UNSW SYDNEY | Australia's Global University

Built Environment

BEIL0014
Digital Making

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	Christina Ramos
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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

'Digital Making' builds on the advanced knowledge generated and documented within CODE2230 - Human-Machine Interaction, CODE2250 - Advanced Digital Fabrication and CODE2270 - Design Information Management, and represent the completion of the 'Applied Level' stream of the Computational Design degree. The course introduces and critiques design by making through digital fabrication technologies and advanced prototyping. Students will be provided with the conceptual understanding, technical skills and critical thinking methods required to apply and review skills in digital making as a system that connects design to fabrication. The students performance will be evaluated with respect to their progressive work developed in preparation for or during the studio activities. Students will employ a range of verbal and multimedia communication skills to represent and deliver their design decisions and prototyping results with professionalism, clarity and purpose.

Aims

The aim of the course is to provide students with knowledge in digital fabrication techniques on an advanced level to enable them to design and fabricate components in 1:1 scale using machines such as CNC mills and digital cutters.

The course also introduces the students to the use of Augmented Reality as visual assembling guidance using the HoloLens to plan the construction stages and actually build the Centaur Pod Pavilion (Arup / UNSW CoDe Research).

Course Learning Outcomes (CLOs)

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

1. Analyse and evaluate case studies and developments in digital fabrication technologies.
2. Demonstrate knowledge of digital making as a system that connects design to fabrication.
3. Apply digital fabrication skills for their own design projects and professional work.
4. Create and construct digitally fabricated working prototypes.

3. ASSESSMENT

Assessment task	Weight	CLOs Assessed
1. Assessment 1: Fabrication and Assembly Technologies Digital	20%	1, 2
2. Assessment 2: Fabrication of Components	50%	3, 4
3. Assessment 3: Assembly of the Pavilion	30%	1, 2, 3, 4

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.