HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

Department of Civil and Environmental Engineering

CIVL 4910/4920 Civil and Environmental Engineering Final Year Project/Thesis 2025/26

IMPORTANT NOTICE

Important Dates

| Event | Date |
|--|--|
| Submission of Interim Report | 12 noon – 29 December 2025 (Mon) |
| Submission of Interim Presentation Video | 12 noon – 27 March 2026 (Fri) |
| Submission of Examination Copy of Final Report | 12 noon – 4 May 2026 (Mon) |
| Oral Presentation | 1 June 2026 (Mon) to 2 June 2026 (Tue) |
| Submission of Final Report | 12 noon – 5 June 2026 (Fri) |

Report Submission Requirements

- 1. Students are required to submit individual reports (Interim Report, Examination Copy of Final Report and Final Report) and Interim Presentation Video even if you have a group project/thesis;
- 2. For Interim Report, Interim Presentation Video and Examination Copy of Final Report, students should submit:
 - (1) one soft copy to the Canvas FYP/FYT course website;
- 3. For Final Report, students should submit:
 - (1) one soft copy (in pdf format) online to the Canvas FYP/FYT course website, and
 - (2) one bound hard copy of the report to the Department Administrative Office
- 4. All reports should be submitted on or before the dates specified in the above table.

1. THE PROJECT/THESIS

The final year project/thesis is a synthesis of what you have learnt in the civil engineering/civil and environmental engineering program.

You are expected to spend a minimum of one day per week during the fall semester and one and a half days per week during the spring semester working on the project/thesis. This is, however, a minimum; you are advised to spend much more time on the project/thesis than indicated here.

2. AIMS

This program requirement gives you a chance to undertake a project/thesis on your own, produce a self-contained piece of work, and write it up for others to assess and use. In writing up the report, you will need to obtain advice, information and assistance from others, for example your project/thesis supervisor, technical officers responsible for laboratories, and computing staff.

Project/thesis work is a good introduction to work in industry and/or research. It is also an important indicator of how well you can use what you have learnt throughout your courses. The successful completion of the project/thesis plays an important part in the final grading of degree.

Intended Learning Outcomes

On successful completion of the final year project/thesis, students will be able to:

- Conceive, formulate and solve civil engineering problems via in-depth analyses and/or experiments.
- Apply previously learned engineering and non-engineering knowledge and skills.
- Acquire new in-depth knowledge relevant to the problems and recognize the importance of self-learning.
- Write and communicate effectively in English.

3. CHOICE OF TOPIC

Each student will be given a Topic Selection Form to fill in their preferences for projects/theses. Students should spend adequate time to study the outline of each topic and may approach the appropriate project/thesis supervisors for clarification when necessary. The project/thesis selection is normally conducted in May and the Department will use email/notice to inform students of the selection procedure and the schedule for submitting the completed Topic Selection Form.

4. PROJECT/THESIS ALLOCATION

Project/thesis allocation is primarily based on the CGA of the students as at the end of fall semester or winter semester of the third year of study. If it happens that a faculty member would like to pre-select students, the faculty may indicate to the Undergraduate Studies Committee their preferences ahead of time. No pre-selection will be accepted once the topics are announced to all students.

Once the decision is made, it is final. No reallocation will be allowed and unless under very special circumstances, students will be strictly prohibited from changing project/thesis supervisor.

5. MONITORING PROJECT/THESIS PROGRESS

In order to effectively monitor the progress of the final year project/thesis, all students are required to maintain regular communication with their assigned FYP supervisors to report progress, and submit formative and summative assessments according to the specified submission schedule.

5.1 Interim Report

It is expected that the research problem has been formulated (even if changes are to come in the future) and concrete goals/objectives have been set by this stage. Students should have completed or be close to completing any required learning materials and have a clear idea of what the project/thesis is about, what needs to be done, and how best to proceed and achieve goals.

Required sections for the interim report:

- i) Context of research research purpose, topic, background that informs research, research question, goals, literature review, etc.
- ii) Research method design of research, hypotheses, modeling method, algorithms, samples, tests, equipment, apparatus, methodology, procedures, process, precautions, plans (A, B, C, backups), steps. phases. etc.
- iii) Progress report timeline of research, allocation of tasks, progress, future plan, assessment on performance so far, possible room for improvement

Submission Requirements

(1) One soft copy to the Canvas FYP/FYT course website

Submission Deadline: 12 noon – 29 December 2025 (Mon)

Note: A well-written Interim Report will benefit the student as most job interviews will be conducted in February and March and employers may ask questions regarding the final year project/thesis.

