

code LA 408/508

instructors Ignacio Lopez Buson Mary Polites

> *location* Eugene, OR

uo credits

6.0

time M,T,W,Th, 9am - 3pm

dates June 25th - July 31st

course description

I - NDVI Drone Composite Image, Overlook Field School 2023, Ignacio Lopez Buson 2- Urban Farm Visioning Project, 2022 https://www.uoregon.edu/sites/default/files/2022-09/20220623_ uo-urban-farm-vision_final.pdf

Fuller Initiative for Productive Landscapes (FIPL) 2024 FULLER STUDIO: RECLAMATION



The Fuller Initiative for Productive Landscapes (FIPL) is now accepting applications for the 2024 Fuller Studio: Reclamation, an interdisciplinary studio for landscape and architecture students in Eugene during the 2024 summer term (June 25-July 31). This new Summer experiential learning course will be led by architecture and landscape architecture faculty, Mary Polites and Ignacio Lopez Buson, and will focus on the planning and design of the new Urban Farm Riverside site as a future food-production, research, and educational hub for the UO Campus.

Students will work with the instructors following a global-to-local methodology that will cover the entire site design process, from urban analysis and master planning to fabrication and visualization. Ignacio, Landscape Architecture Assistant Professor, will lead design and technology modules related to GIS, drone surveying, urban-environmental analysis, and master planning. Mary, Arch Assistant Professor, will teach design-and-make and digital fabrication modules to experiment with nature-informed architecture students will work together to learn the nuances of both fields and understand the power of interdisciplinary collaboration. Besides the main learning modules, this intense 5-week studio will include stakeholder meetings, design charrettes, site visits, and guest lectures, culminating in a final presentation/exhibition open to the entire UO community.

To apply, please email resume, a short statement of intent (300 words max), and work samples demonstrating relevant interests, skills and experience to ilopezbu@uoregon.edu. This opportunity is open to all (grad and undergrad) landscape architecture and architecture students, provided they are UO-enrolled in the summer 2024 term.

pre-requisites	This course is limited to a maximum of 12 students and qualifies as a 6-credit
	studio course. Landscape Architecture students need to have finished their
	BLA439 or MLA610 studios before enrolling. This will count as a 4/589 non-
	construction studio.

context This studio is supported by the Fuller Initiate for Productive Landscape (FIPL) to develop the Urban Farm Visioning Project articulated by the UO College of Design in 2022. This document provides "an outline of the vision, strategies, and required resources to expand UO's urban farming educational and community impact while showcasing a uniquely Oregon-style exemplar of worldclass research in an ecologically responsive and productive landscape."(2) This course is an initiative led by the Department of Landscape Architecture to involve students in the design and development of the Urban Farm expansion.

- **course objectives** In addition to aligning with the objectives of the Urban Farm Visioning Project, this studio will teach the students to:
 - Understand the principles of environmental analysis in urban settings
 - Learn drone technologies, including surveying and point cloud modeling
 - Gain proficiency in digital fabrication techniques, including 3d printing, laser cutting and CNC milling.
 - · Fabricate and build nature-based prototypes to be installed onsite
 - Develop skills in interdisciplinary collaboration between architecture and landscape architecture.
 - Gain practical experience through stakeholder meetings, design charettes, and site visits.

instructional methodology The course will blend lectures, workshops, site visits, and design charrettes to provide a rich learning experience. Guest lectures by experts in environmental science, agriculture, and computational design will offer diverse perspectives related to the course goals. Studio sessions will focus on iterative design processes, encouraging experimentation and critical feedback. The course will balance computer-driven modules (GIS, computational design, 3d modeling) with on-field hands-on activities (drones, prototype fabrication, design installation). Throughout, students will engage in collaborative exercises to foster teamwork and interdisciplinary dialogue.

recommended software The use of digital design tools will be a critical part of this course. In addition to drone training for site surveying, students will learn Agisoft Metashape to process the captured data and develop 3D models of the territory. These models will be exported to McNeel Rhinoceros for further editing, analysis and visualization with the help of Grasshopper. The Adobe Suite will be used for additional diagrams, collages and layouts for the presentations and final boards.

