early as possible. Please inform me during office hours or via email about any access needs so we can work together to provide appropriate support. Course materials are available in accessible formats upon request.

# REQUIRED TEXT/READING

- Fahy, F., & Rau, H. (Eds.). (2013). *Methods of sustainability research in the social sciences*. Sage.
- In addition to the recommended textbook and required readings, other readings including book chapters, reports, and articles from academic journals and industry magazines will be assigned throughout the semester. Students are expected to complete readings as advance preparation for class discussions and project goals.

### INSTRUCTIONAL METHODS AND EXPECTATIONS

This course includes lectures, readings and reflections, multimedia materials, in-class engagement activities (individuals and groups), research/writing and two projects. The following is a summary of expectations:

- Student expectations of instructor: enthusiasm for the course; engaging lectures; application of knowledge through classroom activities and fieldwork; easy to access course materials; clear guidance and assessment rubric; openness and encouragement of critical thoughts and new ideas; constructive feedback, and reasonable flexibility to meet with students outside of class.
- Instructor expectations of students: compassionate curiosity; positive attention and intention; enthusiasm about learning new ideas and contribution to the learning environment, consistent attendance; punctual arrival; active participation in class discussions and activities; advance-reading and note preparation of assigned reading; ontime completion/submission of all assignments; proper citation management; professional attitude, adherence to proper netiquette and all University rules and regulations.

# COURSE COMMUNICATIONS AND E-LEARNING/ CANVAS PORTAL

The instructor will utilize the UF Canvas e-Learning portal as the primary medium to send announcements and to distribute course information assignments, reading materials, resources, and grading. Students are responsible for checking Canvas portal regularly for announcements, course content, access to all supplemental readings, and to submit assignments and projects. Lecture slides will be posted on Canvas in advance of each scheduled lecture. Reviewing materials online is not a substitute for class attendance. Lectures posted on Canvas by the instructor are not intended to be a complete study aid and should be viewed as supplementary to personal notes.

### METHODS BY WHICH STUDENTS WILL BE EVALUATED OUT OF 1000

	Item	Points (Percentage)	Description	Deadlines
	Item	(1 ercentage)	Description	Deadines
1.	Attendance	50 (5%)	For regular class attendance Contribute to discussion	Every class
2.	Participation & Discussions	100(10%)	threads on Canvas and in class discussions	24 hours
3.	Reading Reflections (flexible modes)	200 (20%)	Individual Readings from Textbook	on Canvas
4.	Group Project	200 (20%)	Inquiry for Extreme Weather Events	Oct 6, 2025
5.	Research Paper (Group project)	200 (20%)	Research presentation and paper	Nov. 17, 2025 Deliverable- Presentation and paper serve as the final exam
6.	Quizzes	150 (15%)	Three quizzes (Online and open book)	<ul> <li>Quiz 1- Sep 3</li> <li>Quiz 2 - Oct 1</li> <li>Quiz 3 - Oct 22</li> </ul>
	Attend DCP 4290		Attend SBE Fall Capstone presentations and submit a one-page summary of three presentations that interest you.  Date: 12/01/2025 or 12/03/2025	
7.	Presentation	100 (10%)	Time: 8:00 AM – 14:00 PM	Due Dec 4, 2025
	Total	1000(100%)		

#### **ATTENDANCE**

Attendance will be kept. Students are expected to attend classes regularly. 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 <a href="https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx">https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx</a>

### **MAKE-UP POLICY**

Students shall be permitted a reasonable amount of time of one week to make up the material or activities covered during absence from class or inability to engage in class activities because of the acceptable reasons for absence stated in the university policy. <a href="https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx.">https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx.</a>. However, students are to present a legitimate reason for late work. There will be a deduction of 10% of the points for every day that work is late. The maximum deduction is 50%. This is to be fair to other students who turned in their work by the deadline.

#### **DISCUSSION SCALE**

Your participation in Canvas and class discussions will be evaluated using this percentage scale for points towards your final grade for the semester.