5.2 Interim Presentation Video

This formative assessment allows students to practice for their final presentations. All students must submit an individual video, regardless of whether their project is individual or group-based. The video should be 3 minutes long and include an introduction, methods, and preliminary results. All visual aids developed for the

presentation should be submitted alongside the video. Grades will be awarded based on: 1) appearance and organization of the materials; 2) clarity in presenting the importance of the topic and results.

Submission Requirements

Students should submit:

(1) One soft copy to the Canvas FYP/FYT course website

Submission Deadline: 12 noon – 27 March 2026 (Fri)

5.3 Examination Copy of Final Report

A full project/thesis report is to be submitted individually. Students are encouraged to complete their Examination Copy of Final Report well ahead of 4 May 2026, so that their supervisor can go through it and give feedback. The Final Year Project/Thesis will be graded mainly on the Examination Copy of Final Report. In addition, top Final Year Projects/Theses may be selected based on the Examination Copy of Final Report and displayed in a poster session, and awards may be given.

Submission Requirements

Students should submit:

(1) One soft copy to the Canvas FYP/FYT course website

Submission Deadline: 12 noon – 4 May 2026 (Mon)

5.4 Final Report

The Final Report incorporates all revisions considering comments received during the project/thesis presentation.

Submission Requirements

Students should submit:

- (1) One hard copy to the Department Administrative Office, and
- (2) One soft copy online to the Canvas FYP/FYT course website.

Note: Students may be required to submit more hard copies if their project/thesis has been sponsored by the government or the industry.

Submission Deadline: 12 noon – 5 June 2026 (Fri)

Note: A final grade will only be released upon receipt of the Final Report.

6. SCHEDULING YOUR PROJECT/THESIS

It is important to work effectively with your project/thesis supervisor. Different supervisors and different students can arrive at different but effective working arrangements, but it is generally recommended to have regular meetings, especially at an early stage when it is important to check that what you are doing is indeed what is required.

If you wish to contact your supervisor outside a regular meeting time and you fail to make contact, call again; sending an email or just leaving a note on his/her office door may work too. Consultations are often much more effective if they are prearranged. If equipment is to be constructed or if testing is to be done, please contact the appropriate laboratory personnel to arrange a suitable schedule. Laboratory time is always very limited, so you should plan your experiments well and conduct them efficiently. You may find further project/thesis work to do (e.g. computer programming, literature survey or preliminary writing up) during the preparation of specimens and/or

You should keep careful notes and write up as you go. To note at a later time that you had a reference on an item and now you don't know/remember what it was is frustrating. Regular note taking and correctly recording all details of references and work can save a great deal of time and simplify the final write-up.

Producing the final report is itself a major task and **you should allow plenty of time for the process**. It must be remembered that the resulting document forms the primary basis for the final project/thesis assessment. It goes without saying that you should be consulting your supervisor regularly as you produce the report.

The writing-up process often helps clarify the significance of your work and may well suggest some additional investigations you would like to pursue (e.g. a short test run to check an unusual result). This is another reason why it should not be rushed. It is important to have your examination copy ready well before the submission date; you should, however, discuss it with your supervisor before finalizing it.

Turning in your final report requires considerable organization. Typing, producing figures, printing, binding, even uploading and sending **all take longer than you think**, not to mention computers, printers, photocopiers and connection to the Internet can all break down, and they often do. Allow at least a week to proofread (every word and symbol). This is normal and you are expected to include reasonable contingency allowances for possible problems of this kind when planning your report production.

The Final Report must be submitted by 12 noon – 5 June 2026 (Fri).

Those depending on computers or apparatus should aim to have their research work finished before the end of week 8, Spring Semester. Avoid being caught in the heavily loaded second half of the semester.

7. SUBMISSION

equipment.

It is very important to submit all reports on time. To be fair to those students who do so, those who submit late <u>without prior permission from the Undergraduate Studies Committee</u> will receive a penalty of 1% deduction per each day late from the total mark.

