



SCHOOL OF COMPUTING AND INFORMATICS



UNIVERSITI TEKNOLOGI BRUNEI

# Capstone Project Details

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# CC

## Creative Computing

BSc (Hons) in Digital Media:

- Major in Digital Content Design
- Major in Game Development

# CNS

## Computer Network Security

- BSc (Hons) in Computer Networking
- Bsc (Hons) in Information Security

# CIS

## Computer and Information System

Bsc. in Computing:

- Major in Data Analytics
- Major in Software Development

SCI

# Undergraduate Programs

Visit <https://www.utb.edu.bn/academics/school-of-computing-and-informatics/> for more details.

# Introduction To Capstone Project

Capstone project is a Module (subject) that is **mandatory** for all SCI final year students taken in the final Semester 6 (**for Six months from January to June**).

The aim is to provide a platform for students to **develop real-world projects** while gaining **work experience in an organisation** related to their respective programme.

This allow students to **draw and apply learnt skills and knowledge** to solve real-world problems.

Upon successful completion of this module, students will be able to:

1

Choose appropriate methodology to complete projects.

2

Apply skills and knowledge to solve real-world problems.

3

Use appropriate tools and techniques effectively to solve problems.

4

Analyse the project outcomes in accordance with the project's goals.

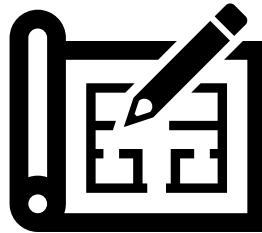
5

Demonstrate competencies in writing and in oral presentation.

# Components in Capstone Project

Students will be attached to the organization for six months.

During this time, they will carry out two components:



## Capstone Project

- **Top priority!**
- **More weight** (50 CV) that can affect students' final classification.



## Internship

- Graded either satisfactory or not satisfactory.
- Does not affect final classification.
- **Max 2 days per week.**

# Nature of Capstone Projects

Projects should be **comprehensive research and/or practical-based projects** that allow students to apply and demonstrate skills and knowledge they have acquired throughout their course.

This can include:

- **Original research related to a topic/needs/issue:** Require students to conduct extensive research and analysis.
- **Development of new product or service:** Involve students in designing, developing and implementing software.
- **Explore Emerging technologies:** Demonstrated by creation of some artefacts.

# Capstone Project Titles

Capstone projects can come from:

## **Industry-proposed Projects**

Organisations propose suitable project(s) for the student(s) to carry out within the organisations.

## **UTB-proposed Projects**

UTB academic staff and/or students propose suitable projects to be carried out within relevant organisations.



# Project Proposal Procedures



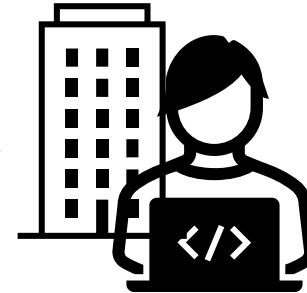
Organisation **propose projects.**

(Must be submitted to us by 27 October 2024).



SCI will **assign students to accepted projects.**

(by 16 November 2024).



Student will work on project **for six months** (starting 5 January 2025 until 30 June 2025) while stationed at organisation.

Student will be assessed throughout the duration of the project by both the host and UTB SCI supervisors.

# Sample Past Projects

- National Emergency Response System (Brunei Fire Rescue Department)
- Digitalisation of Assessment of Al-Quran Memorisation (Institut Tahfidz)
- Process Mining on a LMS (Telkom University)
- Exhibition Artefacts (Arkib Negara Brunei)
- Game Show (RTB)
- Various Advertisement/Awareness Videos (e.g., Forestry, BruCERT)

# Supervision Roles



## Host Supervisor

- Primary supervision: guide and facilitate students in completing project.
- Assess student by marking proposal, mid-term and final progress.
- Contribute 20% of students' final marks.



## UTB Supervisor

- Supervise students regarding academic aspects e.g., advise report structure and content.
- Assess student by marking proposal, mid-term and final progress.
- Contribute 80% of students' final marks.