- 1. 100 = Student often contributes thoughtful comments and insights based on class materials and has been a catalyst for other student comments as well as instructor response; listens to the comments and insights of others with respect and attention.
- 2. 80 = Student regularly contributes thoughtful comments and insights based on class materials, which results in student as well as instructor response; listens to the comments and insights of others with respect and attention.
- 3. 60 = Student sometimes contributes comments and insights based on class materials, more often at instructor's prompting; generally polite but could be more engaged in class discussions.
- 4. 40= Student seldom contributes comments and insights of her/his own volition; comments are not always relevant to materials or discussion at hand; needs to pay more attention to the contributions of the instructor and peers.
- 5. 0= Student rarely and reluctantly contributes to class discussions; comments minimal and/or disrespectful; often noticeably disinterested in instructor's and peers' contributions.

# **REFLECTIONS**

Students will submit a 2-page <u>summary</u> of a chapter from the textbook *Cradle To Cradle: Remaking The Way We Make Things* on Canvas. Students agree that by taking this course all required papers may be subject to submission for a textual similarity review to Turnitin.com via Canvas for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin.com service is subject to the Usage Policy posted on the Turnitin.com site. Students who do not agree should contact the course instructor immediately. The maximum Turnitin similarity index report of submissions is 20%.

#### **PROJECT**

The purpose of this assignment is to prepare you to develop the knowledge and skills needed to assess resilient structures that can survive and thrive during extreme weather events in a changing environment.

To tackle today's holistic challenges, it is important to also develop skills of effective collaboration. To that end, you will be working in teams via Zoom, etc. with students from other courses at Texas A&M University, such as:

- TAMU COSC 631 Sustainable Construction, led by Dr. <u>Zofia Rybkowski</u> (Section 601), and Dr. <u>Mo Hu</u> (Section 602)
- TAMU COSC 635/435: Life Cycle Assessment in Building Construction, led by Dr. Manish Dixit Canvas.

### **QUIZZES**

Quizzes will be made available on Canvas and they are open book. Students are expected to take quizzes individually and not collaborate with others. There will be 3 quizzes worth 50 points each. Each quiz comprises 10 questions and the quizzes are non-cumulative.

#### RESEARCH PAPER

Students will complete a research paper (3000 words minimum) to be submitted on Canvas. Plagiarism will result in a grade of 0 (this includes self-plagiarism). Students agree that by taking this course all required papers may be subject to submission for a textual similarity review to Turnitin.com via Canvas for the detection of plagiarism. All submitted reports will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin.com service is subject to the Usage Policy posted on the Turnitin.com site. Students who do not agree should contact the course instructor immediately. The maximum Turnitin similarity index report of submissions is 20% and the research paper will be graded with this <u>rubric</u>.

### **GROUP WORK RULES**

You will work as a team with folders in Canvas. The last page of your report should be titled "Group work" where you will submit a list of all your team members and the contributions of team members. The contribution of team members will be assessed with this rubric.

### FLEXIBILITY & CHOICE

Students may choose between different formats for assignments (e.g., written essays, presentations, visual projects, oral reports) to express their understanding and engagement.

### **ENGAGEMENT & SUPPORTS**

- Multiple means of engagement are provided, such as group discussions, creative activities, and technology-supported collaborations.
- Students are encouraged to share their preferred modes of participation; I am available to support diverse engagement strategies.
- Additional resources include tutoring, writing centers, counseling, and peer support networks, accessible via UF's Student Resources page.

### **GUIDANCE FOR STRUGGLING STUDENTS**

If you encounter challenges, contact me early! Resources available include:

- Academic coaching
- Accessibility services
- Peer study groups
- Recorded lectures and accessible transcripts
- Visual, auditory, and kinesthetic learning supports

Please inform me of your needs so we can tailor support.

#### **GRADING**

# **Grading Scale**

A	A-	B+	В	В-	<b>C</b> +	С	C-	D+	D	D-	E
93– 100	90– 92.99	87– 89.99	83– 86.99	80– 82.99	77– 79.99	73– 76.99	70– 72.99	67– 69.99	63– 66.99	60– 62.99	0– 59.99
4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	0.67	0.0

### OTHER IMPORTANT COURSE INFORMATION

# **Late Work Policy**

Students are to present a legitimate reason for late work. There will be a deduction of 10% of the points for every day that work is late. The maximum deduction is 50%. This is to be fair to other students who turned in their work by the deadline. Once Canvas assignment closes, we do not accept any assignments, unless you have a legitimate reason for late or missed work.

