1. Introduction
The Urban Architecture Program in Portland focuses on urban architecture and urban sustainability in Portland and other cities in the US and abroad. This is a thesis studio with the general topical focus, and the overall project selected by the instructor: “Generative Design for a new UO University Campus in Portland.” The design studio is normally preceded by a mandatory Fall term thesis preparation research seminar 407/507. In this case the seminar will take place concurrently with the studio in the winter quarter 2011 but includes preparatory exercises in the summer and the fall quarter. The emphasis of the studio is to generate an overall urban campus and to develop a comprehensive urban architectural project within this campus backed by theoretical explorations, creative work, and rigorous research efforts.

2. The Project: New University of Oregon Campus in Portland
The specific place and scale for this studio focuses on the relation of urban design and urban architecture in the particular context of the development of the new Portland Plan in the city of Portland. The post office site is one of the last prominent locations in downtown Portland that asks for a specific public or civic or educational function. It also asks for an outstanding design that can form the end of the North Park Blocks and present another public face and space that is liked by Portland citizens and evokes identity and pride.
With the exploration for a new University of Oregon downtown Portland campus, we explore one potential development for this location that has been recommended by various Portland citizens and prominent city leaders. The new UO campus at the Park Blocks location is intended to be the focal point of the new campus. Existing UO facilities such as the Whitestag Block are anticipated to stay in place and complete the Campus.

3. Generative Design: Seminar Arch 407/507 Winter

Generative Design similar to generative science tries to understand and conceptualize the world and its complex structure as a generative process. Generative Design attempts to formulate limited parameters, principles, and rules that interact with each other to create richness of life and behavior, and endless variation of form, shape and place.

The overall theme is to explore generative processes and their potential application in planning, design and building processes. All 12-16 students will participate in the seminar by investigating particular aspects of generative urban design and responsive urban architecture in different experiments, tests, and simulations of design processes following particular principles, set rules, criteria and parameters.

Generative design explores the design process also as an emergent process at several levels, including but not limited to physical, artistic, and social cultural factors. This also means that communal or community generative processes are of specific interest here. They might be more and more important in solving our world processes in the future.

4. Schedule: Summer 2010

Students will start to develop individual urban design visions for the new Campus. They will prepare sketches and text of 3-5 pages that outlines their visions on urban design ideas for the new Campus (due at the end of summer, beginning of fall).

Fall 2010: Students are engaged in individual aspects of the urban design and the overall program, and they are encouraged to work in groups and formulate generative design ideas. Instructor will meet with thesis students once or twice during the quarter to discuss urban and building design visions, generative urban growth ideas and program.

Winter 2011: Students will spend half of the quarter on exciting new generative urban design concepts and projects. During the second half of the quarter students will focus on their individual design project, and develop rigorous design studies that include urban and site design as well as building design. Supporting building systems for this project include the study of construction systems, tectonic structures and models.

Spring 2011: In the Spring quarter, students will fully develop their design to completion, including detailed sets of drawings, models, and presentation boards. Students will come back to the urban design work and integrate urban design and the architecture project in a coherent fashion demonstrating aspects of the generative design process.

Hajo Neis, Ph.D. Associate Professor, May 2010