Permission to submit <u>any of the reports</u> late is only granted under exceptional circumstances for reasons beyond the student's control (e.g. prolonged well documented sickness or major workshop/laboratory delays where the student has programmed his work very early). **This permission can only be granted by the Undergraduate Studies Committee, not by your project/thesis supervisor.**

8. ORAL PRESENTATION

Towards the end of spring semester, you will be required to make a presentation on your project/thesis to a panel and other students. This is a formal opportunity to report to your project/thesis supervisor, second reader and peers on your project/thesis.

A fixed time will be scheduled for each project/thesis as follows:

| | Presentation | Question & Answer |
|-------------------------------|--------------|------------------------------|
| 1 student per project/thesis | 12 min | 8 min |
| 2 students per project/thesis | 20 min | 15 min |
| 3 students per project/thesis | 28 min | 22 min |
| 4 students per project/thesis | 35 min | 30 min |

Remember by now you should be an expert in your subject and you should present the material in a manner which can be understood by all at your presentation. Go at a steady pace and practice the right emphasis and timing. Practice will give you confidence and remove some of your nervousness.

9. ASSESSMENT

Assessment will be based on project/thesis reports and oral presentation. The deliverables and presentation are evaluated by your project/thesis supervisor, panel members and the communication tutor in four areas. (Appropriate rubrics will be used for all assessments.)

- (i) Motivation and Task Management (PO10): weighted 20%
- (ii) Knowledge Acquisition, Critical Thinking and Analysis (PO3/4, PO5, PO8): weighted 40%
- (iii) Communication Report (PO9): weighted 25%
- (iv) Communication Presentation (PO9): weighted 15%

The assessment will be governed by the rubrics as shown at the end of this document.

| Areas of Assessment | Supervisor | Second Reader | Chairperson | Communication Tutor | Weighting |
|---|------------|------------------|-------------|------------------------|-----------|
| 1. Motivation and Task Management (PO10) | | | | | 0.20 |

| 2. Knowledge Acquisition, | | | |
|----------------------------|--|------|------|
| Critical Thinking and | | | 0.40 |
| Analysis (PO3/4, PO5, PO8) | | | |
| 3. Communication —Report | | | 0.25 |
| (PO9) | | | 0.23 |
| 4. Communication — | | | 0.15 |
| Presentation (PO9) | | | 0.13 |

10. IMPORTANCE OF WRITTEN DOCUMENT

A poorly written report will earn you a low grade regardless of its technical content or merit, as it is very difficult for the reader to appreciate the technical aspect of your project/thesis if the report fails to convey that aspect because its writing is poor. You are encouraged to seek help from the communication tutor especially in the Fall semester and early in the Spring semester. It is too late to seek help just before the final submission. To get an idea of what your reader will look for when grading your reports, please read the attached *Specifications and Guideline for Production and Submission of Reports* very carefully.

SPECIFICATIONS AND GUIDELINE FOR PRODUCTION AND SUBMISSION OF REPORTS

I. Specifications

- (i) Paper must be A4 size (210 x 297 mm).
- (ii) Reports must be typed, 1.5-spacing, double-sided.
- (iii) For the Final Report, margins must not be less than 25mm at the left edge, 20mm at the right edge before binding, 25mm at the upper edge, and 20mm at the lower edge. Interim reports need not be bound.
- (iv) Final Reports must be bound with an approved cover. Suitable covers can be obtained from the Departmental General Office. The collection date will be notified by email.
- (v) Reports must include a standard **cover page** which will be provided by the Departmental General Office through email in due course.
- (vi) All sheets must be numbered (using word processor, <u>not hand written</u>). The main body of the report must be numbered consecutively from beginning to end. Other sections (for example Abstract, Table of Contents, List of Figures, List of Symbols and Appendices) must have their own logical numbering system.
- (vii) Formulae should be properly formatted and numbered within each Chapter.
- (viii) Tables, graphs, diagrams and photographs should be <u>inserted at the end of each chapter</u> and properly labeled. References should be placed right after the chapter of conclusions.
- (ix) Computer programs and prints of engineering drawings should be bound into the report.
- (x) The author of the report is responsible for proof-reading the typescript and having corrections made as necessary.

