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POLYTECHNIC UNIVERSITY  
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Department of Computing  
電子計算學系

# Department of Computing

## COMP4913 Capstone Project Handbook

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This Capstone Project Handbook is subject to review and changes which the subject offering Department can decide to make from time to time. Students will be informed of the changes as and when appropriate.

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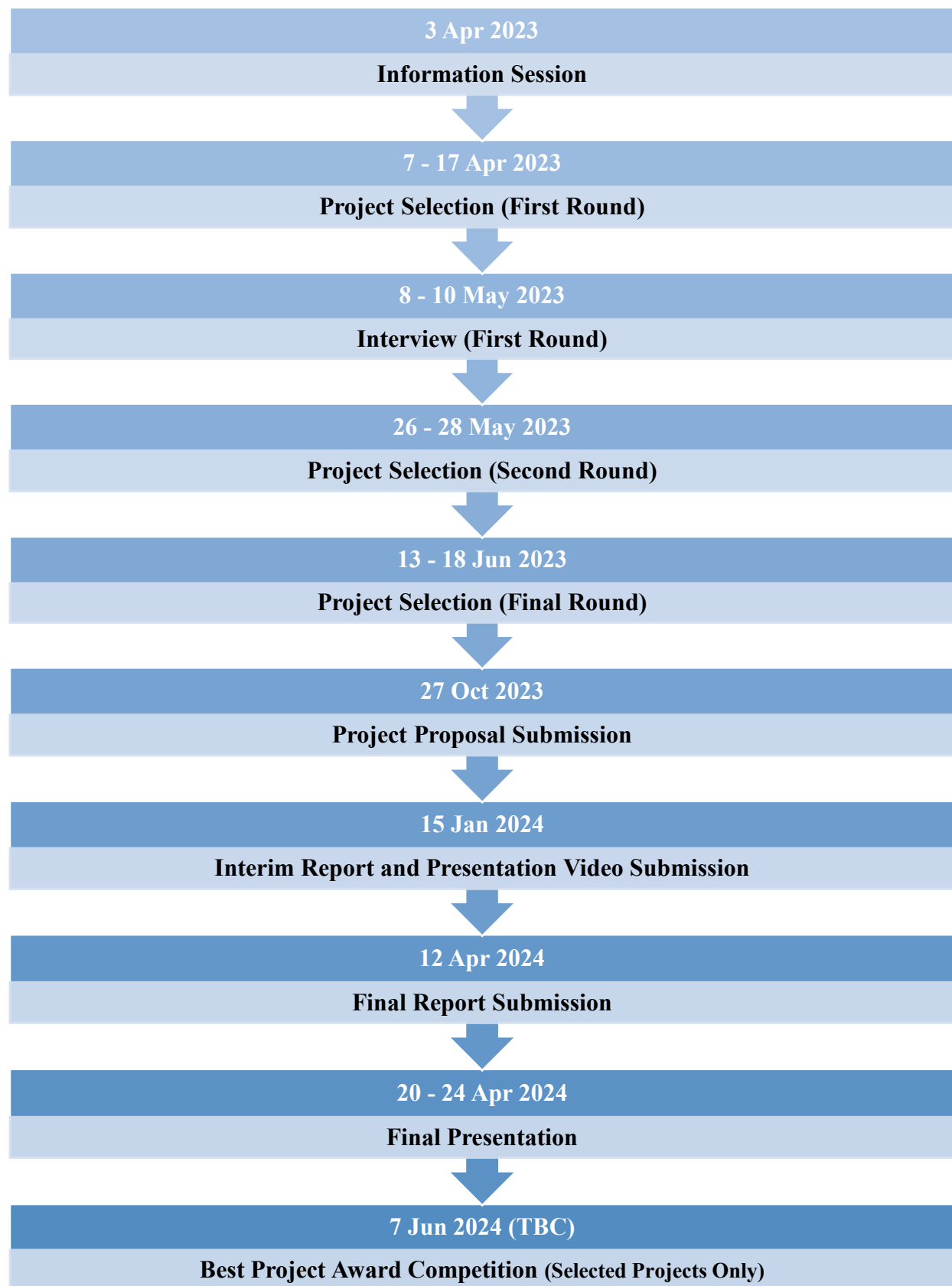
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## **Preface**

To help students develop their generic competencies, as well as prepare them for professional practice in the workplace, for further academic pursuits and for lifelong learning, the University has a mandatory Capstone Project learning experience requirement for all four-year undergraduate programmes. Students are expected to consolidate their learning experiences accumulated over their entire undergraduate study in the Capstone Project.

This handbook aims to provide you with a better understanding of the Capstone Project, including the allocation, proposal and report requirements, presentation arrangements, etc.

## Part 1: Capstone Project Timeline



## Part 2: Project Selection and Assignment

### 2.1 Proposed Projects, Rationale and Publicity

- i. Each faculty member will be assigned with an appropriate capstone project supervision loading by the Department;
- ii. Faculty members will prepare a list of proposed projects and specify the quota for each project, together with a brief description and expected outcomes of the project; and
- iii. The list of project proposals will be assembled and posted on the Intranet before each project selection round. Please refer to the Capstone Project Timeline for details.

### 2.2 Project Information Session

- i. During the project information session, some project supervisors will introduce their proposed projects to the students; and
- ii. List of projects with introductory session will be given in the rundown posted on the Intranet before the information session.

