Subject Description Form

Subject Code	BSE562
Subject Title	Technology Integration for Facility Management
Credit Value	3
Level	5
Pre-requisite/ Co-requisite/ Exclusion	Must have an understanding of the role and function of facility management as a profession and in the industry. Basic use of computer, use of internet to search and download information.
Objectives	Contemporary Facility Management demands the effective use of all business resources to achieve beneficial outcomes for key stakeholders. Technology is a key tool to provide competitive advantage. The scope of existing IT technologies (CAFM, CMMS, IWMS, GIS, etc) and new and emerging tools in the field of real estate and facility management is vast. Facility Managers need to understand not only the nature and role of appropriate technologies but when and how to apply them so as to realize the greatest benefits to the organisation. They need to establish priorities and be able to understand the potential impact of each technology adoption on their functions and the workplace. This subject is designed to assist the facility manager in understanding these traditional and emerging technologies, their impacts, and when and how to apply them.
Intended Learning Outcomes	Upon completion of the subject, students will be able to: a. Have a clear understanding of the role of technology, categories of technology and their applications in supporting Facility Management delivery; b. Have a clear understanding of the current trends and drivers for change arising from technological developments; c. Distinguish the different technologies and technology tools available to the Facility Manager; d. Evaluate the complexities of managing the implementation of technology and assess how it affects not just technical users, but users of the whole organisation; e. Apply a methodology for assessing and evaluating the current technology state of an organisation or facility and developing an appropriate technology strategy.
Subject Synopsis/ Indicative Syllabus	The subject is composed of three sections (including a full day workshop): Section 1 – **Technology Trends and their context for Facility Managers** • The drivers, trends and implications for Facility Managers • Advances in technology and the context of different technology types • Technology and innovative workplace

	Section 2 – **Applications and Implementation Issues** Enabling technologies – review of current and emerging tools affecting FM processes and implications • Embedded building technologies – the FM perspective • Enhancing technologies – analysis tools that enhance existing knowledge and improve management capabilities in FM • Organisational evaluation and technology implementation issues Section 3 – **Technology Strategy Development** • Reviewing the FM organisation and provision of facilities and services • Developing a technology strategy for embedded, enabling and enhancing technologies • Presenting a technology-based business case.
Teaching/Learning Methodology	This subject will be taught through a combination of evening lectures, period of intensive block teaching and workshop. The lecture material is provided only as a base for the student's further study/research. Assignments and final examination will be assessed on this basis. Based on lecture material/direction, students will be expected to undertake research into the various parts of the subject. A high level of student involvement/interaction and independent research is mandatory. It is assumed that students will attend all the classes and will participate actively in class discussions. Attendance of the full-day workshop is essential for students taking the subject. • Lectures/case studies/site visits • Seminars and student presentations • Workshops • Independent study • Assignment preparation

Assessment Methods in Alignment with Intended Learning Outcomes

Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)				
		a.	b.	c.	d.	e.
1. Essay Assignment	30%	✓	✓	✓		
2. Workshop	30%			✓	✓	✓
3. Examination	40%	✓	✓	✓	✓	✓

	Total	100%	

i) The essay assignment is designed to assess the students' individual ability in attaining the intended outcomes a), b) & c), as an interim assessment on their individual learning progress.

ii) The interactive workshop (facilitated by experienced professional) is designed to encourage group discussion and exchange of experience via realistic case scenario. It is used to assess students' ability of knowledge application and presentation skills.

iii) The written examination is to assess the overall ability of individual students in attaining the various intended outcomes.

Reading List and References	<u>Indicative reading list and references:</u>

Teicholz, E. Ed. (2013) *Technology for Facility Managers*. John Wiley & Sons, Inc. (ISBN:978-1-118-38283-7)

Teicholz, P. Ed. (2013) *BIM for Facility Managers*. John Wiley & Sons, Inc. (ISBN:978-1-118-38281-3)

Then, D.S.S.& Tan, T.H. (2013). *Facilities Management and the Business of Managing Assets*. Routledge, London & New York. 2013. (ISBN: 978-0-415-27494-4).

McGregor & Then (2001). *Facilities Management and the Business of Space*. Arnold Publishing, London. 1999. Butterworth-Heinemann, (ISBN: 0-340-71964-8).

Property Council of Australia (2001). *Digital Property*. (www.digitalproperty.com.au)

Teicholz, E. & Takehiko, I. (1995). *Facility Management Technology*, Wiley.

The Internet is a very good source for information. Students must be able to use the internet to search for supplementary information as part of the coursework requirements. The following web sites are recommended as useful sources of information in addition to lecture handouts given during lectures:

http://www.slideshare.net/AndyFuhrman/technology-tools-for-facility-managers-integrating-building-information-models-and-integrated-workplace-management-systems-for-lifecycle-operations-13564895

http://www.youtube.com/watch?v=5JNzAmWG2Fs (The Future of Work)