



UNSW
SYDNEY

Australia's
Global
University

Built Environment

BENV7501

Urban Data Visualisation



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

Course Contact	Sisi Zlatanova
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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

It has been said that a picture (or a map) is worth a thousand words. Visual statements can play a critical role in shaping opinions, supporting planning, and helping policy and decision-making in cities. Contemporary cities have grown extraordinarily complex and can be described and analysed through an increasing variety of social, economic and environmental data in different dimensions. New 3D tools have been created to cope with the large availability of urban data and models, make sense of it and report it to varied audiences in a meaningful and appealing way. 3D innovative interactive and digital maps are changing city design and planning by providing more elaborated analysis and simulations, and convincing impressions. Therefore, building capacity on what kind of data structures, system architectures and software tools are needed is an asset for anybody working in the field of urban planning and management. Visualisation is a critical component of modelling, analysing and understanding the built environment and this course will arm the students with the theory and techniques to harness the power of 3D visualisation.

Aims

This course is designed to provide students with a critical overview of current theory and technologies for 3D urban visualisation and technical understanding to develop visualisation products to for specific purposes.

Course Learning Outcomes (CLOs)

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

1. Critically assess the process and role of urban data visualisation.
2. Demonstrate a theoretical and practical knowledge of a range of urban data visualisation applications and their capabilities.
3. Synthesise visualisation, observational and analytical processes by applying critical judgements appropriate to the visualisation aims for specific projects and scenarios.

3. ASSESSMENT

Assessment task	Weight	CLOs Assessed
1. Assignment - 3D modelling and visualization	20%	1, 2
2. Assignment - Web-based visualization	30%	1, 2
3. Assignment - Game engine project	50%	3

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.