### 2.3 Project Selection and Allocation

#### 2.3.1 First Round Allocation

- i. Students should submit a project preference form indicating 10 interested projects, in descending order, via the [Capstone Project Selection System](#);

Students	Projects to Choose
BSc Computing/ IT	Category A projects only
BSc EIS	Category B projects only
BSc Information Security	Category C projects only
BSc FinTech/ FinTech and AI	Category D projects only

- ii. During the interview period (refer to 2.3.5 for more details about interviews), students may resubmit their project preference form if they would need to re-prioritize or delete some of their project choices. However, NO new projects can be added;
- iii. Similar to the well-known JUPAS allocation model, a fair computer program will be run to allocate capstone projects to students; and
- iv. Project allocation result and remaining projects for next round will be posted on the Intranet 1 week after the interview period.

### 2.3.2 Second Round Allocation

- i. This round is only applicable to students who were not allocated a project in the First round; and
- ii. It follows the same processes as of the First round, except:

Students	Projects to Choose
BSc Computing/ IT/ EIS	Category A or B projects only
BSc Information Security	Category C projects only
BSc FinTech/ FinTech and AI	Category D projects only

### 2.3.3 Final Round Allocation

- i. After the release of Second round allocation results, students who have not been assigned with a project should submit a new selection form via the [Capstone Project Selection System](#);
- ii. The selection form should indicate student's 10 interested projects and 5 areas in descending order;
- iii. The Capstone Project coordinator will assign projects to students based on **students' preferences and staff supervision quota** with the following process
  - a. All 1<sup>st</sup> choices of students' preferences will be processed. If more than one students select the same project with the same preference, the project will be assigned randomly to one of them;
  - b. The same rule is used to process all 2<sup>nd</sup> choices for remaining students (not yet assigned projects) and so on. The process will be repeated until all 10 interested projects are used up;
  - c. For the remaining students (not yet have a project assigned), they are randomly selected to assign a supervisor according to their interested areas; and
- iv. After the assignment results are finalized, it will be posted on the Intranet.

### 2.3.4 Special Arrangement for Previous Withdrawal Cases

Students who have withdrawn from their capstone projects may choose to bypass the selection process if they are retaking the same project with the same supervisor. Students who opt for this arrangement **must work out the details with their supervisor and inform the General Office via email ([comp.capstone@polyu.edu.hk](mailto:comp.capstone@polyu.edu.hk)) by the end of the First round interview period.**

### 2.3.5 Interview

- i. The list of students who are interested in each project is made known to the project supervisor. **Supervisors would decide whether or not to conduct interviews for interested students;**
- ii. Interviews will only be arranged for the first two rounds of project selection and students may have multiple interview offers; and
- iii. Schedules will be posted on the Intranet before each interview period.

### **Part 3: Change of Project Title**

To allow sufficient time to conduct the Capstone Project, students are not advised to change their project titles after project allocation. However, modifications on the project title are acceptable when these are agreed by the project supervisors.

Students may modify the project title via [Capstone Project Submission System](#) during submission periods of project proposal, interim report and final report. You will receive an on-screen notification and a system-generated email for successful updating.

After the submission of final report, students are not allowed to modify the project title only except when there is a genuine need to do so. Students will need to seek supervisor's endorsement via "Project Title Final Change Form" (Appendix C) during the final presentation. The signed form should be submitted to the General Office once after the final presentation.

### **Part 4: Project Proposal Submission**

#### **4.1 Submission and Schedule**

Students should upload ONE soft copy (in PDF format) of the project proposal to [Capstone Project Submission System](#) before the deadline specified in the Capstone Project Timeline. Please make sure you have received an on-screen notification and a system-generated email for successful uploading.

#### **4.2 General Requirements**

The project proposal should outline the project topic to be investigated. To write a good proposal, a thorough and systematic review of the related work must be conducted. You should clearly define the problem(s) to be solved, indicate the significance of the potential solution(s), understand the methodologies and techniques to be used, and propose a work plan. Consequently, the proposal should include sections on its background, problems, objectives, methods to be used, expected deliverables/outcomes, and an estimated schedule.

For the sample structure and formatting requirements of the proposal, please refer to Part 10.



## Part 5: Document Submission

Below please find the summary of document submission for interim and final assessment:

Documents	Interim Assessment	Final Assessment
Meeting Notes	✓	✓
Interim / Final Report	✓	✓
Turnitin Report		✓
One-page Project Summary		✓
Declaration of Originality		✓
Presentation Video (<15min)	✓	
Presentation File	✓	✓

Please make sure you have received an on-screen notification and a system-generated email for every successful uploading.

### 5.1 Meeting Notes

- Students should meet with their supervisors regularly. For project management purposes, meeting notes should be prepared to record the meeting discussion, action points, problems encountered and other related information. For example, the meeting notes should and record the supervisor's feedback on project proposal and the corresponding action points. The meeting notes should be reviewed by your supervisor;
- If students are working in the same project group, there should be differences in meeting notes for each student as the preparation of meeting notes is an individual work;
- Students should submit at least four sets of meeting notes (in PDF format) together with the interim report (i.e., at least 4 sets between September and December) and final report (i.e., at least 4 sets between January and April) for assessment based on the rubric in Part 9 to the [Capstone Project Submission System](#); and
- There is no need to submit the meeting notes to the Turnitin System.