# Supervision Goals

Students should be able to demonstrate:

- Their ability to apply practical and analytical skills.
- creativity and innovation.
- Their ability to self-manage the project.
- Critically evaluate the information, ideas, and practices with an evaluation of the solution.
- that the project meets real-world context.

# Project and Report Structure

Projects should have the following components:

- Problem definition
- Background Study
- Problem Analysis and Design
- Implementation and Testing
- Results and Analysis

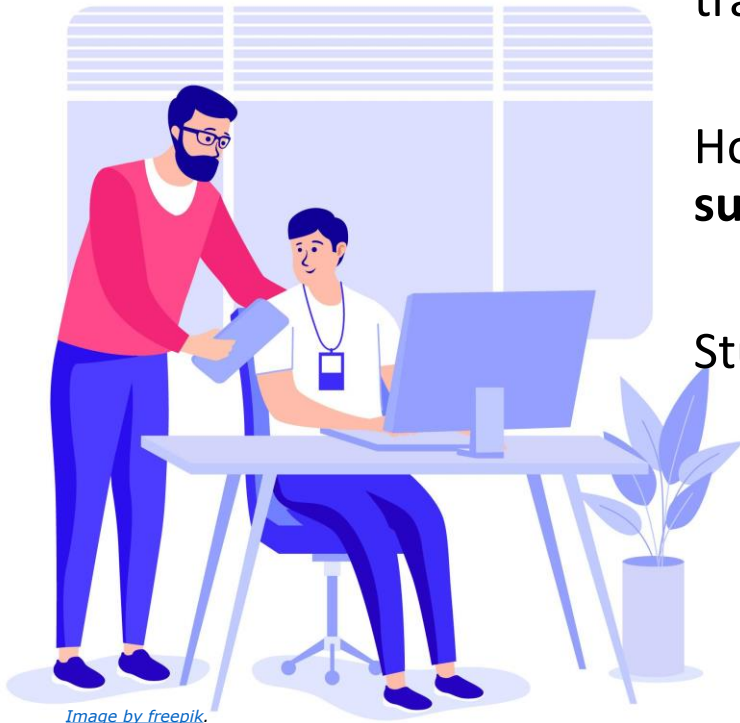
(If the individual student's work is part of a more significant project, a clear indication of the student's role in achieving the project goals must be stated.)

