Professor: Nicolai Kruger, AIA
Beginning: October 1st, 2019
   Weeks 1-5 - Tuesday and Thursday, 4:40pm to 6:30pm
   Weeks 6-11 - Tuesday, 4:40pm to 6:30pm

Classroom: Cramer Hall, Room 183

Contact: nicolai@pdx.edu
Office Hours: By appointment only

Purpose:
To equip graduate-level students with a basic knowledge of architecture and environmental design that will enable them to engage design issues and design professionals effectively in the course of development practice.

Components of this course are consistent with some or all of the goals for Assurance of Learning, Master of Real Estate Development:
   LG1: Teamwork and Leadership
   LG2: Critical Thinking
   LG3: Equity and Sustainability
   LG4: Communications

Pre-requisite:
USP 523 Real Estate Development I or instructor’s consent

Required Reading (available through the PSU Bookstore):
   Title: How Buildings Learn
   Author: Stewart Brand, Publisher: Penguin, 1995

   Title: 101 Things I Learned in Architecture School
   Author: Matthew Frederick, Publisher: MIT Press, 2007

   Title: Sustainable Design
   Author: David Bergman, Publisher: Princeton Architectural Press, 2012

Recommended Reading
   Title: Architecture: Form, Space & Order
   Author: Frances Ching, Publisher: Wiley, 2014 (older editions are okay too)

Class Presentations:
When class presentations include PowerPoint and/or handouts, these will be made available on D2L.

Set Reading and Papers:
Reading and writing assignments are given every Tuesday and due the following Tuesday. In some but not all cases, the reading assignment will be necessary to your ability to complete the writing assignment. Reading and writing assignments will be done in your own time; not during scheduled class time. Be critical of what you read: most is useful, some is biased. Be discerning.
Writing assignments must be submitted as a hard copy at the beginning of class on Tuesday. Include the number and title as they appear in each assignment together with your name and the due date. You are graduate students, so concise and grammatical writing is expected. Each paper is to be one page (approx. 500 words). Clear expression of relevant information will be essential to your professional success, and is therefore required in your course papers. Treat each paper as a briefing for an important client whom you do not yet know.

Sketchbook:
Students are required to keep a class sketchbook this term and do at least five full-page sketches per week for credit. You are welcome to use pencil or ink pen. The size should be minimum 5”x8” up to 8”x12” so that it is easy to carry in your bag. You are welcome to use a blank sketchbook you already own otherwise, please buy one that is not too precious. The purpose of the sketchbook is to strengthen your drawing and observational skills. Use this opportunity to look closely and record the built environment. Please only draw from observation. Make sure you have your sketchbook available at each class as we may go on a “sketchcrawl,” weather permitting. These will be checked during class every Tuesday. Note that you do not have to be artistic to satisfy this requirement. The sketchbooks will be graded on completion.

<table>
<thead>
<tr>
<th>Grades</th>
<th>Percentage of Grade</th>
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<tr>
<td>Eight weekly Writing Assignments</td>
<td>60</td>
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<tr>
<td>Podium Project (due at mid-term)</td>
<td>15</td>
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<tr>
<td>Attendance and completion of Sketchbook</td>
<td>10</td>
</tr>
<tr>
<td>Final take-home exam</td>
<td>15 = 100%</td>
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Up to 10% will be deducted for each class missed. Documentation of valid reason for a missed class will reduce the deduction. Attendance counts toward your grade, there is no make-up work or extra credit.

CLASS SCHEDULE - FALL 2019

Week 1

Tuesday, October 1st - Buildings, Architecture and Urban Context
There will be a discussion of the reading list and expectations for papers, sketchbook and attendance. Introductions will be followed by a discussion on Buildings, Architecture and Urban Context.

Reading Assignment:
1.) How Buildings Learn, pages 1-51, “How Buildings Evolve with Changing Circumstances”

Writing Assignment #1:
Perspectives on Urban Development - From the presentations and readings, describe: A) What features and events have had the most profound influences how downtown Portland looks and functions today; and B) What priorities should guide urban design and building design in the years ahead?
Thursday, October 3rd: “10 Secrets of Portland’s Success”
Design of the public realm – streets, plazas and other open spaces – is in many respects as important as architecture to the success of urban places. There will be a special guest presentation by Bob Hastings, Agency Architect at TriMet and specialist on Transportation Oriented Development (TODs).

Week 2

Tuesday, October 8th: Site Visit
We will meet at 4:40pm in the lobby of 1000 SW Broadway for a tour with staff from LRS Architects. The firm has been hired to renovate three floors (Basement, Mezzanine and 1st Floor) which are currently either unoccupied or underutilized. This site will be the basis of our Podium Project.

Reading Assignment:

Writing Assignment #2:
Values Reflect by Architecture and the Public Realm - Identify three contrasting buildings in Portland and A) describe what values are reflected in the architecture and public realm surrounding each; and B) in what respects do they fall short in their contributions to the public realm?

Thursday, October 10th: Architecture Over Time
Introduction of Podium Project followed by a discussion of how and why buildings change over time. Examples reflect a culture’s contemporary values. Space is shaped around differing needs over time. Styles change with technology. Every building owes something to the design of those that preceded it.

