UNSW Course Outline

ZEIT2105 Systems Analysis and Design - 2024

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General Course Information

Course Code : ZEIT2105
Year : 2024
Term : Semester 2
Teaching Period : Z2
Is a multi-term course? : No
Faculty : UNSW Canberra
Academic Unit : School of Systems and Computing
Delivery Mode : In Person
Delivery Format : Standard
Delivery Location : UNSW Canberra at ADFA
Campus : UNSW Canberra
Study Level : Undergraduate
Units of Credit : 6

Useful Links

Handbook Class Timetable

Course Details & Outcomes

Course Description

This course provides a broad exposure to the IT Management, Information System Design, and Principles. The course teaches students how to use standard artefacts and methodologies to analyse and guide software development and systems projects.

Course Aims

To introduce concepts and techniques for the analysis, design, implementation and management of software and system projects.

Course Learning Outcomes

Course Learning Outcomes
CLO1 : Explain different software development approaches, their strengths and weaknesses
CLO2 : Construct a range of project management artefacts including a work breakdown structure and Gantt chart to accurately describe and track the status of an IT project
CLO3 : Use a range of artefacts to describe system designs, including functional, structural
CLO4 : Use project management techniques
CLO5 : As a team construct artefacts that expresses a design that satisfies business, system, user, and ethical project requirements

Course Learning Outcomes	Assessment Item
CLO1 : Explain different software development approaches, their strengths and weaknesses	• Assignment 2
CLO2 : Construct a range of project management artefacts including a work breakdown structure and Gantt chart to accurately describe and track the status of an IT project	• Assignment 2
CLO3 : Use a range of artefacts to describe system designs, including functional, structural	• Assignment 1 • In-class assessment 2 • Assignment 2
CLO4 : Use project management techniques	• In-class assessment • In-class assessment 2 • Assignment 2
CLO5 : As a team construct artefacts that expresses a design that satisfies business, system, user, and ethical project requirements	• Assignment 2

Learning and Teaching Technologies

Moodle - Learning Management System | Echo 360

Other Professional Outcomes

This course contributes to the following Program Learning Outcomes (PLOs):

PLO5 - On completion of this program, graduates will be able to design, implement, verify,

validate, document, deploy and explain computational solutions as algorithms coded in high-level programming languages, using conventional standards and tools to meet well-described outcomes.

PLO6 - On completion of this program, graduates will be able to apply computational solutions to different verticals in government and industry, by modelling, simulation and integration, following agreed architectures, design standards, patterns, and methodologies, in professional and multidisciplinary collaboration with identified stakeholders.

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates
In-class assessment Assessment Format: Individual	20%	Due Date: 01/08/2024 03:45 PM
Assignment 1 Assessment Format: Individual	30%	Due Date: 14/09/2024 11:55 PM
In-class assessment 2 Assessment Format: Individual	20%	Due Date: 03/10/2024 04:00 PM
Assignment 2 Assessment Format: Group	30%	Due Date: 03/11/2024 11:55 PM

Assessment Details

In-class assessment

Assessment Overview

This assessment is an in-class test focussing on students' comprehension of different software development approaches and project management related artifacts.

Course Learning Outcomes

- CLO4 : Use project management techniques

Detailed Assessment Description

In-Class Test 1 (during tutorial time)

Submission notes

paper submission

Assignment 1

Assessment Overview

This assessment requires the students to produce a portfolio of artifacts to describe a given system and satisfy given requirements.

Course Learning Outcomes

- CLO3 : Use a range of artefacts to describe system designs, including functional, structural

Detailed Assessment Description

Individual Design Portfolio

Assignment submission Turnitin type

This assignment is submitted through Turnitin and students can see Turnitin similarity reports.

In-class assessment 2

Assessment Overview

Given a set of artifacts students will need to answer a series of questions on the given design. Additionally, students will need to produce an ER diagram.

Course Learning Outcomes

- CLO3 : Use a range of artefacts to describe system designs, including functional, structural
- CLO4 : Use project management techniques

Detailed Assessment Description

In-Class Test 2 (during tutorial time)

Assignment 2

Assessment Overview

This assignment requires students to work in groups to develop a Software Design Document (SDD), which uses fundamental principles, development methodologies, and analysis and design practices. The students will capture stakeholder needs and transform them into a suitable set of development requirements before mapping them into a functional design using UML.

Course Learning Outcomes

- CLO1 : Explain different software development approaches, their strengths and weaknesses
- CLO2 : Construct a range of project management artefacts including a work breakdown structure and Gantt chart to accurately describe and track the status of an IT project
- CLO3 : Use a range of artefacts to describe system designs, including functional, structural
- CLO4 : Use project management techniques

- CLO5 : As a team construct artefacts that expresses a design that satisfies business, system, user, and ethical project requirements

Detailed Assessment Description

Group Assignment - Collaborative Design & Implementation

Presentations on Weeks 12 & 13

Report due on 3rd Nov.

Assignment submission Turnitin type

This assignment is submitted through Turnitin and students can see Turnitin similarity reports.