# Internship

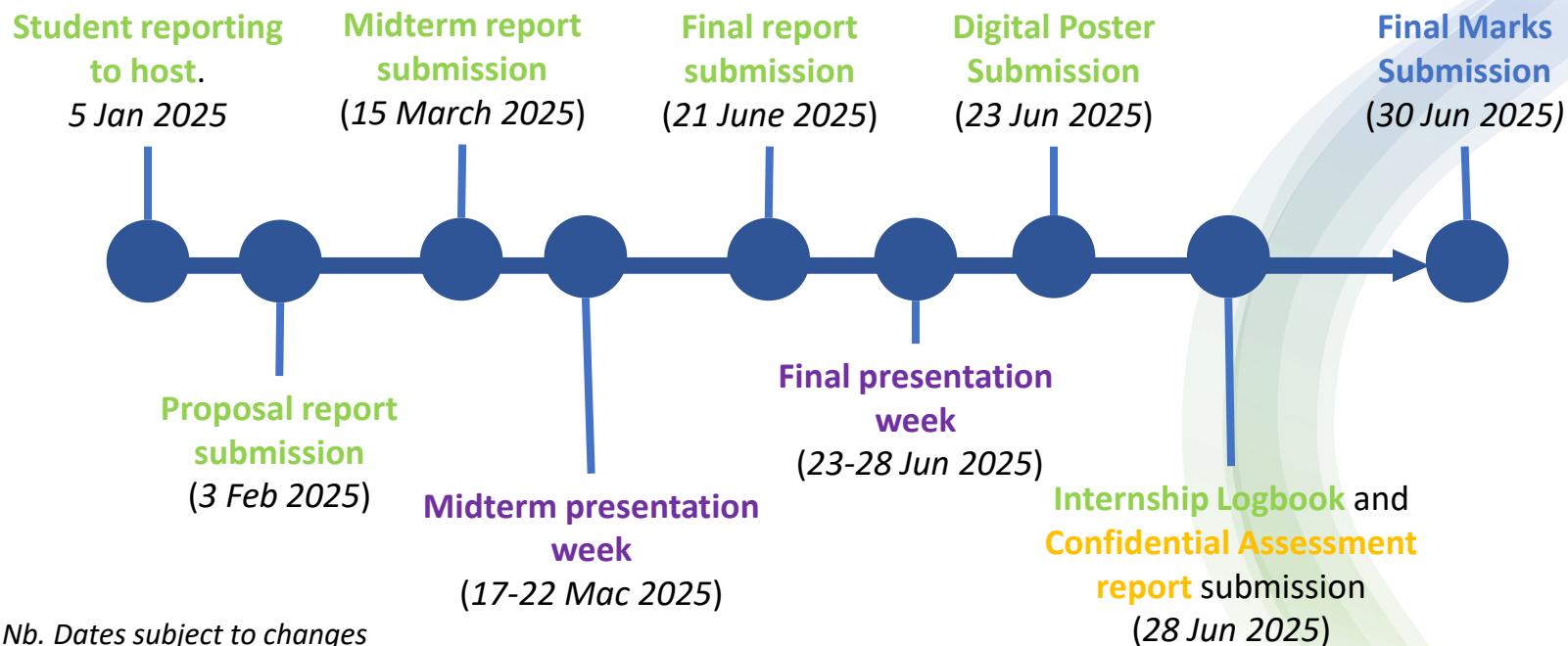
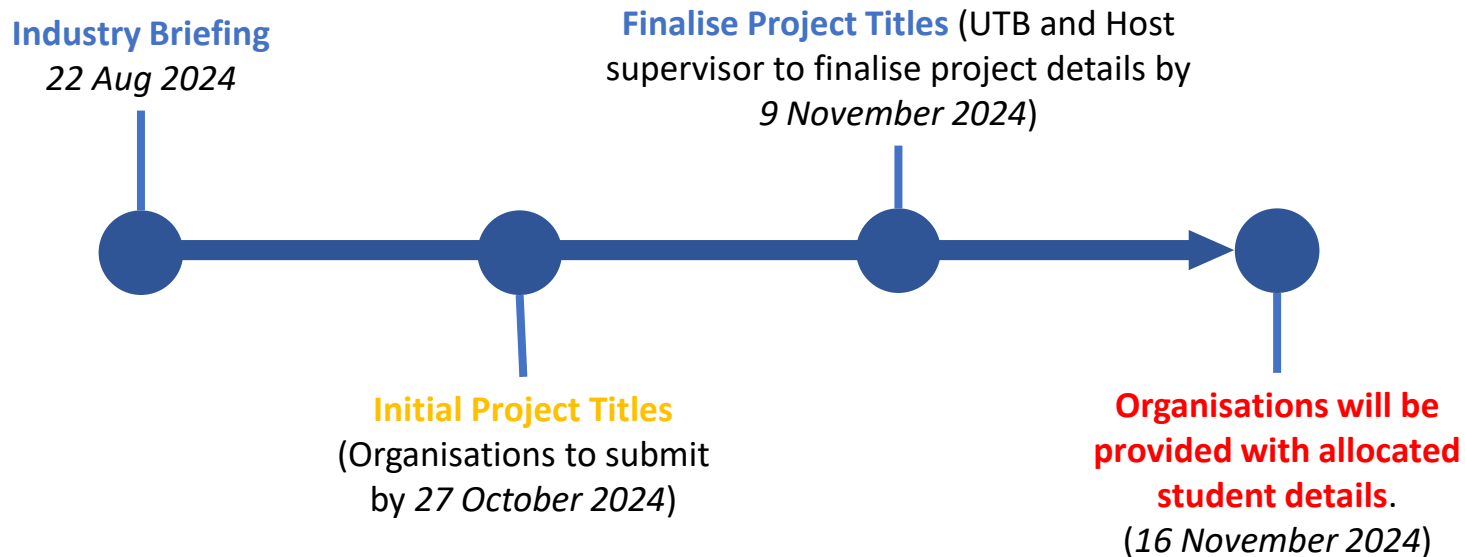
Host organisation should provide an opportunity for students to gain work experience through some structured program, and training, guidance, and supervision to students.