### 5.2 Interim Report

- Students should submit an interim report (in PDF format) to the [Capstone Project Submission System](#), which is expected to contain the skeleton of the final report; before the deadline specified in the Capstone Project Timeline. Late submissions will not be accepted. Please refer to Section 9.2 for more details of penalty;
- For group projects in which a student is doing certain part, he/she should submit an individual interim report to give an overview of the project and to report his/her own progress in contributing to the bigger project. Please refer to Section 5.8 for more details of individual work requirements;
- The report, excluding preamble and appendices, should normally not exceed 50 pages in length; and
- For the report cover, formatting and submission requirement, please refer to Part 10.

### 5.3 Final Report

- i. Students should submit a final report (in PDF format) to the [Capstone Project Submission System](#) before the deadline specified in the Capstone Project Timeline. Late submissions will not be accepted. Please refer to Section 9.2 for more details of penalty;
- ii. For group projects in which a student is doing certain part, he/she should submit an individual report to give an overview of the project and to provide the proper context and to explain clearly his/her own contributions within the bigger project. Please refer to Section 5.8 for more details of individual work requirements;
- iii. The report, excluding preamble and appendices, should normally not exceed 50 pages in length;
- iv. The report should be submitted to the [Turnitin](#) System to generate the similarity report. The similarity report (in PDF format) should be submitted to the [Capstone Project Submission System](#);
- v. After generating the similarity report, students are required to submit the form “Declaration of Originality” (Appendix B) in PDF format together with the final report to the [Capstone Project Submission System](#); and
- vi. For the report cover, formatting and submission requirements, please refer to Part 10.

### 5.4 One-page Project Summary

- i. In addition to the final report, students should also submit an one-page project summary (in MS Word) based on the IEEE paper format<sup>^</sup> (i.e., using an academic paper format) to the [Capstone Project Submission System](#). The project summary is assessed based on the rubric in Part 9;
- ii. A template can be found in the COMP Intranet; and
- iii. Selected project summaries with the consistent academic paper format will be published as a capstone project summary booklet for archival purposes.

<sup>^</sup> IEEE paper format (<https://www.ieee.org/conferences/publishing/templates.html>)

### 5.5 Presentation Video

- i. In interim assessment, students should submit a 10~15min presentation video in mp4 format to the [Capstone Project Submission System](#). The video should be at least 720p and no longer than 15 minutes.
- ii. Please make sure the fonts in presentation slides are clearly legible in the presentation video and the video can be played smoothly.
- iii. For identification and authentication purpose, students should show student ID at the beginning of the presentation video and show the presenter’s face throughout the presentation video.
- iv. Students can use Microsoft Teams, Zoom or other softwares to make the presentation video. If Zoom is used, please note that NOT the entire powerpoint (during screen-sharing) could be captured by the camera. The top right-hand corner would be covered.

## 5.6 Presentation File

- i. Students should submit a presentation file at the END of the interim and final presentations to the [Capstone Project Submission System](#); and
- ii. The presentation file should be converted into PDF format and named as ‘17001234d.pdf’, where 17001234d is to be replaced by the student ID.

## 5.7 Additional Files

Students may zip and submit other files (e.g., source code) in one zip file to the [Capstone Project Submission System](#).

## 5.8 Individual Work

- i. Students are expected to submit individual reports and should not duplicate, either wholly or partially, the work of other students without proper acknowledgement and prior agreement from the other students concerned;
- ii. Students should not use GenAI tools (e.g., ChatGPT) to generate reports or codes without proper acknowledgement and supervisor’s approval; and
- iii. For group projects in which a student is doing certain part, he/she should submit an individual report to give an overview of the project and to provide the proper context and to explain clearly his/her own contributions within the bigger project. In the individual report, the student should 1) clearly specify that his/her work is a part of a group project; 2) list all group members; and 3) summarize each member’s individual contribution in the group project in the Declaration of Individual Contribution in Group Project (Appendix D). The declaration form (in PDF format) should be submitted to the [Capstone Project Submission System](#).

## 5.9 Plagiarism

It is students’ responsibility to ensure that all their reports are plagiarism-free. The University highly regards the importance and value of academic honesty, thus students who have committed plagiarism will be subject to disciplinary actions by the University. Any suspected text in the report, a paragraph or even a single sentence, will probably lead to a reduction on the overall grade of the report. More serious cases would lead to further disciplinary actions, including failing the project, and/or awarded with one lower honour classification, and/or even de-registration from the University.

If you encounter any technical problem of document submission and/or do not receive the on-screen notification and system-generated email after updating/uploading, please contact the Technical Team via email ([helpdesk@comp.polyu.edu.hk](mailto:helpdesk@comp.polyu.edu.hk)).

## Part 6: Presentations

### 6.1 Objectives and General Information

The objectives of the presentations are twofold:

1. it is an assessment component of the Capstone Project; and
2. it is an occasion for interested parties to participate.

Owing to the limited amount of time for each presentation/demonstration session, the session should be conducted in a controlled manner. Being the chairman of your session, your supervisor would conduct the session and allow time for presentation, demonstration, and question and answer in that order.

#### Video Recording of the Presentation

The interim presentations will be video-recorded. The final presentations will be face-to-face. The purpose of recording is *mainly for the assessment* of the Capstone Project. Selected videos will also be shown to authorised panels during quality assurance and accreditation exercises. The followings are some guidelines to assist you in your presentation/demonstration.

