



**UNSW**  
SYDNEY

Australia's  
Global  
University

# Built Environment

BENV2001

Emerging Digital Technologies



Course Outline – Term 3, 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

<b>Course Contact</b>	Yannis Zavoletas
<b>Email</b>	<a href="mailto:y.zavoletas@unsw.edu.au">y.zavoletas@unsw.edu.au</a>

## 2. COURSE DETAILS

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

### Description

Students in this course will gain knowledge in the technical and operational principles of emerging digital technologies and identify applications of emerging digital technologies in and for the design of the built environment. This course will give students the opportunity to familiarise themselves with two emerging digital technologies that can be chosen out of a pool of four different technologies.

At present, the course offers the following four skills trajectories: ADVANCED DIGITAL FABRICATION; ROBOTICS; GAMING; AR&VR. Students need to choose TWO out of the four prior to their enrolment. Possible combinations are:

- ADVANCED DIGITAL FABRICATION / ROBOTICS (Strong fabrication focus)
- GAMING / AR&VR (Strong synthetic environments focus)
- ADVANCED DIGITAL FABRICATION / AR&VR (Mixed focus leaning to Processes in Construction)
- GAMING / ROBOTICS (Mixed focus leaning to Human / Machine Interaction)

At the end of the course students can demonstrate skills in operating emerging digital technologies and apply emerging digital technologies in their own design projects and professional work.

### Aims

Aim 1: The aim of the course is to provide students with a foundation knowledge (operation, WH&S, programming) of emerging digital technologies in either Robotic fabrication, advanced digital fabrication, AR /VR, and gaming.

Aim 2: The course also aims to enable students to apply emerging digital technologies in their own design projects and professional work.

## Course Learning Outcomes (CLOs)

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

1. Comprehend the technical and operational principles of emerging digital technologies.
2. Demonstrate skills in operating emerging digital technologies.
3. Identify applications of emerging digital technologies in and for the design of the built environment.
4. Apply emerging digital technologies in their own design projects and professional work.

### 3. ASSESSMENT

Assessment task	Weight	CLOs Assessed
1. Project 1 (a) Emerging Digital Technology	30%	1, 2, 4
2. Project 1 (b) Emerging Digital Technology	20%	3, 4
3. Project 2 (a) Emerging Digital Technology	30%	1, 2, 4
4. Project 2 (b) Emerging Digital Technology	20%	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.