Week 3

Tuesday, October 15th: Architect & Design Team
Discussion of architect and design team roles and the anatomy of an architectural practice including: organizational structure; variety of project delivery method; selection process employed prior to the appointment of an architectural team; coordination of consultants and team members; responsibility and obligation; phases of the architect’s work. We will also consider how the developer can get the best work from the design team and how current technology is affecting the architect’s design process.

Reading Assignment:
1.) How Buildings Learn, pages 88-109, “Preservation”
2.) Sustainable Design, pages 100-115, “Materials”

Writing Assignment #3:
How to Get the Best Out of a Design Team - Outline the role played by each member of the design team to ensure that you, as developer, get the best project outcome.
Thursday, October 17th: Community Values and Historic Preservation
When does a building merit preservation? *Pro forma* and budget are important parameters for any development, but there are other design influences to be taken into consideration. Buildings mirror our culture and values. The ‘value’ of a building also connotes its importance to its users, to the community, to historians and others. Quality materials and craftsmanship, confer value – so does noble intent, as exemplified by a cathedral or a state capitol. Be sure to account fully for the values inherent in a site or development. Podium Project briefing: Some design considerations.

Week 4

Tuesday, October 22nd: Programming
A simple description of uses in a building is rarely sufficient. In most cases, intended users must be interviewed to discover how spaces will be used, how much space is needed, what functional adjacencies must be accommodated and what systems will be needed to service those spaces.

Reading Assignment:
1.) *101 Things I Learned in Architecture School*, pages: all

Writing Assignment #4:
Write a summary of the factors that will influence the design of a building on a project site. Include zoning regulations, features of nearby structures, proximity of urban assets and other considerations that should influence the size, use and appearance of a (hypothetical) new building on an (actual) empty lot in downtown Portland.

Thursday, October 24th: Introduction to Drawing
Drawings are essential to the communication of ideas about design of the built environment. Interpreting drawings entails an understanding of scale, and illustrative conventions. Work on Podium Project will proceed in class. This would be a good time to review “Architecture: Form, Space & Order” by Frances Ching.

Week 5

Tuesday, October 29th: Scale and Proportion
The human form is a universal measure of scale in what we build: the size of a room, the height and placement of a window, the width of a door. Yet there are many exceptions, some appropriate, some not. The proportion of architectural elements has a lot to do with how well a building fits its context.

Reading Assignment:

Thursday, October 31st: Sustainability, High-Performance Buildings and Landscapes
Discussion of the basic principles of sustainable design; what are LEED, 2030 Challenge and other certification systems? What is ‘Net Zero Energy’? Introduction to Biophilia and biomimicry. What are some of the ways in which landscape design can influence sustainability? Continue your work on Podium Project in class, these are due at beginning of class, Tuesday, November 6th.
Week 6

Tuesday, November 5th: Submit Podium Projects
Student groups will present their proposals for the 1000 SW Broadway site to members of LRS Architects (the firm doing the actual project on this site). An open discussion will follow.

Reading Assignment:

Writing Assignment #5:
Developing a building for an urban infill site involves very different design considerations than for a suburban greenfield site. Summarize the challenges typically presented by each.

Week 7

Tuesday, November 12th: Materials & Systems
Understand the value of past investments in materials and labor, design and craft. Review of Podium Project results. Discussion of reading assignments.

Reading Assignment:
1.) How Buildings Learn, pages 110-131, “Maintenance”

Writing Assignment #6:
From a financial point of view, what sustainable features would you include in A) a speculative office building, and B) an administration building for a university? Explain the differences.

Week 8

Tuesday, November 19th: Resilience
Presentation: “First-Hand Account of a 9.1 Earthquake and its Aftermath” followed by a discussion on “Resilience” in building design (a new buzzword much like “sustainability” was 20 years ago).

Reading Assignment:
1.) Sustainable Design, pages 28-37, “Site Issues”

Writing Assignment #7:
How can designing for resilience bring added value to a project, a district or a city? Use specific examples in Portland or another city that you’re familiar with.
Week 9

Tuesday, November 26th: From Garden Cities to Edge Cities
The Garden City movement and the birth of suburbs; the phenomenon of development monocultures; divorce from urbanism and social isolation. Social and development experimentation in the new towns movement produced both successes and failures. What has shaped building in mature CBDs, inner neighborhoods? What is the future of edge cities? Anticipating tomorrow’s values among tenants. Discussion of reading assignments.

Reading Assignment:

Writing Assignment #8:
Developing to Own - Outline design priorities for a new office building in a mixed-use district between downtown and a residential district from the perspectives of: A) the developer and long-term owner, B) the occupants and C) the local community. This should draw on your earlier papers as well as addressing scale.

Week 10

Tuesday, December 3rd: Course Round-up
Discussion of course reading assignments, (no new reading assignment given).

Term Paper:
An open-book examination paper will be distributed. Completed papers are to be emailed to nicolai@pdx.edu no later than midnight on Friday, December 6th.

Week 11

Tuesday, December 10th: Exam Results & Feedback
Review in class.

Note: Descriptions of the contents of each class are intended as a general guide of what to expect. There will be changes, especially if opportunities such as an expert visitor or building tour should arise.