### 6.2 Before the Presentation

- i. Set up your presentation/demonstration files well before your presentation session;
- ii. If you bring your own notebook for presentation, you should prepare a Display Adapter suitable for VGA or HDMI projection. Testing in one/more days in advance in the assigned presentation room is highly recommended; and
- iii. No presentation pointer will be provided. Students should bring their own ones.

### 6.3 During the Presentation

- i. *Each session would start at either “00” or “30” minutes in an hour, thus it **would end sharply at the corresponding “20” or “50” minutes in an hour**. If you find that your previous presenter has overrun his/her time, i.e. if he/she is using up your time, you have the ***privilege to demand*** him/her to hand over the venue to you ***immediately***;*
- ii. Use English in your presentation;
- iii. Be relaxed and well-dressed for the occasion;
- iv. Be on time. Marks would be deducted for overrunning and the chairman and co-examiner could terminate the presentation when it overruns; and
- v. You should have at most 20 minutes for the presentation, including:
  - ***Presentation*** of your results and/or products
  - ***Demonstration***
  - ***Question and Answer***

## 6.4 After the Presentation

You are required to upload your powerpoint file (in PDF format) to the [Capstone Project Submission System](#) once the presentation is finished.

## Part 7: Best Project Award Competition

Outstanding projects will be selected to compete for the Best Project Award. While selected students will be contacted by the Department on an individual basis, all students should reserve the date, as shown in the Capstone Project Timeline, to join this annual event.

## Part 8: Intellectual Property

The Capstone Project, as intellectual property created by students, shall be owned by the University. Details of intellectual property could be found in the [Student Handbook](#).

## Part 9: Assessment

Each capstone project is assessed by the supervisor, a co-examiner and a 2<sup>nd</sup> assessor<sup>1</sup> using rubric-based assessment. Unless otherwise specified, the weighting percentage for all assessment components are as follows:

	Supervisor	Co-Examiner	2 <sup>nd</sup> Assessor
Interim Assessment	60%	40%	N/A
Final Assessment	50%	30%	20%

The interim assessment and final assessment account for **20%** and **80%** of the overall grade respectively.

To maintain consistency and ensure quality among all capstone projects, there is also a quality assurance committee to manage the overall assessments. A student grade may be adjusted by the quality assurance committee for consideration and approval by the Subject Assessment Review Panel (SARP) committee.

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<sup>1</sup> 2<sup>nd</sup> Assessor would only assess the final report and final presentation.

## 9.1 Criterion Referencing Assessment and Grading

With the universities' implementation of criterion-referencing assessment, all subjects must be assessed against a set of objective criteria. The generic criteria for the assessment of capstone projects are:

### 9.1.1 Project Proposal

A project proposal is assessed by the supervisor to make a pass/fail decision in accordance with the following holistic rubric.

Pass	Fail
Satisfactory project proposal with a satisfactory project plan. All pre-requisite study/requirement(s) fulfilled.	Unsatisfactory project proposal (e.g., without a feasible project plan) or pre-requisite study/requirement(s) not fulfilled.

Note that a supervisor can set pre-requisite study/requirements for his/her student such as studying for some e-learning materials related to the Capstone Project. A student cannot proceed with his/her project without getting a "Pass" grade for the project proposal.

### 9.1.2 Interim Assessment

Interim assessment uses the following rubric for project assessment:

	%	A+ (4.3) / A (4.0) / A- (3.7)	B+ (3.3) / B (3.0) / B- (2.7)	C+ (2.3) / C (2.0) / C- (1.7)	D+ (1.3) / D (1.0)	F (0.0)
<b>Background and Related Work (PILO 6)</b>	25%	Excellent background, and comprehensive references with complete review and in-depth analysis.	Clear background with most relevant references and good overview and analysis.	Basic relevant background with sufficient references and basic overview.	Barely relevant background and minimal references with brief review and obvious deficiencies.	Irrelevant background with insufficient references and many errors and omissions.
<b>Problem Definition and Objectives</b>	15%	Very well-defined and motivated problem(s) with clear and attainable objective(s).	Clear problem(s) and objective(s) with suitable scope.	Acceptable problem(s) and objective(s) with suitable scope but room for improvement.	Unclear problem(s) and objective(s) with obvious deficiencies (e.g., unclear scope).	Unacceptable problem(s) and objective(s) with many deficiencies.
<b>Design/ Methodology, Critical Thinking and Preliminary Result (PILO 4)</b>	25%	Thorough design/ methodology, academically rigorous and excellent critical thinking (e.g., considering different alternatives). Excellent preliminary result based on solid work.	Good design/ methodology and good critical thinking with minor deficiencies. Good preliminary result available (e.g., for demonstrating the feasibility).	Basic design/ methodology and basic critical thinking with room for improvement. Sufficient preliminary result available but with some deficiencies.	Weak design/ methodology and weak critical thinking with obvious deficiencies. Barely sufficient preliminary result (e.g., very little work).	Poor design/ methodology and lack of critical thinking with many deficiencies. Little or no preliminary result.

