WESTERN SYDNEY
UNIVERSITY

The College

SYSTEMS ANALYSIS AND DESIGN

700013

2020

UNIT OUTLINE

Last amended:	October 2020

Disclaimer

Unit name	Systems Analysis and Design
Unit number	700013
Coordinator	Dr Buddhima De Silva
Session	2020.3
Handbook summary	This unit introduces the concepts of systems analysis and design. The study of methodologies and techniques for problem recognition, requirement analysis, process modelling and/or data modelling are essential elements of this unit. The Systems Development Life Cycle model is employed as the prime approach to teach the unit, providing students with the basic skills required for analysis and design of logical solutions to information systems problems. The use of computer aided system engineering tools will be discussed in practical sessions.
Credit point value	10
Prerequisite/s	Students enrolled in 7067 Diploma in Information and Communications Technology Extended, and 7083 Bachelor of Information and Communications Technology Extended (WSTC First Year Program) must pass 700199 Academic Communication 2 (WSTC Prep) or 700208 English for Tertiary Study 2 (WSTC Prep), or 700210 Introduction to Academic Communication 2 (WSTC Prep), and must pass 700201 Computer Studies (WSTC Prep) before enrolling in this unit. Students enrolled in 7138 Diploma in Information and Communications Technology Extended-ICT, 7139 Diploma in Information and Communications Technology Extended, 7140 Diploma in Information and Communications Technology Extended–IS and 7141 Diploma in Information and Communications Technology Extended-HIM must pass 700276 Academic & Professional Communication (WSTC Prep), 700205 Academic Skills for ICT (WSTC Prep) and 700278 Information Technology in Business (WSTC Prep) before enrolling in this unit.
Corequisite/s	N/A
Assumed knowledge	Students should have knowledge of the fundamentals of information systems, computer systems, computer applications and information processing
Unit level	1
Attendance requirements	Students are expected to attend at least 80% of classes. Educational research consistently demonstrates that this attendance level is associated with a high likelihood of achieving a passing grade.
Enrolment restrictions	Only students enrolled at The College can enrol in this unit. Students enrolled in Extended Diplomas must pass 40 credit points from the preparatory units listed in the course structure prior to enrolling in this University level unit.
Learning outcomes	On successful completion of this unit, students should be able to: 1. recognise the key role of a systems analyst and describe the generic roles and responsibilities of users, developers and managers within the context of business information systems

2. recall the fundamental building blocks and architecture of information systems

3. describe and apply the various phases of the System Development Life Cycle, including related documentation and appropriate project management approaches

4. analyse user and system requirements for the purpose of producing abstract models based on real business problems

5. explain the use and application of Computer Aided Software Engineering (CASE) Tool in the creation of systems development artefacts

6. explain the issues around information systems governance, consumer and information security and professional ethics in regard to their impact on information systems design and operation.

Unit content	1. Introduction to systems and information
	2. Concepts of systems analysis and design
	3. The Systems Development Lifecycle (SDLC)
	4. Problem definition, statement and documentation
	5. Introduction to requirements gathering and analysis using business process data and object-oriented modelling
	6. Implementation issues
	7. Human computer interaction
	8. Project Management
	9. Information systems governance, consumer and information security and professional ethics
	10. Systems development documentation
Mode of delivery	This unit consists of two hours of online lectures and two hours of online practical sessions per week. In addition to that, there will be activities on the unit's vUWS website.
Online learning requirements	In addition to attending online classes the students are expected to access vUWS and check their student email account at least twice a week. Access to the unit's vUWS site is only available to students who are enrolled in the unit. Student enrolment can be cancelled for failure to meet financial obligations to the university, eg failure to pay library fines. If access is unavailable, students should contact Student Services to check enrolment.
Essential requirements	**Essential text**
	Scott, R.T., & Rosenblatt, H.J. (2020). Systems analysis and design, (12th ed.). Boston, MA: Course Technology Cengage Learning.
	Further resources
	For a list of additional readings, please see the unit's learning guide.

ASSESSMENT ITEMS AND WEIGHTING

Assessment for this unit will be based on the following components:

Task	Weighting	Learning outcomes assessed	Mandatory task
1. Discussion	10%	1–3, 6	Yes
2. Workshop portfolio (continuous individual assessment) — to be submitted in three parts worth 10% each	30%	3, 4, 5, 6	Yes
3. Quiz x 2 (open book, 90 minutes, individual assessment)	20%	1-4, 6	Yes
4. Report (approximately 2 hours — individual assessment)	40%	1–6	Yes
Total	100%		

For details of assessment due dates, please refer to the Learning Guide for this unit.

All marks will be determined in accordance with The College Assessment Policy.

All assessment tasks are mandatory unless otherwise specified. Should a student fail to attempt/submit the first formal assessment task in a unit, they will be deemed to be at risk and will need to follow an intervention plan in order not to receive a Fail Non-Submission (FNS) grade. However, failure to attempt/submit all other mandatory assessment tasks will result in an immediate FNS grade for the unit.

To pass this unit, students are required to:

- submit/attempt all mandatory assessment tasks
- achieve a mark of at least 40% in the report, and
- achieve a mark of at least 50% overall.