



SYLLABUS

BARCELONA URBAN DESIGN STUDIO ARCH 4/584
Instructor Philip Speranza, Associate Professor
Instruction in English with Spanish and Catalan terms and content
6.0 Credits
120 Contact Hours
120+ total hours of student engagement in all course activities

Barcelona, Catalunya, Spain

COURSE DESCRIPTION

Fine-Grained Urbanism + Phenomena | Data-driven Design

This intermediate architectural design studio engages the design of a building, street, plaza and other urban space from the human-scale for the betterment of urban health. The studio will be integrated with the seminar, media and advanced technology courses and provide an opportunity for students to use urban theory, data and media to inform data driven smart city design. Innovative fine-grained data analysis will inform construction with specific opportunities given to innovative wood construction techniques between Spain and the USA. Collaborators will include City of Barcelona, local architects, construction industry from Spain and the USA.

COURSE OBJECTIVES

The course will teach students to identify urban problems. They will be research, experience and observe these problem in-situ and remotely. Students will learn skills and methods to design space at the scale of the human space and the scale of the larger city. Design will be done in an iterative approach drive by computational research techniques.

Student Outcomes. Students who successfully complete this course will:

- Urban Health, Context and Place Identity
- Organizational Systems
- Material Performance Research, Mass Timber Construction
- Documentation and Analysis
- Identification of External Conditions and Contextual Attachment using Media
- Synthesis and Abstraction of Systems
- Digital Parametric Design

INSTRUCTIONAL METHODOLOGY

Each student is important. In class course time will be spent with class discussion, case studies assignments, group work, pinups and desk crits. Desk crits will be more common at the end of the term. The studio will operate in the research driven studio approaches.

Urban Systems Analysis Tools

Use and development of existing tools from UO courses

Digital and or analog use of tools, group work

Infographics for strong visual communication of purpose and tool application

METHOD OF EVALUATION (GRADING)

Assessment: Portfolio Development + Quantitative Grading

Urban Design from the Fine-grained Urbanism – Research and Identify urban design problems

Fine-Grained Urbanism + Phenomena | Data-driven Design

Part 1, Orientation and Problems/Topics (Weeks 1-4) 30%

- + City of Barcelona, Social Problems and Topics
- + District Redevelopment: Marina del Prat Vermell with City Planners
- + Mass-Timber Innovation: visit to Sebastia SOLID CLT factory Rialp
- + Fine-grained Urbanism Methods
- + Environmental Design, Arabic influence of Natural Phenomena as God in Granada + Cordoba
- + Phenomena-based Design: RCR La Vila 8-day, Philosophy, Body & Photography, Installation
- + Analysis and Methods Summary

Part 2, Design Project,

Analysis and Master Planning Design (Weeks 5-6) 25%

- + Project Definition: Paseo, Plaza and Building
- + Site proper Analysis: Social mapping and Sensors
- + Master Planning

Design Development (Weeks 7-8) 30%

- + Schematic Design
- + Design Development
- + Presentation

Revisions and Reflections (Weeks 9-10) 15%

- + Retreat: Vall de Nuria, reflection of review and phenomena exercises
- + Revisions from Review and Dissemination

Note: Schedule may be adjusted by some number of days

Similar methods for UO Arch Studios set in [Portland](#) +, [Detroit](#), [Eugene](#), [Springfield](#) and [Madrid](#).



COURSE READINGS

Speranza, P. (2018) "[A human-scaled GIS: Measuring and visualizing social interaction in Barcelona's Superilles](#)" *Journal of Urbanism: International Research on Placemaking and Urban Sustainability*"

Speranza, P (2016) "[Urban Ecological Interaction: Air, Water, Light and New Transit at the Human Scale of Barcelona's Superilles](#)" Proceedings of ICAUDT 18th **International Conference on Advanced Urban Designing and Transportation** 2016, December 12-13, 2016, Barcelona: Spain.

Speranza, P (2016) "[Social Interaction and Cohesion Tool: Integrating Socio-Computational Design in Urban Ecology for Barcelona's Superilles](#)," Session: Urban Knowledge in Architectural Education moderated by Jeff Hou and Joseph Heathcott, *Proceedings of Association of Collegiate Schools of Architecture Annual Meeting 2016*, ACSA, Seattle, Washington.

Speranza, P. (2015) "Time as a Medium, The Early Work of Enric Miralles," *Architecture Design (AD)*, *Architecture Timed*, edited by Karen Franck, London: Wiley.

Speranza, P. and Viader M. (2015), "High Resolution Air Quality and Urban Design," *International Journal of Design Sciences and Technology*, Special Issue Europia 2014, EIA-14, Editors: Reza Beheshti and Khaldoun Zreik, Paris: Europia Production, Volume 22, No. 1, 2015. (Previously presented at Europia.14, Sustainable Places: Architecture, City and Information Design Conference 2014, October 1-3, 2014, Nice, France).

Speranza, P. (2014) "Attachment' As Agency In Off-Site and On-Site Indicators of Phenomena in Geospatial Urban Analysis Tools," *Design Agency, Association of Computer-Aided Design in Architecture Conference 2014*, October 20-23, 2014, Los Angeles, California.

Nabian, N., Offenhuber, D., Vanky A., and Ratti, C. (2013) "Data dimension: accessing urban data and making it accessible." *Proceedings of the ICE - Urban Design and Planning* 166, no. 1: 60-75.

Speranza, P. (2012), "Catalan Nation Building and Bottom-Up Placemaking: Placemaking and Barcelona Coastal Redevelopment in the 22@" *International Association for the Study of Traditional Environments*, "The Myth of Tradition," Vol. 242, 2013 Traditional Dwellings and Settlements Working Paper Series.

Speranza, P., Viader, M., Minguillion M., and Querol, X. (ND) "Urban Air Quality in High Resolution: 3D Mapping, Persona Paths and Advanced Sensors in Suspended Particle Measurement in Barcelona and Portland, Oregon" *unpublished*.

Bibliography

Please see: <https://blogs.uoregon.edu/barcelona2018/readings/> [Password: Barcelona]

Accessible Education Statement

(see <https://aec.uoregon.edu/best-practices-faculty> for more information): *The University of Oregon is working to create inclusive learning environments. Please notify me if there are aspects of the instruction or design of this course that result in disability-related barriers to your participation. You are encouraged to contact the Accessible Education Center in 360 Oregon Hall at 541-346-1155 or uoaec@uoregon.edu.*

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Reporting Obligations:

I am a designated reporter. For information about my reporting obligations as an employee, please see [Employee Reporting Obligations](#) on the Office of Investigations and Civil Rights Compliance (OICRC) website. Students experiencing any form of prohibited discrimination or harassment, including sex or gender-based violence, may seek information and resources at safe.uoregon.edu, respect.uoregon.edu, or investigations.uoregon.edu or contact the non-confidential Title IX office/Office of Civil Rights Compliance (541-346-3123), or Dean of Students offices (541-346-3216), or call the 24-7 hotline 541-346-SAFE for help. I am also a mandatory reporter of child abuse. Please find more information at [Mandatory Reporting of Child Abuse and Neglect](#)."