	%	A+ (4.3) / A (4.0) / A- (3.7)	B+ (3.3) / B (3.0) / B- (2.7)	C+ (2.3) / C (2.0) / C- (1.7)	D+ (1.3) / D (1.0)	F (0.0)
<b>Report Writing (PILO 1)</b>	15%	Very well-written and well-structured with fluent English, and very clear discussion and explanation.	Well-written and well-structured with clear discussion and explanation but minor deficiencies.	Readable and structured but with room for improvement in some aspects.	Barely readable and structured with obvious deficiencies.	Unreadable with many deficiencies. No interim report submission
<b>Presentation (PILO 1)</b>	15%	Comprehensive and very clear logical presentation showing in-depth understanding.	Good, easy to follow presentation showing good understanding with minor deficiencies.	Basic presentation showing basic understanding with acceptable deficiencies..	Weak presentation showing weak understanding with major deficiencies.	Poor presentation showing little understanding. No presentation file or video.
<b>Project Management and Meeting Notes (at least 4 between September and December) **</b>	5%	Frequent meetings with excellent preparation and self-initiative. Excellent meeting notes with very clear discussion and concrete action points. Project conducted according to a very well-defined plan.	Regular meetings with good preparation. Good meeting notes with clear discussion and action points but minor deficiencies. Project conducted according to a clear plan.	Sufficient meetings with satisfactory preparation. Satisfactory meeting notes with room for improvement. Project conducted according to an acceptable plan.	Barely sufficient meetings with weak preparation. Weak meeting notes with unclear points. Project conducted according to a barely acceptable plan with some deficiencies.	Insufficient meetings with poor preparation. Unclear meeting notes. Poor project management with many deficiencies.

Note: PILO - Programme's Intended Learning Outcome

Remarks: \*\* Project Management and Meeting Notes will be evaluated only by supervisors.

### 9.1.3 Final Assessment

Final assessment uses the following rubric for project assessment:

	%	A+ (4.3) / A (4.0) / A- (3.7)	B+ (3.3) / B (3.0) / B- (2.7)	C+ (2.3) / C (2.0) / C- (1.7)	D+ (1.3) / D (1.0)	F (0.0)
<b>Background and Related Work (PILO 6)</b>	5%	Excellent background, and comprehensive references with complete review and in-depth analysis.	Clear background with most relevant references and good overview and analysis.	Basic relevant background with sufficient references and basic overview.	Barely relevant background and minimal references with brief review and obvious deficiencies.	Irrelevant background with insufficient references and many errors and omissions.
<b>Problem Definition and Objectives</b>	5%	Very well-defined and motivated problem(s) with clear and attainable objective(s).	Clear problem(s) and objective(s) with suitable scope.	Acceptable problem(s) and objective(s) with suitable scope but room for improvement.	Unclear problem(s) and objective(s) with obvious deficiencies (e.g., unclear scope).	Unacceptable problem(s) and objective(s) with many deficiencies.
<b>Design/ Methodology and Critical Thinking (PILO 4)</b>	15%	Thorough design/ methodology, academically rigorous and excellent critical	Good design/ methodology and good critical thinking with	Basic design/ methodology and basic critical thinking with	Weak design/ methodology and weak critical thinking with	Poor design/ methodology and lack of critical thinking with

	%	A+ (4.3) / A (4.0) / A- (3.7)	B+ (3.3) / B (3.0) / B- (2.7)	C+ (2.3) / C (2.0) / C- (1.7)	D+ (1.3) / D (1.0)	F (0.0)
		thinking (e.g., considering different alternatives).	minor deficiencies.	room for improvement.	obvious deficiencies.	many deficiencies.
<b>Problem Solving, Implementation and Evaluation (PILO 5)</b>	45%	Problem solved optimally and in a comprehensive manner (e.g., innovative or complex approach) with complete implementation and evaluation.	Problem solved by good techniques (e.g., overcoming difficult problems) with almost complete implementation and evaluation.	Problem solved with basic/standard technique (e.g., overcoming standard problems) with basic implementation and evaluation.	Problem barely solved with obvious deficiencies, and little implementation and evaluation.	Very little problem solving, implementation and evaluation with many deficiencies.
<b>Report Writing (PILO 1)</b>	10%	Very well-written and well-structured with fluent English, and very clear discussion and explanation.	Well-written and well-structured with clear discussion and explanation but minor deficiencies.	Readable and structured but with room for improvement in some aspects.	Barely readable and structured with obvious deficiencies.	Unreadable with many deficiencies.
<b>Presentation (PILO 1)</b>	10%	Comprehensive and very clear logical presentation showing in-depth understanding. Excellent response to all questions.	Good, easy to follow presentation showing good understanding with minor deficiencies. Good response to major questions.	Basic presentation showing basic understanding with acceptable deficiencies. Major questions answered.	Weak presentation showing weak understanding with major deficiencies. Questions answered unsatisfactorily.	Poor presentation showing little understanding. Poor response to questions. No presentation file.
<b>Project Management and Meeting Notes (at least 4 between January and April) **</b>	5%	Frequent meetings with excellent preparation and self-initiative. Excellent meeting notes with very clear discussion and concrete action points. Project conducted according to a very well-defined plan.	Regular meetings with good preparation. Good meeting notes with clear discussion and action points but minor deficiencies. Project conducted according to a clear plan.	Sufficient meetings with satisfactory preparation. Satisfactory meeting notes with room for improvement. Project conducted according to an acceptable plan.	Barely sufficient meetings with weak preparation. Weak meeting notes with unclear points. Project conducted according to a barely acceptable plan with some deficiencies.	Insufficient meetings with poor preparation. Unclear or no meeting notes. Poor project management with many deficiencies.
<b>One-page Project Summary (IEEE paper format)</b>	5%	Very well-written and well-structured with fluent English, and very clear and concise summary.	Well-written and well-structured with clear summary but minor deficiencies.	Readable and structured but with room for improvement in some aspects.	Barely readable and structured with obvious deficiencies.	Unreadable with many deficiencies. More than one page (e.g., one page plus one line in Page 2).