II. Guideline

- (i) In preparing your report ask yourself, would another person be able to understand my work from the description given.
- (ii) The level of background information included in the report should be such that it can be understood by graduating students. Do not assume that everybody is a specialist in your field.
- (iii) Distinguish important aspects of the report from mere details. Remember that some readers of the report (other than the examiners) may not have time to read it in detail and the main points should become apparent on a quick reading.
- (iv) **Do not assume that a thick report is necessarily good**. A brief, concise report is more difficult to write than a verbose one.

- (v) The report should include a clear statement of aim(s) and objectives, and later the conclusions drawn from the work.
- (vi) There should be a clear delineation of the contribution of the report, in comparison with the state of the art before the report was undertaken. A clear statement of the contribution of the student, supervisor and any others should be made.
- (vii) Diagram captions should be reasonably self-explanatory and describe the diagram and the main conclusions to be drawn from it. It should be possible to get a sense of the work by quickly scanning through the diagrams and the conclusions.
- (viii) Any computer programs written by the student, with clear comments included in the listings, explaining the function of the program, should appear in the Appendices.
- (ix) Other computer programs used should have their source and identity specified in the report.
- (xi) All references should be fully listed in a consistent manner and referred to at least once in the text. A separate bibliography of relevant literature is also useful.
- (xii) Photographs should be used when appropriate.
- (xiii) If appropriate, a list of symbols and a glossary of special words should appear at the beginning of the report, immediately prior to the introduction.
- (xiv) Diagrams taken from other sources must be acknowledged and documented.
- (xiv) Mathematical proofs or derivations of equations which are simply reproductions of derivations from the literature should not be included. A few major steps in the derivation can be stated in order to permit a proper understanding of the logical basis of the equation or proof, but not a detailed step derivation. Note that this refers only to derivations reproduced from the literature, not the student's own work.
- (xv) <u>Details of routine or well-known experimental measurement techniques should not be included</u>, although a summary may be given in the main body of the report. Where extensive details are considered necessary, they may be included in the appendices.

Department of Civil and Environmental Engineering

HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

Department of Civil and Environmental Engineering

CIVL 4910/4920 Final Year Project/Thesis Assessment Report

| S | Student Name Student ID Number | | | | | | _ | | |
|----------|---|----------------|---------------|------------------|---------------|------------------------|-----------|-----------|-------------------|
| P | roject/thesis Title | e | | | | | | | |
| A | ssessment Pane | l | | | | | | | |
| C | hairperson: | | | | | | | | _ |
| S | upervisor: | | | | | | | | <u> </u> |
| S | econd Reader: | | | Commun | nication Tut | or: | | | _ |
| A | ssessment (plea | se attach rub | orics) | | | | | | |
| | Areas of Assess | sment | Supervisor | Second Reader | Chairperson | Communication Tutor | Average | Weight | Weighted Score |
| . Mot | ivation and Task Man | agement (PO10) | | | | | | 0.20 | |
| | wledge Acquisition, C Analysis (PO3/4, PO5 | | | | | | | 0.40 | |
| . Con | nmunication — Repor | t (PO9) | | | | | | 0.25* | |
| . Con | Communication — Presentation (PO9) | | | 0.15 | | | | | |
| | | | | | | To | tal Weigh | ted Score | |
| F | Chairperson's o | comment on the | ne grade: | rade devia | tes significa | antly from the | converti | ng table: | - - |
| | | | | | | | | | _ |
| г | | T | l | | erting Tabl | | | | |
| | Weighted Score | [4.00, 3.60] | [3.60, 3.20] | [3.20, 2 | | | 0, 2.00] | [2.00, 1. | 60] |
| - | Letter Grade | A+ | A 51.20.1.007 | A- | | B+ | В 50.50 | B- | |
| ŀ | Weighted Score | [1.60, 1.30] | [1.30, 1.00] | | | 0, 0.50] | [0.50, | | |
| | Letter Grade | C+ | С | C- | | D | F | | |
| Si | gnature of Chair | person | | | _ | Date | | | |

Note: *

10%, 5% and 10% of the total score will be given by Supervisor, Second Reader and Communication Tutor respectively. Weights for Tutorial Classwork, Interim report, Interim Presentation Video and Examination Copy of Final Report are 1:2:2:5.

