



**UNSW**  
SYDNEY

Australia's  
Global  
University

# Built Environment

BLDG4024

Business Intelligence and Data Analytics



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

<b>Course Contact</b>	Dr Benson Lim
<b>Email</b>	<a href="mailto:b.lim@unsw.edu.au">b.lim@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

This course is an introduction to research, data analytics and business intelligence (BI), and is of high relevance to the construction and property industries considering the amount of data generated by organisations and their projects. For example, project health and safety data, marketing strategies of companies, extreme weather conditions, building energy consumption, contractors' bidding behaviours, organisational performance and productivity data, employee absenteeism rate, rental and sales trends, etc. The ability to store, retrieve and analyse relevant data is often touted to be one of the key factors driving company competitiveness and success. As such, the aims of this course are to introduce students to the fundamental of business research and information management and develop students' competence to designing appropriate instruments, gathering and filtering out information and thereafter delivering the gems of knowledge to the right decision makers for strategy formulation and actions.

## Aims

The main aim of this course is to develop students' competence to designing appropriate instruments, gathering and filtering out information and thereafter delivering the gems of knowledge to the right decision makers for strategy formulation and actions. Under this aim, the specific objectives are set out below to provide you with comprehensive understanding on:

1. The definitions of and rationales for business intelligence and data analytics;
2. The business research process;
3. The data structure and requirement, and its preparation process;
4. The types of data collection instruments and analytic procedures and functions; and
5. The appropriate formats of data presentation.

## Course Learning Outcomes (CLOs)

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

1. Describe the linkage between data, information and insight;
2. Set up a business research plan;
3. Explain the importance of business intelligence and data analytics to organisational strategies and performance in the construction and property sector;
4. Appreciate different types of data;
5. Prepare, process and test data;
6. Appreciate basic formulas and functions in Excel for managing database and preparing business reports;
7. Design and develop appropriate data collection instruments for different purposes; and
8. Execute a range of basic descriptive and predictive analyses.

## 3. ASSESSMENT

Assessment task	Weight	CLOs Assessed
1. Test – Online Quizzes	10%	1, 2, 3, 4, 5, 6, 7
2. Assignment – Individual Assignment	50%	4, 5, 6
3. Assignment – Group Assignment (with self and peer evaluation)	40%	1, 2, 3, 4, 5, 6, 7, 8

## 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.