UNIT OUTLINE REPORT

EDITH COWAN UNIVERSITY
FACULTY OF COMPUTING, HEALTH AND SCIENCE
SCHOOL OF COMPUTER AND INFORMATION SCIENCE

UNIT TITLE :   Systems Analysis
UNIT CODE :   CSI1241
CREDIT POINTS :   15
FULL YEAR UNIT :   No
MODE OF DELIVERY :   On-campus
                             Off-campus

DESCRIPTION
Understanding of the components of systems analysis: definition of a system, the role of and context of systems analysis, interfacing with the user; the life cycle of a management information system from the feasibility study through to the post-implementation audit. Applying skills by fact gathering, interviewing, presenting, group working, documenting an existing system; analysis techniques involving use cases, state diagrams, data modelling, data from diagrams, data dictionaries, decision tables, web page, screen and report design.

LEARNING OUTCOMES
On completion of this unit the student should be able to:
1. demonstrate evidence of the knowledge set and skill set required by the systems analyst;
2. describe and store data to assist systems development;
3. specify business processes and business rules;
4. model the flow of computer systems;
5. design the interface of a computer system;
6. produce the specification of a computer system.

UNIT CONTENT
1. Context of systems analysis: Project life cycle, scheduling, time management, project planning, costs and benefits.
2. Skills of the analyst: Interviews, presentations, technical report writing, group working, problem solving, data gathering.
3. Data dictionaries including elementary and composite, file, entity and object definitions.
4. Tools for expressing logic: Structured English, decision tables, decision trees, Nassi-Schneiderman, flowcharts, state diagrams.
5. Modelling techniques: Business rules, normalisation, entity analysis, data flow diagrams, navigation diagrams.
6. System models: Scoping, boundaries, physical and logical models, domain of change, human-machine boundary.
7. Human factors in systems design.
8. Navigation in systems design.

TEACHING AND LEARNING PROCESSES

Lectures, class workshops and project work.

GRADUATE ATTRIBUTES
The following graduate attributes will be developed in this unit
- Ability to communicate
- Ability to work in teams
- Critical appraisal skills

ASSESSMENT
Grading Schema 1

Item	On-Campus Assessment	Value
	Assignment 1	20%
	Assignment 2	30%
	Examination	50%

N.B.: Students are required to achieve at least one half of the available marks in the examination to pass the unit.

TEXTS
Yeates, D. & Wakefield, T. (2004). *Systems analysis and design (2nd ed.).* Harlow: Prentice-Hall.

SIGNIFICANT REFERENCES

DeMarco, T. (1979). *Structured analysis and system specification.* Englewood Cliffs, New Jersey: Prentice-Hall.

Gane, C., & Sarson, T. (1979). *Structured systems analysis: Tools and techniques.* Englewood Cliffs, New Jersey: Prentice-Hall.

Hawryszkiewyez, I. T. (1998). *Introduction to systems analysis and design.* (4th ed.). Sydney: Prentice-Hall.

Hoffer, J. A., George, J. F., & Valacich, J. S. (1996). *Modern systems analysis and design.* Reading, MA: Benjamin/Cummings.

George, J. F., Batra, D., Valacich, J. S., & Hoffer, J. A. (2003). *Object-oriented systems analysis and design.* Upper Saddle River, New Jersey: Pearson.

Page-Jones, M. (1988). *The practical guide to structured systems design.* (2nd ed.). Englewood Cliffs, New Jersey: Prentice-Hall.

Whitten, J. L., Bentley, L. D., & Barlow, V. M. (1994). *Systems analysis and design methods.* (3rd ed.). Burr Ridge, IL: Irwin.

Yourdon, E. N. (1989). *Modern structured analysis.* London: Prentice Hall International.

Academic Misconduct Addendum for Unit Outlines.

"Edith Cowan University regards academic misconduct of any form as unacceptable. Academic misconduct includes, but is not limited to:

- plagiarism;
- unauthorised collaboration;
- cheating in examinations;
- theft of other students' work.

The university defines academic misconduct as follows:

"academic misconduct"	means	conduct in relation to any academic work that is dishonest or unfair.
"cheating"	means	conduct in any assessment that is dishonest.
"plagiarism"	means	to knowingly or unknowingly present as one's own work the ideas or writings of another without appropriate acknowledgment or referencing. This includes, but is not limited to:

- paraphrasing text without acknowledgment of the source;
- paraphrasing text inadequately with acknowledgment of the source;
- copying the text of another student's assignment or other students' assignments; and
- copying of visual representations (cartoons, line drawings, photos, paintings and computer programs).

A staff member, who has reasonable grounds to believe that a student has committed some form of academic misconduct, shall follow the provisions of the *Academic Misconduct Rules (Students)* which are available on the University website, at
http://www.ecu.edu.au/GPPS/governance_services/resources_file/general_misconduct_rules_students(070327).pdf