Note: PILO - Programme's Intended Learning Outcome

Remarks: \*\* Project Management and Meeting Notes will be evaluated only by supervisors.

Students will also be assessed on the extent to which they have accomplished their project objectives as stated in the project proposal. The degree of difficulty and originality of the project objectives will also be considered when assessment is being made. In general, with



everything being equal, projects meeting more difficult objectives and demonstrating creativity will be awarded higher grades than those which meet easier objectives and show no original ideas. So it is important to work out with your project supervisor a set of realistic and challenging objectives for your project in the planning stage.

## 9.2 Penalty

For fairness and holistic assessment, students are expected to fulfil all assessment requirements. A failure grade will be given for the whole project if a student fails to fulfil key assessment requirements (e.g., no final report submission or absent from final presentation). Late submission will not be accepted unless with exceptional approval or under special circumstances (e.g., health reasons). Otherwise, one letter grade will be deducted from your final grade for each day of late submission. For late assessment, please submit your request together with supporting documents (e.g. medical certificate) to the General Office via email ([comp.capstone@polyu.edu.hk](mailto:comp.capstone@polyu.edu.hk)) within 5 working days.

### Group Project and Use of Other Works

For group projects, there should be clearly defined individual components for the involved students. The work distribution should be clearly defined in the reports. Furthermore, each student should only include his/her individual work in the main sections of the report and presentation. If required, any work of other students can be included in an appendix for reference purposes. In addition, in the individual report, the student should 1) clearly specify that his/her work is a part of a group project; 2) list all group members; and 3) summarize each member's individual contribution in the group project in the Declaration of Individual Contribution in Group Project (Appendix D).

Similarly, if a student's work is based on other student's work (e.g., previous capstone project work or work of a research student), he/she should acknowledge previous work and clearly specify the student's individual contribution in the report. The previous works should be included in an appendix for reference purposes.

Students who fail to follow this requirement may be downgraded on a case-by-case basis or given a "Fail" grade for serious cases.

## Part 10: Structure and Format Requirements of Proposal and Reports

### 10.1 Proposal

#### 10.1.1 Sample Structure of the Proposal

The following is a sample structure of a Capstone Project proposal. Please consult your supervisor when preparing your proposal.

##### Cover Page

The cover page normally includes:

1. Title of the project;
2. Student ID no. of the student;
3. Programme-stream;
4. Name of project supervisor;
5. Date, etc.

##### Table of Content

This page lists the content of the proposal. It is in the form of section headings followed by the corresponding page numbers.

##### Background and Problem Statement

Before you start your project, you must understand the background and identify the problem to be solved. You are expected to define the problem clearly and accurately, and describe explicitly the context, motivation, characteristics, and significance of the problem to be solved.

##### Objectives and Outcome

An objective is a specific, measurable outcome of your project. This section therefore describes what your project is going to achieve and the expected outcome. Try to define the scope of your project accurately. The objective could also be devising and evaluating new approaches to solve a problem. Given the specified objectives, you may want to highlight the contribution to be made by your project in the related area.

##### Project Methodology

This section estimates the possibility of being able to achieve your objectives within the limited period of time, by *outlining the approach and techniques* to be employed. To do so, you may need to divide the problem into several smaller problems, or divide your project into several stages. You should describe your planned tasks for solving the problem and the methods to be used in each of the tasks. In writing this section, you may need to review and compare existing work in related areas. Therefore, you may include a subsection of literature review.

##### Project Schedule

You need to propose a plan and a timetable to carry out the project. A good schedule will set out precisely *what* you are going to do, and *when* you are going to do it. In the plan,

you should write the milestones you expect to achieve and the conclusions you expect to reach along the way. Define the milestones with respect to your schedule.

#### Resources Estimation

Estimate hardware and software resources required for carrying out your project.

#### References/Bibliography

List papers, articles, and perhaps online materials related to your project that you find in literature review or tool demonstrations. Please use a *uniform format* for all the references, e.g., Author's last name, first name, followed by paper title, publication source, date, page numbers, etc. Also please make sure you *have cited* these references in your proposal. You may refer to the style of citation at the reference section of research papers that you are reading for examples.

### **10.1.2 Formatting Requirements of the Proposal**

All sections of the proposal, including references, must conform to the following guidelines:

- Font Style: Use one of these typefaces: Arial or Times New Roman at a font size of 12 point.

*NOTE*: Font sizes down to 10 point may be used for mathematical formulas or equations, figure, table, scheme or diagram captions and when using a Symbol font to insert Greek letters or special characters.

- Line Spacing: The text of the document should be at least 1.5 spacing and no more than double line-spaced.
- Margin: Left margin 25mm. Top, bottom and right margins 20mm.
- Layout: One column, single-sided or double-sided A4.
- Pagination: The report must carry sequential pagination throughout, including appendices. The page number should be on the top right margin of each page. The title page is counted in the numbering, but bears no page number.
- Length: The length of the proposal should normally be 5 to 10 pages including everything. Remember, quantity is no substitute for quality.