# **Classroom Etiquette**

Talking to each other and disrupting the class violates your fellow students' right to have a good learning experience in the class. If a student must say something to another person or persons besides the instructor, that student is free to leave the room. Students need to be considerate that others must be able to hear the instructor clearly without being disturbed by unnecessary conversations or disruptions. Cell phones and all noise-making devices must be silent during class times as well. Cell phones and all noise-making devices must be silent during class times as well.

## **Email Policy**

E-mail is appropriate only for quick messages and replies. You are welcome to e-mail me with brief questions or comments (e.g., a request for an appointment, a question that can be answered in a sentence or two). I will answer your messages as I have the opportunity but cannot guarantee immediate responses. Note also that e-mail messages (particularly last-minute e-mail messages) cannot be accepted as fulfilling class obligations or providing excuses for failing to do so.

# **Students Requiring Accommodations**

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <a href="https://disability.ufl.edu/">https://disability.ufl.edu/</a> by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with any disability should follow this procedure as early as possible in the semester.

# University of Florida Student Honor Code, Original Work, And Plagiarism

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 <u>Honor Code</u>. 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 Conduct Code specifies a number of behaviors that are in violation of this code and the possible sanctions. See the <u>UF Conduct Code website</u> for more information. If you have any questions or concerns, please consult with the instructor or TAs in this class.

### **Course Evaluation**

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online. Students can complete evaluations in three ways:

- The email they receive from GatorEvals,
- Their Canvas course menu under GatorEvals, or
- The central portal at https://my-ufl.bluera.com/

provide Guidance how constructive feedback available is at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens. **Summaries** evaluation course results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

# **Materials and Supplies Fee**

There are no additional fees for this course.

#### COURSE MODULES AND TOPICS\*

Detailed weekly plans, readings, quizzes, and course content will be available on Canvas throughout the semester and will be announced in class.

### **CAMPUS RESOURCES**

- Health and Wellness U Matter, We Care: If you or a friend is in distress, please contact <u>umatter@ufl.edu</u> or 352-392-1575 so that a team member can reach out to the student.
- Counseling and Wellness Center: <a href="https://counseling.ufl.edu/">https://counseling.ufl.edu/</a>, 392-1575 Sexual Assault Recovery Services (SARS): Student Health Care Center, 392-1161.
- University Police Department: 392-1111 (or 9-1-1 for emergencies). <a href="http://www.police.ufl.edu/">http://www.police.ufl.edu/</a> UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; Visit the <a href="https://www.police.ufl.edu/">UF Health Emergency Room and Trauma Center website</a>.
- Academic Resources E-learning technical support, 352-392-4357 (select option 2) or e-mail to <a href="Learningsupport@ufl.edu"><u>Learningsupport@ufl.edu</u></a>. Visit the website at <a href="https://training.it.ufl.edu/services/elearning-tools--services/">https://training.it.ufl.edu/services/elearning-tools--services/</a>

- Career Connections Center, Reitz Union, 392-1601. Career assistance and counseling. https://career.ufl.edu/
- Library Support, <a href="http://cms.uflib.ufl.edu/ask">http://cms.uflib.ufl.edu/ask</a>. 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. http://teachingcenter.ufl.edu/
- Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. <a href="http://writing.ufl.edu/writing-studio/">http://writing.ufl.edu/writing-studio/</a>
- On-Line Students Complaints: https://distance.ufl.edu/student-complaint-process/

# COURSE ACTIVITIES AND MAJOR ASSIGNMENTS

*NOTE:* This is a tentative schedule and is subject to change at the discretion of the instructor.

