

TONGJI UNIVERSITY COLLEGE of ARCHITECTURE and URBAN PLANNING

Spring 2018, Undergraduate Elective Syllabus

Contact Hours: 2/week

Credit: 2

Time: Mondays 17:50-19:45

020217: The Forefront of Digital Design

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01_Introduction

As the continuous development of computer aided design technologies reached to new heights during the past decade, the integration of these technologies and tools have infiltrated on every aspect of profession. From concept design to execution, use of different digital tools, processes and workflows require a deepened knowledge and understanding of computers, programming, hardware and software. Through a series of lectures spanning across the semester, the course will attempt to look the changing role of architects and the process of practicing architecture. Through lectures from young professionals located in Shanghai or abroad, the course will investigate the current status of digital design and how it is transforming the practice.

02_Objective

This course is designed to be a follow-up on course offered in Fall semester titled "Digital Design Methods". Through a number of guest lectures, the aim of the course is to explore, categorize and understand how practitioners approach and actively use digital design technologies in their work. The objective is to develop a base of understanding how computing and digital theory impacts to different levels of practice. Through lectures, we aim to explore different paradigms on digital design as students will experience how the fundamentals of architecture, design and space making converge into digital design and how the traditional understanding of architecture studies has transformed over the years.

03_Goals

Class will have 4 main goals: 1) Learning about parametric thinking and design methodology 2) Learning about new ways of practice in architecture and design 3) Learning about integration of BIM, computation, software and simulation to design process. 4) Learning about various modes of fabrication, crafting and other means of making and its relation with materiality

04_Methodology

The course will run as a lecture and a follow-up QA session. Students are expected to take notes and follow the

progression of the content as the semester advances. The knowledge that has been build up will be tested through midterm and final assignments as well as interim quiz and tests.

05_Requirements

Students are required to come to course and listen carefully about the content of the course and guest lectures. Some out of class time is required for learning the full extend of the lectures as well as in class participation is essential for discussions.

06_Weekly Schedule

To be announced at the beginning of Semester