CS4514: PROJECT

Effective Term
Semester A 2025/26

Part I Course Overview

Course Title
Project

Subject Code
CS - Computer Science
Course Number
4514

Academic Unit
Computer Science (CS)

College/School
College of Computing (CC)

Course Duration
Two Semesters

Credit Units
0-9

Level
B1, B2, B3, B4 - Bachelor's Degree

Medium of Instruction
English

Medium of Assessment
English

Prerequisites
CS3504 IT Professional Placement or CS3505 IT Professional Internship or
Approval from Programme Leader if CS3504 / CS3505 have not been completed.

Precursors
Nil

Equivalent Courses
FS4004 Overseas Research Internship Scheme

Exclusive Courses
Nil

Part II Course Details

Abstract

This course is for students to explore individually an area of computing of their own choice. Students will apply their skills and knowledge of this area of interest to further their understanding of computer science. Students exercise good management methods to the planning, developing, and monitoring of progress. It provides the context for students to demonstrate their ability to integrate computer related knowledge they have acquired in other preceding and concurrent courses of study, including applying good technical and presentation skills. Students will also apply their ability to innovate in the design of novel systems as well as the discovery of solutions to challenging technical problems.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Identify and describe real-life, computer-related problems in a chosen area of computing that involve novel designs or creative solutions.		x	x	
2	Analyze requirements, review related works, and propose innovative solution with realistic constraints (such as costs, operational, social, cultural, ethical, health, or safety).		x	x	
3	Demonstrate a proof-of-concept for their solutions by designing and developing computer systems that implement the solutions			x	x
4	Design test cases and evaluate the developed systems in the light of the initial system requirements.		x	x	
5	Document and report their system design, analysis, implementation and evaluation findings, through written reports and presentation.				x
6	Plan, monitor, and report their project progress.				

A1: Attitude
Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability
Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

A3: Accomplishments
Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

Learning and Teaching Activities (LTAs)

	LTAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Project proposal	Student wil propose and manage their own projects under guidances. Each student will have a supervisor on a one for one basis for each project. The role of the supervisor is to closely monitor the project to give advice to the student, to establish criteria for assessment, and to detect and, if asked, advise on possible solutions to potential problems recognized at an early stage. In particular, the supervisor is expected to encourage the student to explore innovative approaches and alert the student to the possibility of alternative and novel solutions to problems encountered.	1	
2	Project plan	Planning for the project –The student will choose a project topic, outline the level of innovation and creativity involved, identify the problem for investigation and draft up a project plan.	1	
3	Literature review and design of solution	Proposing their solutions – Students will analyze the problem identified and research on existing and/or related solutions. Then they will propose their solutions which meet the identified requirements and constraints, indicating in innovative aspects or provide novel alternatives to existing solutions.	2	
4	Prototyping and evaluation	Students will implement and evaluate their solutions – Students will design a computer system that implements their solutions; and to test and evaluate their systems.	3, 4	

5	Report and oral presentation	Student will document and report their project -- Students will produce regular progress reports and final report as an integral part of the project documentation. At the end, they will present their projects in the form of oral presentation and demonstration.	5	
6	Project management	Students will work independently, show initiative, and take responsibility for the success of their work. They will hold regular meetings with their supervisor, normally at least once per fortnight.	6	

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks ("-" for nil entry)	Allow Use of GenAI?
1	Project Plan	1	5	Use GenAI to polish only. Original components should be largely from the students.	Yes
2	Interim Report I	2, 6	5	Use GenAI to polish only. Original components should be largely from the students.	Yes
3	Interim Report II	3, 6	5	Use GenAI to polish only. Original components should be largely from the students.	Yes
4	Project Management	6	5	Use GenAI to polish only. Original components should be largely from the students.	Yes
5	Technical Merit	1, 2, 3, 4	40	Use GenAI to polish only. Original components should be largely from the students.	Yes

6	Final Report	2, 5	25	Use GenAI to polish only. Original components should be largely from the students.	Yes
7	Oral Presentation	5	10	Use GenAI to polish only. Original components should be largely from the students.	Yes
8	Demonstration	3, 4	5	Use GenAI to polish only. Original components should be largely from the students.	Yes

Continuous Assessment (%)
100

Examination (%)
0

Assessment Rubrics (AR)

Assessment Task
Project Pan

Criterion
Scope, objective, schedule and methodology

Excellent (A+, A, A-)
High

Good (B+, B, B-)
Significant

Fair (C+, C, C-)
Moderate

Marginal (D)
Basic

Failure (F)
Not even reaching marginal level

Assessment Task
Interim Report I

Criterion

Literature review

Excellent (A+, A, A-)
High

Good (B+, B, B-)
Significant

Fair (C+, C, C-)
Moderate

Marginal (D)
Basic

Failure (F)
Not even reaching marginal level

Assessment Task
Interim Report I

Criterion
Problem analysis and design of solution

Excellent (A+, A, A-)
High

Good (B+, B, B-)
Significant

Fair (C+, C, C-)
Moderate

Marginal (D)
Basic

Failure (F)
Not even reaching marginal level

Assessment Task
Interim Report II

Criterion
System design, prototyping and preliminary result

Excellent (A+, A, A-)
High

Good (B+, B, B-)
Significant

Fair (C+, C, C-)
Moderate

Marginal (D)
Basic

Failure (F)
Not even reaching marginal level

Assessment Task
Project Management

Criterion
Management skill and timely report of intermedia results

Excellent (A+, A, A-)
High

Good (B+, B, B-)
Significant

Fair (C+, C, C-)
Moderate

Marginal (D)
Basic

Failure (F)
Not even reaching marginal level

Assessment Task
Technical Merit

Criterion
The extent in which the project demonstrates 1) creativity, 2) arts of problem solving

Excellent (A+, A, A-)
High

Good (B+, B, B-)
Significant

Fair (C+, C, C-)
Moderate

Marginal (D)
Basic

Failure (F)
Not even reaching marginal level

Assessment Task
Technical Merit

Criterion
The extent in which the project demonstrates the application of 1) specialized knowledge in computer science, 2) use of software engineering methodology

Excellent (A+, A, A-)
High

Good (B+, B, B-)
Significant

Fair (C+, C, C-)
Moderate

Marginal (D)
Basic

Failure (F)
Not even reaching marginal level

Assessment Task
Technical Merit

Criterion
Quality of deliverable

Excellent (A+, A, A-)
High

Good (B+, B, B-)
Significant

Fair (C+, C, C-)
Moderate

Marginal (D)
Basic

Failure (F)
Not even reaching marginal level

Assessment Task
Final Report

Criterion
Quality of report in documenting the project work done

Excellent (A+, A, A-)
High

Good (B+, B, B-)
Significant

Fair (C+, C, C-)
Moderate

Marginal (D)
Basic

Failure (F)
Not even reaching marginal level

Assessment Task
Oral Presentation

Criterion
Presentation and communication skill

Excellent (A+, A, A-)
High

Good (B+, B, B-)
Significant

Fair (C+, C, C-)
Moderate

Marginal (D)
Basic

Failure (F)
Not even reaching marginal level

Assessment Task
Demonstration

Criterion
Functionality of a developed software

Excellent (A+, A, A-)
High

Good (B+, B, B-)
Significant

Fair (C+, C, C-)
Moderate

Marginal (D)
Basic

Failure (F)
Not even reaching marginal level

Part III Other Information

Keyword Syllabus

Student will work on a computer science project under the supervision of a faculty member and submit a project report on the work carried out.

Reading List

Compulsory Readings

	Title
1	Nil

Additional Readings

	Title
1	Nil