Week/ Date	Topics & Readings	Activities & Assignments	Accessibility & Support Notes
8/25	Introduction & Course Overview (Syllabus) - Course structure; basic concepts of inquiry	Icebreaker activity: share interests via video or discussion posts; Reading 1: Textbook – Part 1 Measuring the immeasurable? The Challenges and Opportunities of Sustainability Research in the Social Sciences, p1-24	Materials in accessible formats; Career Preparation & Pathways   Program in Sustainability and the Built Environment
9/3	Principles of inquiry ethics; population and sample	9/1 - Holiday Project 1- Inquiry for Extreme Weather Events; Quiz 1 on 9/3/25	Flexible submission modes; alternative media support <a href="Qualtrics">Qualtrics</a> population and sample.
3 9/8	Literature review with librarian- Ann Baird 9/8;	Discussion on project stressors. Reading 2: Part II- Researching local Lives: Experiences of (Un)sustainability among Individuals; Households, and Communities-Household Analysis: Researching 'green' lifestyles, a survey approach; Assignment: Project 1- Phase 1	Transcripts, audio descriptions, multiple engagement options  Sampling Methods  City of Gainesville data

9/15	Major sources of data on the built environment: U.S. Census Bureau, National Renewable Energy Laboratory, EPA-Built and natural environments, Department of Energy-Building technologies office, HUD User; Sampling Methods	Comparing U.S. Census Bureau, National Renewable Energy Laboratory, EPA- Built and natural environments; Discussion on AI Cookbook activity;  Reading 3: Part II- Social Groups and Collective Decision-making: Focus group approaches	Materials in accessible formats on Canvas
5 9/22	Data distribution and variable types (Part 1)	Reading 4: Part II- Local Lives and Conflict: Towards a methodology of dialogic research. Measurements and Aggregation; Measures of Dispersion; Assignment: Project 1- Phase 2	Quiz 2 on Canvas
6 9/29	Data distribution and variable types (Part 2)	Reading 5: Part III- Comparative Research on the Sustainability Performance of Cities, Regions and Nation-states; Sustainable Development of What? Contesting global development concepts and measures; data visualization techniques: ways of understanding data distribution  Quiz 2- 10/1/2025	Choice of artistic formats; accessible presentation tools
7 10/6	Presentations: Designing & Constructing for Extreme Weather Events- 10/6;	Reading 6: Part III- Comparative Research on the Sustainability Performance of Cities, Regions and Nation-states; Sustainable Development of What? Contesting global	Flexible submission modes; alternative media support

	T-test: one sample and two-sample t test; Hypothesis testing	development concepts and measures.			
8 10/13	Chi-square test and correlation of two numeric variables	Reading 7: Part III- Biophysical Indicators of Society-Nature interaction: Material and energy flow analysis, human appropriation of net primary production and the ecological footprint	Choice of artistic formats; accessible presentation tools-Google colab		
9 10/20	Multivariate Regression	Reading 8: Part III- Mapping for Sustainability: Environmental noise and the city; Quiz 3- 10/22/2025	Flexible submission modes; alternative media support		
10 10/27	How to write a research paper (Part 1) Introduction & Literature Review	Reading 9: Part IV- Time in Focus; Everyday Life in Transition: Biographical research and sustainability	Materials in accessible formats; captions on videos		
11 11/3	How to write a research paper (Part 2); Research design, Results, Discussion & Conclusion	Reading 10: Part IV- Time and Sustainability	Flexible submission modes; alternative media support		
12 11/10	Reviews	Research paper review	Materials in accessible formats; captions on videos		
13 11/17	Conclude the research paper	Reading 11: Part V- Current Developments and Future Trends; Researching Complex Sustainability Issues: Reflections on current challenges and future developments Paper and presentation due 11/17/2025	Flexible submission modes; alternative media support		
14	Holiday				

11/24			
15		Submit a one-page summary of	Date: 12/01/2025 or
	Capstone presentations	three presentations that interest	12/03/2025
12/1	and	you.	Time: 8:00 AM – 14:00 PM

# **INCLUSIVE & EMPOWERING PRACTICES**

- Multiple means of representation: Readings available in different formats; visual and auditory supports.
- Multiple means of action & expression: Options for essays, creative projects, presentations, blogs.
- Multiple means of engagement: Varied activities, choice in assignments, flexible deadlines where appropriate.

# **Final Note**

This syllabus embodies the principles of Universal Design for Learning, seeking to create an equitable, engaging, and supportive learning community. Please reach out with questions or requests for further accommodations.