- Rhino 7.0 or 8.0 (Free 90-day trial) https://www.rhino3d.com/
- Agisoft Metashape Standard Edition (Free 30-day trial)
 https://www.agisoft.com/downloads/installer/
- Adobe Suite Photoshop, Illustrator, InDesign (Subscription) https://www.adobe.com/creativecloud/buy/students.html



ignacio lopez buson

I/3- Ciudad Cuidadora - Data Collection, 2022
 Nicole Konicke, Sofia Chavez, Zhongyang Huang
 4/6 - Eguene's Zink Sink - Final Posters, 2022
 Steven Garcia, Mattie Ecklund, Eva Kahn



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Ignacio Lopez Buson is an architect, landscape architect (OR), and urban designer with international professional experience across Europe, Asia, and the USA. He is principal and co-founder of MAPS (Methods for the Architecture of Patterns and Systems), a research initiative specializing in design innovations for the integration of human and natural systems at all scales. Ignacio is an expert on teaching methodology based on the merging of Geographic Information System (GIS) and computational design. He has led courses and international workshops related to landscape and urbanism, including teaching and guest critic positions at the London-based Architectural Association School of Architecture (AA), the AA Visiting School Program (Shanghai, Shenzhen, Xixinan and Guatemala), Singapore University of Technology and Design (SUTD), Tongji University in Shanghai, and the Boston Architectural College (BAC) in the United States. As Assistant Professor in Climate Change Resilience at UO, Ignacio's work focuses on the multidisciplinary application of emergent technologies and computational tools for climate change solutions in vulnerable regions across the globe.

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I - Terraces physical model - LA 450/550 Advance Media for Landscape Architecture, 2021

- 2- Onsite surveying kit MAPS, 2017

- Drone photograph Turen Workshop, 2017
 UAV Orthomosaic of Xixinan Village MAPS, 2017
 Heritage Building Analysis in Xixinan Village MAPS, 2017
- 6- Water and Drainage Analysis in Xixinan Village MAPS, 2017
 7- Photogrammetry triangulated model Turen Workshop, 2017
- 8- Photogrammetry textured model Turen Workshop, 2017
- 9- Environmental performance analysis of landform proposal -LA439 'Caminos del Agua' Studio, 2023





I-4 - Living Systems, Matrix Typology, CFAR Exhibition, MAPS 2022

5-7 - Subtractive Additive, Dawnielle Castledine, 20248 - Herringbone Discrete Housing, Karianna Muller, 2024

13 - Poikilohydric Living Walls, Iaac, Marcos Cruz

10-11 - Compressed Earth Blocks (Ceb), Omar Rabie, 2012 12 - Common-Action Wall, Designcoding, 2017

9 - Scaffold Studio, Morgan Law, 2024

14 - Earthen Wall, Hatem Hatem

mary polites

Fuller Initiative for Productive Landscapes (FIPL)
2024 FULLER STUDIO: RECLAMATION

Mary Polites is a designer, educator, and researcher focusing on the integration of architectural design and ecological systems through computational design. She has extensive professional experience in international architecture and landscape architecture offices, managing projects from concept design to construction. She is the principal and co-founder of MAPS (Methods for the Architecture of Patterns and Systems), a teaching and research initiative specialized in developing innovative design solutions for the integration of human-natural systems at all scales. Mary has taught at Washington State University under the Weller Teaching and Research Fellowship, Tongji University at the Design and Innovation College in Shanghai, the Boston Architectural College in Massachusetts, and the Academy of Art in San Francisco. She has led international workshops related to computational tools and environmental design for Turenscape Academy in Huangshan, and for the AA Visiting School Program in Xixinan, Shanghai, Shenzhen, and Guatemala. In 2021 she was an artist in residence for the Center for Art Research (CFAR) Project Incubator, a fellowship at the Knight Campus at the University of Oregon, where she explored the potential of digitally fabricated adaptive infrastructures to support the growth of natural systems within the context of architecture, indoor spaces, and health.





























