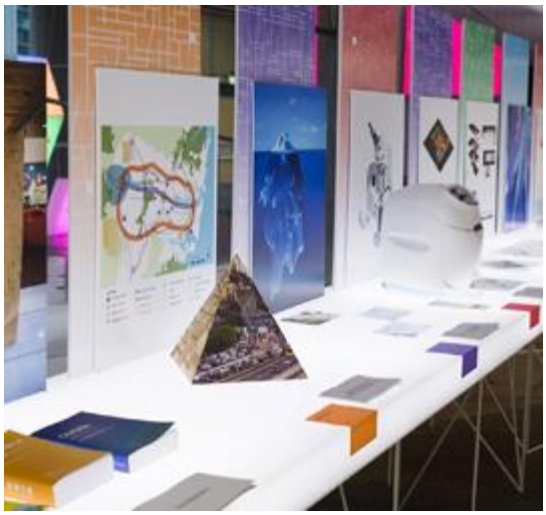
UNSW SYDNEY | Australia's Global University

Built Environment

CODE1210
Computational Design Theory 2



Course Outline – Term 1, 2020

Disclaimer

Information within this document is subject to change. The full and most accurate course outline will be available in Moodle closer to the start of the term in which the course is offered.

1. COURSE STAFF

Course Contact	Nicole Gardner
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2. COURSE DETAILS

Credit Points	6 units of credit (uoc)
Workload	Approx. 150 hours including class contact hours, weekly individual and group online learning activities, readings, class preparation, and assessment activities.
Teaching Times and Location	Find details in timetable http://www.timetable.unsw.edu.au

Description

The Computational Design Theory II course builds on the foundational knowledge of CODE1110 – Computational Design Theory I, that introduced students to computational thinking and methods in the context of the architectural discipline and practice, to investigate historic and contemporary approaches to representing, conceptualising, and designing the built environment in relationship to digital culture and computing technologies. Students will develop and apply advanced critical thinking skills to analyse relationships between digital culture and the built environment and apply conceptual and theoretical ideas to interpret and explain their findings. This course explores and advances the ethical application of digital and computational technologies to inform the student's own design practice.

Aims

This course is conducted via a lecture series (one hour per week); the lecture series has 80% attendance requirement and will have a computer-generated test at the end of the semester. Passing the test with a minimum of 80% right answers is compulsory to pass the course.

The course will expose students to current concepts and design theories through the analysis of digital design skills and technique. It enables students to generate their own critical design positions as well as navigate and expand the digital design media that explores new forms and relationships between cyborg self, digital turn in architecture, and the ubiquitous cities. Furthermore, by contextualizing his or her own 'theoretical mesh', each student is expected to formulate his/her own paradigm and strategy in information/data mapping, re-organization of different scales and forms in a city.

The assessed projects in this course are two folds: reading - discourse formulation - writing, and project analysis as guided by theoretical framings and research + documentation on the technologies employed. Students need to present their writing topics in class first and conduct discussions. Upon the feedbacks from the lecturer, a paper will make up 40% of the assessment. Students will then select the "theoretical mesh" introduced in the lectures, formulate their paradigms and strategies for re-imagination of computational design in the ubiquitous cities. This will constitute 60% of the assessment.

Course Learning Outcomes (CLOs)

At the successful completion of this course, you will be able to:

1. Investigate and explain historic and contemporary approaches to the design of the built environment in relationship to digital culture and computing technologies;
2. Apply advanced critical thinking skills to the analysis and evaluation of computational technologies in and for the design of the built environment;
3. Apply relevant verbal and multimedia communication skills; and
4. Apply conceptual and theoretical ideas to practice the ethical application of digital technologies in and for the design of the built environment.

3. ASSESSMENT

Assessment task	Weight	CLOs Assessed
1. Project – Position – Technology manifesto (Individual)	20%	1, 2, 3
2. Report – The socio-digital life of small urban spaces (Group 15 % / Individual 20%)	35%	2, 3, 4
3. Presentation – Publicity – Technology debates (Group 15% / Individual 20%)	35%	1, 2, 3
4. Test – Online Exam: Moodle Quiz	10%	1, 2

4. COURSE IMPROVEMENT AND FEEDBACK

Feedback from students is an integral part of improving courses and teaching approaches. One of the primary mechanisms of feedback is myExperience, which we strongly urge all students to complete at the end of term. Course convenors use the feedback to make ongoing improvements to the course. This is communicated in Moodle in the myFeedback Matters page.