## **10.2 Interim/Final Report**

### **10.2.1 Organization of the Reports**

The following is an example illustrating the organization of your interim/final report.

1. Cover page (Appendix A)
2. Abstract
3. Table of contents
4. List of tables and figures
5. Main body of text
6. References/Bibliography
7. Appendices (if any)

Each chapter should start with a new page and be clearly divided into sections and sub-sections with appropriate headings and numberings.

The final report should be a document of high professional standard. It should be self-standing and coherent, well organized and presentable. Materials from previous deliverables (e.g., the project proposal and interim report) should be re-structured and integrated in order to ensure that the final report is a complete and readable document.

Although there are no specific requirements on the contents of the main body of the text, the report should contain a clear and explicit statement of the problem and the objectives of the project in its beginning chapters. To let the examiners better assess your work, your report should include a section on what has been achieved (your contributions). Please consult with your supervisor for the report requirements.

### **10.2.2 Cover and Formatting Requirements of the Reports**

The cover page should include:

1. Title of the project;
2. Student ID no. of the student;
3. Programme stream;
4. Name of project supervisor;
5. Date

\*As students' reports will be kept by the Department for demonstration/ or sharing to other students to enhance their learning, please do not put your name and other personal particulars on the report, except the cover page.

All sections of the report, including references, must conform to the following guidelines:

- **Font Style:** Use one of these typefaces: Arial or Times New Roman at a font size of 12 point.

*NOTE:* Font sizes down to 10 point may be used for mathematical formulas or equations, figure, table, scheme or diagram captions and when using a Symbol font to insert Greek letters or special characters.

- Line Spacing: The text of the document should be at least 1.5 spacing and no more than double line-spaced.
- Margin: Left margin 25mm. Top, bottom and right margins 20mm.
- Layout: One column, single-sided or double-sided A4.
- Pagination: The report must carry sequential pagination throughout, including appendices. The page number should be on the top right margin of each page. The title page is counted in the numbering, but bears no page number.
- Length: The length of the report should normally not exceed 50 pages excluding preamble and appendices. Remember, quantity is no substitute for quality.

### **10.2.3 Submission Requirements of the Reports**

The soft copy of the report should follow a standard format and has a limit in its size, which is set as follows:

1. In PDF format; and
2. The maximum file size should be 50MB. If your report has a size larger than 50MB, please submit your file in PDF format via a CD-ROM to the General Office (PQ806) within the submission schedule. Please mark your student ID no. and programme-stream code on the cover of the CD-ROM.

# Appendix

A	Report Cover Sheet (Sample)
B	Declaration of Originality
C	Project Title Final Change Form
D	Declaration of Individual Contribution in Group Project

*Remarks: Files in MS Word format are available in COMP Intranet.*

**A. Report Cover Sheet (Sample)**

**The Hong Kong Polytechnic University  
Department of Computing**

**COMP4913 Capstone Project  
Report (Interim / Final\*)**

**Type Your Project Title Here**

Student Name:	Chan Tai Man
Student ID No.:	20xxxxxxD
Programme-Stream Code:	61xxx-xxx
Supervisor:	Dr John Chan
Co-Examiner:	Dr Amy Wong
2 <sup>nd</sup> Assessor:	Prof. Paul Lau
Submission Date:	xx January 2024

*\*Please delete as appropriate.*

## B. Declaration of Originality

**The Hong Kong Polytechnic University  
Department of Computing**

**COMP4913 Capstone Project**

Student Name : \_\_\_\_\_

Student ID No. : \_\_\_\_\_

Programme-Stream Code : \_\_\_\_\_

Project Title : \_\_\_\_\_

Supervisor Name : \_\_\_\_\_

\*\*\*\*\*

**DECLARATION OF ORIGINALITY**

Except where reference is made in the text of this Capstone Project Report, I declare that this report contains no material published elsewhere or extracted in whole or in part from any works or assignments presented by me or any other parties for another subject. In addition, it has not been submitted for the award of any other degree or diploma in any other tertiary institution.

No other person's work has been used without due acknowledgement in the main text of the Report.

I fully understand that any discrepancy from the above statements will constitute a case of plagiarism and be subject to severe academic penalties that may lead to deregistration from the programme. The department reserves the right to check the paper and electronic submissions of the Report via various mechanisms, such as Turnitin.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



### C. Project Title Final Change Form

**The Hong Kong Polytechnic University**  
**Department of Computing**

**COMP4913 Capstone Project**

#### **PROJECT TITLE FINAL CHANGE FORM**

Please fill in the form and submit the signed form to General Office right after the final presentation.

Student Name : \_\_\_\_\_

Student ID No. : \_\_\_\_\_

Programme-Stream Code : \_\_\_\_\_

Original Project Title : \_\_\_\_\_

\_\_\_\_\_

Revised Project Title : \_\_\_\_\_

\_\_\_\_\_

Supervisor Name : \_\_\_\_\_

Approved by Supervisor : \_\_\_\_\_

Date : \_\_\_\_\_

**D. Declaration of Individual Contribution in Group Project**

**The Hong Kong Polytechnic University  
Department of Computing**

**COMP4913 Capstone Project**

**DECLARATION OF INDIVIDUAL CONTRIBUTION IN GROUP PROJECT**

Student Name : \_\_\_\_\_  
Student ID No. : \_\_\_\_\_  
Programme-Stream Code : \_\_\_\_\_  
Project Title : \_\_\_\_\_  
Supervisor Name : \_\_\_\_\_

\*\*\*\*\*

☐ I declare that this work is not a part of a group project.