CIVL4910/4920 Final Year Project/Thesis Assessment Rubrics

| Student Name: | | | | Student ID: | | |
|---|--|--|--|---|---|---|
| | Supervisor: | | Signature: | | Date: | |
| Areas | of Assessment | Poor (0) | Satisfactory (1) | Good (2) | Very Good (3) | Excellent (4) |
| 1. Mo | tivation and Task Mana | agement (PO10) | | | | • |
| Self-n | notivation | No self-motivation Unresponsive to supervisor | Somewhat motivated Frequent supervisor reminders | Reasonably focused and motivated Reminded occasionally | Focused and motivated Almost no reminder | Highly motivated and proactive No reminder |
| Task l | Management | No plan, no task schedulesLittle progress and inadequate results | Some effort in task management Slow progress and basic results | Reasonable plan & task schedulesReasonable progress and results | Good plan & practical schedules Almost all tasks achieved | Effective plan and schedules All tasks achieved/some surpassed |
| 2. Kn | owledge Acquisition, Cr | itical Thinking and Analysis | | | | |
| unders limita | em formulation, standing of assumptions/ tions (AL), and problem- g (PO5) | Shallow conception and formulation Scarce knowledge Poor understanding of AL | Basic conception and formulation Basic understanding of AL Meaningful work initiated and achieved with limited success | Fair conception and formulation Reasonable understanding of AL Meaningful work initiated and achieved with some success | Clear conception and formulation Good understanding of AL Innovative work envisioned and mostly achieved. | Clear conception and creative formulation Innovative work envisioned and achieved |
| Data collection, analysis, interpretation and presentation (PO3 if experiment-based and/or PO4 if IT-based)** | | Inadequate technical skills Trivial analysis and interpretation Obvious/trivial outcomes | Some technical, analytical and interpretive skills Basic outcomes with very limited contributions | Reasonable technical, analytical and interpretive skills Reasonable outcomes with noticeable contributions | Good technical, analytical and interpretive skills Meaningful outcomes with substantial contributions | Superb technical, analytical and interpretive skills Very meaningful outcomes showing innovative contributions |
| Knowledge acquisition and application (PO8) | | Poor understanding of fundamentals No application of basic knowledge and techniques | Basic understanding of fundamentals Limited application of basic knowledge and techniques | Reasonable understanding of fundamentals and new concepts Reasonable application of knowledge and techniques | Good understanding of fundamentals and new concepts Substantial application of knowledge and techniques | Thorough grasp of fundamentals and new concepts Concepts and techniques well integrated and creatively applied |
| 3. Co | mmunication (PO9) | | | | | |
| | Organization | Primitive report layout and poor logicDifficult to understand report | Report quite loose Basically understandable | Report reasonably structuredSome parts out of place | Report thoughtfully laid out Good logic throughout | Report well-structured and logical Very readable |
| Report | Content • Irrelevant work • Some | | Covering some important issues Some irrelevant work Materials casually documented | Covering major issues Little irrelevant work Materials reasonably documented | Covering most important issuesNo irrelevant workMaterial properly documented | Covering all important issues Contents well integrated Materials well documented |
| | • Frequent grammatical problems • Gra | | Grammatical problems tolerable Some parts difficult to understand | Some grammatical problems Many parts generally readable | Few grammatical problemsMost of report comprehensible | Excellent writing, concise, clear and easy to understand |
| | Organization • Loose structure • Many parts difficult to follow • Somewhat identifiable sequence • Some parts difficult to follow | | Information presented logically Sections and sequences clear | Clear structure, content and logicEngaging and easy to follow | Tailored presentation, very logical and very enjoyable | |
| | Effectiveness | | | Reasonable audience engagementMajority of points gotten across | Interactive audience engagement Most points gotten across | Very interactive with audience Messages delivered effectively |
| | Time management | Noticeably exceeding/falling short of time allotted Disorienting tempo | Roughly meeting time, excessively rushed or too slow Fair tempo | Using up allotted time, slightly rushed or delayed Reasonable tempo | • Effective use of time allotted • Good tempo and comfortable flow | Very effective use of time allotted Presentation very well paced and outstanding flow |
| | Handling of questions • Failing/struggling to answer and/or understand rudimentary questions • Addressing some questions • Tending to react to questions | | • Answering some questions with reasonable elaboration | Answering majority of questions with confidence and elaboration | Answering (almost) all questions with good articulation and insights | |
| Indica | ation to letter grades | F/D < 0.70 | C < | 1.60 < | B < 2.80 | < A |