However, Host supervisor need to consider the **workload and suitability** of internship tasks.

Student should **only carry out internship tasks 2 days per week.**



# Capstone Timeline



Actions by

- Student
- SCI
- All SCI, students, and host supervisors.
- Host supervisor
- Host and UTB SCI

*Nb. Dates subject to changes*

# Capstone Project Assessments

Students will produce three reports throughout the Capstone Project.

Proposal 10%	Mid-Term 30%	Final 60%
a. Problem definition 5%	a. Problem definition 5%	a. Improvement from Mid-term 5%
b. Background study 30%	b. Background study 20%	b. Development process 35%
c. Proposed solution 25%	c. Proposed solution 25%	c. Project Outcomes 30%
d. Analysis 30%	d. Analysis 30%	d. Completion 10%
e. Projection 5%	e. Projection 10%	e. Report 10%
f. Report 5%	f. Report 5%	f. Poster and Presentation 10%
	g. Presentation 5%	

**\* 20% of student's total mark will be from the host organisation and 80% from the UTB supervisor.**



# Internship Assessments

The following competencies are assessed for the Internship component:

- Managing And Developing Self
- Working With And Relating To Others
- Communicating
- Managing Tasks And Solving Problems
- Applying Technology
- Applying Design And Creativity

Students' Logbook needs to be signed by host supervisor every week. This is to be submitted by the students.

Host supervisor also need to submit a short attachment report.

# Potential Problems

There are several things to look out during the Capstone Project, such as:

- Conduct
- Attendance
- Lack of supervisory support
- High expectation
- Unbalanced internship and capstone
- Lack of communication between host and UTB supervisor

UTB supervisors will periodically check up on their students' progress. We also strongly advise for host supervisors to keep in touch with UTB supervisors.

# Assessment - Summary

<b>Host Supervisor</b>	<b>UTB Supervisor</b>	<b>ExperiencePlus (Internship) Coordinator</b>
Proposal report	Proposal report	
Mid-term report	Mid-term report	
Final report	Final report	
Logbook (review the student tasks weekly)	Logbook (review during milestones and meetings)	Receive Logbook final presentation.
Confidential Industrial Attachment Assessment (email to ExperiencePlus Coordinator only)		Collect and compile Confidential Industrial Attachment Assessment after second presentation.

# Host Organisations' Primary Task Checklist

Task	Description
<b>Propose Project Title</b>	Organisation needs to submit proposed project title to UTB.
<b>Acknowledge students reporting on first day.</b>	Host supervisor needs to acknowledge that students have reported to their organisation on 5 January 2025.
<b>Provide working space for students for six months.</b>	Students attached to organization should have an appropriate working space such as desk and chair.
<b>Oversee and sign-off students' tasks every week.</b>	Students will report their weekly tasks on a logbook assigned by UTB. Host supervisor needs to sign-off and verify their report.
<b>Assess students' proposal, midterm, and final report.</b>	Host supervisor will be provided with the marking forms. They must assess all reports and submit their marks to the Capstone coordinator and UTB Supervisor at the end of the Capstone project.
<b>Attend and assess students' midterm and final presentation.</b>	Presentation time and venue will be discussed between host and UTB supervisors.
<b>Communicate with UTB supervisors on any issues.</b>	Host supervisor is advised to contact UTB supervisors regarding any issues, in particular disciplinary matters.

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For further information, contact [scicapstone@utb.edu.bn](mailto:scicapstone@utb.edu.bn).