General Assessment Information

Use of Generative AI in Assessments

NO ASSISTANCE For Test 1 and Test 2:

It is prohibited to use any software or service to search for or generate information or answers. If its use is detected, it will be regards as serious academic misconduct and subject to the standard penalties, which may include 00FL, suspension and exclusion.

SIMPLE EDITING ASSISTANCE For Assignment 1 and Assignment 2.

For this assessment task, you may use standard editing and referencing software, but not Generative AI. You are permitted to use the full capabilities of the standard software to answer the question (e.g. Microsoft Office suite, Grammarly, etc.).

If the use of generative AI such as ChatGPT is detected, it will be regarded as serious academic misconduct and subject to the standard penalties, which may include 00FL, suspension and exclusion.

Grading Basis

Standard

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 15 July - 19 July	Topic	Introduction to Software Development & System Analysis and Design
Week 2 : 22 July - 26 July	Topic	Business Case & Financial Analysis
Week 3 : 29 July - 2 August	Topic	Systems Requirements & User Stories and Use Cases
	Assessment	In-Class Test 1 (during tutorial time)
Week 4 : 5 August - 9 August	Topic	Domain Modelling & Use Case Modelling
Week 5 : 12 August - 16 August	Topic	Systems Design & Systems Architecture
Week 6 : 19 August - 23 August	Topic	Designing User Interface & Designing Database
Week 7 : 9 September - 13 September	Topic	System Development
	Assessment	Assignment 1 (due on Friday)
Week 8 : 16 September - 20 September	Topic	Project Management – Scheduling
Week 9 : 23 September - 27 September	Topic	Project Resource Management
Week 10 : 30 September - 4 October	Topic	Project Cost, Risk & Ethics
	Assessment	In-Class Test 2 (during tutorial time)
Week 11 : 7 October - 11 October	Other	Public Holiday
Week 12 : 14 October - 18 October	Topic	Object-Oriented Design & Use Case Realization
	Assessment	Assignment 2 (Group Assignmnet - Presentations)
Week 13 : 21 October - 25 October	Topic	Deploying New Systems
	Assessment	Assignment 2 (Group Assignmnet - Presentations)

Attendance Requirements

Students are strongly encouraged to attend all classes and review lecture recordings.

Course Resources

Prescribed Resources

Satzinger, J. W., Jackson, R. B., & Burd, S. D. (2016). *Systems analysis and design in a changing world*, 7th edition. Cengage learning.

Recommended Resources

Tilley, S. (2020). Systems Analysis and Design. 12th edition. Cengage Learning.

Dennis, A., Wixom, B. and Tegarden, D. (2015). *Systems Analysis and Design with UML Version 2.0: An Object-Oriented Approach*, 5th edition, John Wiley.

Coronel, C., Morris, S. (2018). *Database Systems: Design, Implementation, & Management*, 13th edition, Cengage Learning.

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Lecturer	Ruhul Sarker		Room 218, Building 15	02 5114 5203	Thursdays 1500 - 1600 (week 8 - 10)	No	No
Convenor	Alireza Abbasi		Room 362, Building 21	02 5114 5108	Mondays 1300 - 1400	No	Yes

Other Useful Information

School-specific Information

The Leaning Management System

Moodle is the Learning Management System used at UNSW Canberra. All courses have a Moodle site which will become available to students at least one week before the start of semester. Please find all help and documentation (including Blackboard Collaborate) at the Moodle Support page.

UNSW Moodle supports the following web browsers:
• Google Chrome 50+
• Safari 10+
Internet Explorer is not recommended. Addons and Toolbars can affect any browser's performance.

Operating systems recommended are:
• Windows 10,
• Mac OSX Sierra,
• iPad IOS10

Further details:
Moodle System Requirements
Moodle Log In

If you need further assistance with Moodle:

For enrolment and login issues please contact:
IT Service Centre

Email: itservicecentre@unsw.edu.au

Phone: (02) 9385-1333

International: +61 2 9385 1333

For all other Moodle issues please contact:

External TELT Support

Email: externalteltsupport@unsw.edu.au

Phone: (02) 9385-3331

International: +61 2 938 53331

Opening hours:

Monday – Friday 7:30am – 9:30 pm

Saturday & Sunday 8:30 am – 4:30pm

Study at UNSW Canberra

Study at UNSW Canberra has lots of useful information regarding:

- Where to get help
- Administrative matters
- Getting your passwords set up
- How to log on to Moodle
- Accessing the Library and other areas.

UNSW Canberra Student Hub

For News and Notices, Student Services and Support, Campus Comminity, Quick Links, Important Dates and Upcoming Events

School Contact Information

Deputy Head of School (Education): Dr Erandi Hene Kankanamge

E: e.henekankanamge@adfa.edu.au

T: 02 5114 5157

Syscom Admin Support: syscom@unsw.edu.au

T: 02 5114 5284

Syscom Admin Office: Building 15, Level 1, Room 101 (open 10am to 4pm, Mon to Fri)