

LA 7201 | **Research Methods**

Brendan Harmon

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Fall 2023

Tuesday & Thursday

1:30–2:50pm

Design 308

Course Description

This course is an introduction to research methods for landscape architects. In this course you will study design theories, study a wide range of creative and scholarly research methods, learn fundamental research skills, and develop your own research proposal. There will be guest lectures and a series of workshops introducing techniques such as AI image generation and topic modeling. Assignments include keeping a research notebook, leading and participating in discussions, writing a research proposal.

Topics

Research-Creation • Participatory Design • Speculative Design • Design Fiction • Afrofuturism • Chthulucene • Thing Theory • Object Oriented Ontology • Computational Design • Digital Fabrication • Biofabrication • Autonomous Construction • Data Science • Open Science • Spatial Science • Cartography • Remote Sensing • Cloudism • Artificial Intelligence • Neural Radiance Fields • Soundscapes • Computational Ecology • Fieldwork • Heritage Conservation • Archives • Aesthetics

Assignments

Research Notebook Keep a research notebook, updated weekly, with ideas, inspirations, discussions, notes, case studies, and sources. Record your thought process. Draw as well as write!

Discussions Actively participate in weekly discussions on research methods. Moderate one of the discussions.

Research Proposal Develop a research proposal over the course of the semester. Identify an interesting topic, formulate research questions, conduct a literature review, propose a methodology, and write a proposal.

Grading

Notebook 25%

Discussions 25%

Proposal 40%

Software

Zotero | <https://www.zotero.org/>

Overleaf | <https://www.overleaf.com/>

Books

Hurkxkens, Ilmar., Fujan. Fahmi, and Ammar Mirjan. *Robotic Landscapes: Designing the Unfinished*. Park Books, 2022.

Harman, Graham. *Object-Oriented Ontology: A New Theory of Everything*. Pelican Books. Penguin Books Limited, 2018.

Haraway, Donna J. *Staying with the Trouble: Making Kin in the Chthulucene*. Duke University Press, 2016.

Dunne, Anthony, and Finao Raby. *Speculative Everything: Design, Fiction, and Social Dreaming*. MIT Press, 2013.

Carpo, Mario. *The Alphabet and the Algorithm*. 169. Cambridge, MA: MIT Press, 2011.

Bennett, Jane. *Vibrant Matter: A Political Ecology of Things*. Duke University Press, 2010.

Papers

Fernberg, Phillip, and Brent Chamberlain. "Artificial Intelligence in Landscape Architecture: A Literature Review." *Landscape Journal: design, planning, and management of the land* 42, no. 1 (2023): 13–35.

Fernberg, Phillip, Benjamin H. George, and Brent Chamberlain. "Producing 2D Asset Libraries with AI-powered Image Generators." *Journal of Digital Landscape Architecture* 8 (2023): 186–194. <https://doi.org/10.14627/537740020>.

Li, Marika, and Nadia Amoroso. "An Early Look at Applications for Artificial Intelligence Visualization Software in Landscape Architecture." *Journal of Digital Landscape Architecture* 8 (2023): 543–553. <https://doi.org/10.14627/537740057>.

- Fernberg, Phillip, Paola Sturla, and Brent Chamberlain. "Pursuing an AI Ontology for Landscape Architecture." *Journal of Digital Landscape Architecture* 6 (2021): 452–460. <https://doi.org/10.14627/537705040>.
- Geffel, Michael. "Landscape Design through Maintenance: Field Case Studies in Parametric Mowing." *Landscape Journal* 39, no. 2 (2021): 1–16. <https://doi.org/10.3368/wplj.39.2.1>.
- Girot, Christophe. "Cloudism." Ed. by Ellen Braae and Henriette Steiner. *Routledge Research Companion to Landscape Architecture* (2019). <https://doi.org/10.4324/9781315613116>.
- Mitterberger, Daniela, and Tiziano Derme. "Soil 3D Printing." *ACADIA - Ubiquity and Autonomy: Proceedings of the 39th Annual Conference of the Association for Computer Aided Design in Architecture* (2019): 586–595. <https://doi.org/https://doi.org/10.52842/conf.acadia.2019.586>.
- Urech, Philipp R.W. "Point-Cloud Modeling: Exploring a Site-Specific Approach for Landscape Design." *Journal of Digital Landscape Architecture* 4 (2019): 290–297. <https://doi.org/10.14627/537663031>.

Policies

Time Commitment Expectations LSU's general policy states that for each credit hour, you (the student) should plan to spend at least two hours working on course related activities outside of class. Since this course is for three credit hours, you should expect to spend a minimum of six hours outside of class each week working on assignments for this course. For more information see: <http://catalog.lsu.edu/content.php?catoid=12&navoid=822>.

LSU student code of conduct The LSU student code of conduct explains student rights, excused absences, and what is expected of student behavior. Students are expected to understand this code: <http://students.lsu.edu/saa/students/code>.

Disability Code The University is committed to making reasonable efforts to assist individuals with disabilities in their efforts to avail themselves of services and programs offered by the University. To this end, Louisiana State University will provide reasonable accommodations for persons with documented qualifying disabilities. If you have a disability and feel you need accommodations in this course, you must present a letter to me from Disability Services in 115 Johnston Hall, indicating the existence of a disability and the suggested accommodations.

Academic Integrity According to section 10.1 of the LSU Code of Student Conduct, "A student may be charged with Academic Misconduct" for a variety of offenses, including the

following: unauthorized copying, collusion, or collaboration; “falsifying” data or citations; “assisting someone in the commission or attempted commission of an offense”; and plagiarism, which is defined in section 10.1.H as a “lack of appropriate citation, or the unacknowledged inclusion of someone else’s words, structure, ideas, or data; failure to identify a source, or the submission of essentially the same work for two assignments without permission of the instructor(s).”

Plagiarism and Citation Method Plagiarism is the “lack of appropriate citation, or the unacknowledged inclusion of someone else’s words, structure, ideas, or data; failure to identify a source, or the submission of essentially the same work for two assignments without permission of the instructor(s)” (Sec. 10.1.H of the LSU Code of Student Conduct). As a student at LSU, it is your responsibility to refrain from plagiarizing the academic property of another and to utilize appropriate citation method for all coursework. In this class, it is recommended that you use Chicago Style author-date citations. Ignorance of the citation method is not an excuse for academic misconduct.

Expectations As an accredited Landscape Architecture program LSU’s Robert Reich School of Landscape Architecture (RRSLA) must meet the accreditation requirements as stated by the Landscape Architectural Accreditation Board (LAAB) to ensure RRSLA is meeting the expectations of the field. The LAAB requires programs to provide digital copies of student work as part of this process. Students in this course will be expected to comply with the following requirements as 5% of their course grade: (1) Students must provide a course portfolio with work samples specified by the instructor before the end of the grading period. (2) Each student’s course portfolio must be saved as a single, high resolution PDF file with multiple pages. (3) Files must follow the naming convention established by the school: department-coursenumber-semester-year-username.pdf. Example: LA7201-F2023-baharmon.pdf.