Subject Description Form

Subject Code	COMP3122
Subject Title	Information Systems Development
Credit Value	3
Level	3
Pre-requisite / Co-requisite / Exclusion	**Pre-requisite**: COMP2411
Objectives	The objectives of this subject are to: • provide orientation and understanding of the information systems development and opportunities for the enterprise; • understand and apply the methodologies of analyzing enterprise business, information architecture and information systems integration; and • understand and apply project management theory and principle.
Intended Learning Outcomes	Upon completion of the subject, students will be able to: *Professional/academic knowledge and skills* (a) possess an overview picture of enterprise information system environment; (b) prepare, design, and implement enterprise information systems in organizations; and (c) understand management issues in enterprise information systems project implementation. *Attributes for all-roundedness* (d) improve their critical thinking skills and analytical skills through case studies and group discussion of enterprise information systems development; and (e) enhance their team working skills, technical report writing and presentation skill through enterprise information system implementation projects.

Subject Synopsis/ Indicative Syllabus

Topic
1. Information System Environment Introduction to enterprise information systems, common enterprise resource planning modules, systems architecture of enterprise information systems.
2. Information System Project Planning System requirement, development and management: requirement engineering; scope planning; change control. Activity planning: project scheduling, critical path method; PERT evaluation of uncertainty, critical chain approach, resource allocation, estimation technique. Software project management: risk management, managing people in virtual projects, outsourcing.
3. Information System Project Measuring and Control Cost tracking, effort tracking, effort tracking, schedule tracking, earned value analysis and reporting.
4. Information System Integration Problems and issues in enterprise application integration, common tasks in enterprise application integration, integration approaches, integration technology, XML, web service, service oriented architecture.

Teaching/ Learning Methodology

This subject emphasizes both theoretical and practical aspects of enterprise information systems development. It is intended to provide students with knowledge and practical experience on conducting information systems project development and implementation. Enterprise systems and related exercises will be provided in laboratory and tutorial sessions.

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
Continuous Assessment	**70%**					
1. Assignments, Tests and Projects		✓	✓	✓	✓	✓
Examination	**30%**	✓	✓	✓	✓	
Total	100%					

Student Study Effort Expected	Class contact:	
	▪ Lecture	39 Hrs.
	▪ Tutorial/Lab	0 Hrs.
	Other student study effort:	
	▪ Assignments, Quizzes, Projects, Exam	70 Hrs.
	Total student study effort	119 Hrs.
Reading List and References	**Reference Books:** 1. Fairley, R.E., *Managing and Leading Software Projects*, IEEE Computer Society Press, 2009. 2. Hughes, B. and Cotterell, M. *Software Project Management*, 5th Edition, Mcgraw Hill, 2009. 3. Hohpe, G. and Woolf, B., *Enterprise Integration Patterns: Designing, Building, and Deploying Messaging Solutions*, Addison-Wesley Professional, 2003. 4. Roshen, W., *SOA-Based Enterprise Integration: A Step-by-Step Guide to Services-based Application*, McGraw-Hill Osborne Media, 2010. 5. Kerzner, H., *Project Management: A Systems Approach to Planning, Scheduling and Controlling*, 10th Edition, Wiley, 2009. 6. Dunn, C. L., *Enterprise Information Systems: A Pattern-based Approach*, 3rd Edition, McGraw-Hill, 2005. 7. Summer, M., *Enterprise Resource Planning*, Prentice Hall, 2004.	