☐ I declare that this work is a part of a group project including the following members:

Student Name: \_\_\_\_\_ (Student ID No.: \_\_\_\_\_ )

Student Name: \_\_\_\_\_ (Student ID No.: \_\_\_\_\_ )

Student Name: \_\_\_\_\_ (Student ID No.: \_\_\_\_\_ )

Each member's individual contribution in the group project can be summarized as follows.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## Guidelines for Students on the Use of Generative Artificial Intelligence

(Effective from 2022/23 Summer Term)

### PolyU's stance

PolyU takes an open and forward-looking stance on the use of generative artificial intelligence (GenAI) tools (such as ChatGPT) as a positive and creative force in education, and the incorporation of such use in innovative learning, teaching, and assessment practices. While embracing the use of new technology in education, PolyU upholds the principle that students must adhere to high standards of academic integrity in all forms of assessments. The Student Code of Conduct and the policy on academic integrity apply to the use of GenAI in student work.

### Respect your own work and the work of others

In accordance with the above stance, the University emphasises that:

- students are accountable for their own work; and
- the use of GenAI (if permitted) in student work should be properly acknowledged.

The following guidelines apply to all subjects and levels of assessment:

1. The use of GenAI tools may or may not be allowed in a subject, depending on the nature of the subject and the objectives of the assessment tasks. You should refer to your subject and assessment documents to check if you may use GenAI tools in your assessments.
2. All the work you submit for assessment should be **YOUR OWN ORIGINAL** work. Asking GenAI to do the assignment for you and submitting the work generated by GenAI, in part or in whole, as your own (even in paraphrased form) constitute an act of academic dishonesty; it is no different from asking another person to write your assignment or claiming others' ideas as your own.
3. For assessments that permit the use of GenAI tools, you may be required to declare the use of such tools and how they have been used in a form similar to the following:

*I/We declare that Generative AI tools have been used to prepare the submitted work. The Generative AI tools used and the manner in which they were used are as follows:*

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4. If you use AI-generated materials in your work, you must reference them in accordance with accepted academic conventions (e.g. APA or MLA styles).
5. For assessments where any use of AI-generated materials is not permitted, students who are found to have submitted AI-generated materials as their own work or part of their work constitute an act of academic dishonesty. Students who are found committing academic dishonesty will face disciplinary actions.

### Reminders for using Generative AI

GenAI tools can be beneficial, but there are inherent risks too. You should be mindful of the following:

## *Using Generative AI critically*

1. GenAI tools are language machines that predict the next plausible word or section of code based on patterns learned from large datasets. They are **not** knowledge databases, and may produce codes that have security flaws, bugs, or use illegal libraries.
2. The datasets that GenAI models learn from may be flawed, biased, or contain inaccuracies and limitations. The models are only as up-to-date as the data they were trained on, and may not reflect current events or trends.
3. GenAI generated text is not always factually correct, and may contain fake citations and references. It may also include **offensive material** or **hidden plagiarism**, using words and ideas from human authors without proper referencing.

## *Using Generative AI ethically*

1. You must acknowledge where GenAI tools have been used in an assessment according to accepted academic conventions. You may make reference to the following:
  - APA style: <https://apastyle.apa.org/blog/how-to-cite-chatgpt>
  - MLA style: <https://style.mla.org/citing-generative-ai/>
  - IEEE style: <https://libraryguides.vu.edu.au/ieeereferencing/generativeAI>
  - Harvard style: [https://www.citewrite.qut.edu.au/cite/examples/harvard/harvard\\_internet\\_ai.html](https://www.citewrite.qut.edu.au/cite/examples/harvard/harvard_internet_ai.html)
  - Chicago style: <https://www.chicagomanualofstyle.org/qanda/data/faq/topics/Documentation/faq0422.html>
  - Vancouver style: <https://guides.library.uwa.edu.au/vancouver/GenAI>
2. GenAI systems are amoral and do not know that generating offensive, inaccurate, or misleading content is wrong.
3. There are also risks of **copyright infringement** when using GenAI to generate images or other copyrighted materials.

## *Using Generative AI wisely*

### **DO's**

- ✓ Use GenAI for brainstorming
- ✓ Check for factual accuracy of AI-generated content
- ✓ Use AI-generated content in conjunction with other sources to ensure your work is reliable and well-informed
- ✓ Include any GenAI assistance in your reference list

### **DON'Ts**

- ✗ Do NOT rely solely on AI-generated content as the source of information
- ✗ Do NOT ask GenAI software to write your essays
- ✗ Do NOT input any personal details or confidential information when using GenAI tools

### References:

1. The University of Edinburgh. (2023). *Guidance for students on the use of Generative AI (such as ChatGPT)* <https://www.ed.ac.uk/sites/default/files/atoms/files/universityguidanceforstudentsonworkingwithgenerativeai.pdf>
2. Deakin University. (2023). *Student guide to using generative AI* <https://www.deakin.edu.au/students/study-support/resources-and-referencing/academic-skills/student-guide-to-using-generative-ai>