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# **BLDG 3004 CONSTRUCTION INFORMATION SYSTEMS**

#### Credit Points 10

Legacy Code 200503

Coordinator Sameera Wijesiri Pathirana (https://

directory.westernsydney.edu.au/search/name/Sameera Wijesiri Pathirana/)

**Description** This unit is designed to provide skills and knowledge for information management technology and practice as it relates to the building industry. The unit gives and overview of information management, data collection and storage, information classification systems, communications, specialist computer applications and artificial intelligence.

School Eng, Design & Built Env

Discipline Building Construction Management

Student Contribution Band HECS Band 2 10cp

Check your HECS Band contribution amount via the Fees (https:// www.westernsydney.edu.au/currentstudents/current\_students/fees/) page.

Level Undergraduate Level 3 subject

#### Assumed Knowledge

Students must be familiar with spreadsheet and database software. Students should also have a basic understanding of contract administration.

## Learning Outcomes

On successful completion of this subject, students should be able to:

- 1. Discuss information management requirements in general and specifically as they relate to the building industry.
- 2. Explain the essential components of an integrated information management system for all stages of building procurement.
- 3. Discuss technology advances in hardware and software in information management including data collection, storage, retrieval, analysis and communication.
- Demonstrate the ability to effectively use spreadsheet and database management software for complex building related applications.
- 5. Discuss specialist computer applications for building including expert systems.
- 6. Develop computer applications using spreadsheet and database software, for project management processes

# Subject Content

- introduction to information management
- information characteristics
- information systems
- information management in The Building industry
- Classification systems and integration between different Building
- procurement phases
- data collection from construction site
- data storage systems
- data analysis and Reporting in construction
- advanced Technology Hardware for construction industry
- advanced Technology software used in construction industry

- communication Technology used in construction industry
- expert systems used in construction industry such as NATHERS, FIRECAL, BCAIDER
- future directions in Building information systems

## Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

ltem	Length	Percent	Threshold	Individual/ Group Task
Essay	Group; 2000 words	20	Ν	Both (Individual & Group)
Applied Project	Each students collect data contract admin data from a construction site and store and analyse data using MS Excel; 50% mark is allocated for their own project and 50% for group effort.	25	Ν	Group
Quiz	1 hour	20	Ν	Individual
Applied Project	Group of two; each students are required to enter 100 subcontracto details and mark is distributed 50:50 for group and individual work)	15 r	Ν	Group
Quiz	1 hour	20	Ν	Individual

#### Prescribed Texts

- Suitable computer equipment and software (Excel, Access, Buildsoft, MS Project, and Archi CAD). Software is available at the Blacktown Campus computer labs. Students can purchase their own software and practice outside the class time.
- Lecture and Tutorial Notes are updated every year and posted on the elearning site.
- · A Book of reading will be provided via vUWS;

**Teaching Periods** 

# Summer A

### Parramatta - Victoria Rd

#### Day

**Subject Contact** Sameera Wijesiri Pathirana (https:// directory.westernsydney.edu.au/search/name/Sameera Wijesiri Pathirana/)

View timetable (https://classregistration.westernsydney.edu.au/even/ timetable/?subject\_code=BLDG3004\_22-SUA\_PS\_D#subjects)

# Autumn

### Penrith (Kingswood)

### Day

**Subject Contact** Sameera Wijesiri Pathirana (https:// directory.westernsydney.edu.au/search/name/Sameera Wijesiri Pathirana/)

View timetable (https://classregistration.westernsydney.edu.au/even/ timetable/?subject\_code=BLDG3004\_22-AUT\_KW\_D#subjects)

## Parramatta - Victoria Rd

#### Day

**Subject Contact** Sameera Wijesiri Pathirana (https:// directory.westernsydney.edu.au/search/name/Sameera Wijesiri Pathirana/)

View timetable (https://classregistration.westernsydney.edu.au/even/ timetable/?subject\_code=BLDG3004\_22-AUT\_PS\_D#subjects)