The Hong Kong University of Science and Technology UG Course Syllabus

Report Writing for Final Year Engineering Projects: Computer Science and Engineering Focus

LANG4090 1 credit

Pre-requisites: N/A Co-requisites: N/A

Name of Course Coordinators: Martin Ma

Email of Course Coordinators: lcmartinma@ust.hk

If you have any questions, your first point of contact should be your section instructor. Please find

the email address on Canvas.

Office Hours of Course Coordinators: Available by appointment only.

Course Description

LANG4090 is a one-credit elective course designed for final-year Engineering students undertaking their Final Year Project (FYP). This course develops students' ability to structure and communicate research findings effectively using the conventional language and rhetorical strategies of engineering research writing. By analyzing how engineering researchers communicate across key report sections—from introduction, research questions and literature synthesis to methods, results, and conclusions—students learn to meet the discourse community's expectations and conventions. Through blended learning that combines weekly interactive online lessons, targeted writing practice, and bi-weekly writing workshops, students engage in self-directed learning to produce research writing that directly supports their FYP requirements. The course takes a genre-based and discourse-analytical approach, examining how language, visuals, and organization work together to construct persuasive and coherent research arguments in Computer Science and Engineering contexts.

Key topics:

- Module 1: Writing the Introduction & Research Question, and Using Gen AI to Identify and Organize Relevant Literature on the Research Topic.
- Module 2: Writing the Literature Review; Synthesis, Language & Structuring of Comparing & Contrasting, and Engaging with Sources using Citations.
- Module 3: Writing the Methods Section.
- Module4: Writing the Results and Discussion; Integrating Visuals into Research Writing: Language and Coherence
- Module 5: Writing the Conclusion; Writing the Abstract

Methods of instruction: Online interactive lessons, writing workshops

Intended Learning Outcomes (ILOs)

By the end of this course, students should be able to:

1. Apply knowledge of rhetorical moves and discipline-specific conventions to write texts and use language appropriate for academic contexts, purpose and audiences

- 2. Critically evaluate, synthesize, integrate, and cite sources effectively to support arguments and ideas in the research report
- 3. Organize texts logically and coherently using discipline-specific conventions to communicate ideas effectively
- 4. Integrate data visualizations effectively in research reports
- 5. Critically evaluate peers' writing and reflect on your own work by incorporating feedback from peers, teachers, and GenAI to improve and enhance your writing skills.

Assessment and Grading

This is a Pass/Fail course assessed using criterion-referencing. Students must achieve a passing standard in all assessment components to pass the course (see below).

Assessments

Assessment Task	Contribution to Overall Course grade (%)	Due date
A1: Online interactive	20%	spread through course
lessons	2070	spread tillough course
A2: Workshop participation	20%	spread through course
A3: Writing practice	40%	spread through course
A4: Interim FYP report	10%	Approx. week 3*
A5: Final FYP report	10%	Approx. week 7*

^{*} Specific due dates are posted on Canvas.

Mapping of Course ILOs to Assessment Tasks

Assessed Task	Mapped ILOs	Explanation
A1: Online interactive lessons	ILO1, ILO2, ILO3, ILO4	These lessons provide foundational instruction in engineering research writing conventions and appropriate language use for academic contexts (ILO1), strategies for evaluating and synthesizing sources (ILO2), discipline-specific organizational structures (ILO3), and effective use of data visualizations (ILO4).
A2: Workshop participation	ILO1, ILO2, ILO3, ILO4, ILO5	This assessment evaluates students' ability to employ engineering research writing conventions and appropriate language for their target audience and purpose (ILO1), synthesize and integrate sources effectively to support their research arguments (ILO2), and structure their writing coherently using discipline-specific conventions (ILO3). It also assesses their skill in integrating visuals meaningfully

		into the research report (ILO4).
		Through reflection on feedback from multiple sources—peers,
		instructors, and GenAl—students
		demonstrate their capacity to
		critique and enhance their own writing (ILO5).
		This assessment evaluates
		students' ability to employ
		engineering research writing
		conventions and appropriate
		language for their target audience
		and purpose (ILO1), synthesize
		and integrate sources effectively
		to support their research
		arguments (ILO2), and structure their writing coherently using
A3: Writing practice	ILO1, ILO2, ILO3, ILO4, ILO5	discipline-specific conventions
		(ILO3). It also assesses their skill in
		integrating visuals meaningfully
		into the research report (ILO4).
		Through reflection on feedback
		from multiple sources—peers,
		instructors, and GenAl—students demonstrate their capacity to
		critique and enhance their own
		writing (ILO5).
		This assessment evaluates
		students' ability to employ
		engineering research writing
		conventions and appropriate
		language for their target audience
		and purpose (ILO1), synthesize and integrate sources effectively
A4: Interim FYP report		to support their research
		arguments (ILO2), and structure
		their writing coherently using
	ILO1, ILO2, ILO3, ILO4, ILO5	discipline-specific conventions
		(ILO3). It also assesses their skill in
		integrating visuals meaningfully
		into the research report (ILO4).
		Through reflection on feedback from multiple sources—peers,
		instructors, and GenAl—students
		demonstrate their capacity to
		critique and enhance their own
		writing (ILO5).
A5: Final FYP report	ILO1, ILO2, ILO3, ILO4, ILO5	This assessment evaluates
		students' ability to employ

engineering research writing
conventions and appropriate
language for their target audience
and purpose (ILO1), synthesize
and integrate sources effectively
to support their research
arguments (ILO2), and structure
their writing coherently using
discipline-specific conventions
(ILO3). It also assesses their skill in
integrating visuals meaningfully
into the research report (ILO4).
Through reflection on feedback
from multiple sources—peers,
instructors, and GenAl—students
demonstrate their capacity to
critique and enhance their own
writing (ILO5).
writing (ILOS).

Grading Rubrics

Detailed rubrics for each assignment are provided on Canvas. These rubrics clearly outline the criteria used for evaluation. Students can refer to these rubrics to understand how their work will be assessed.

Final Grade Descriptors

Grades	Short Description	Elaboration on subject grading description
P Pass	Dace	Completes at least 50% of A1, A2, and A3;
	PdSS	And passes both A4 and A5.
F Fail	Fail	Does no complete 50% of any of A1, A2, or A3;
	raii	Or fail A4 or A5.

Course AI Policy

We encourage students to make use of all the tools available that can help them to communicate more effectively in English. We also expect students to uphold the highest standards of academic integrity. There is no penalty for using or not using GenAI. However, GenAI and other tools cannot be used as a substitute for a student's own work. Students are expected to write their own assessed assignments and to prepare their presentations themselves.

GenAI tools can be very useful for:

- Brainstorming ideas and suggesting sources BUT the information provided may not be accurate or relevant to your assignment.
- Giving suggestions about improving the organization of your writing BUT GenAl tends to suggest very formulaic patterns of writing which may not fit your requirements.

- Giving suggestions about improving your language BUT GenAI may make suggestions for language changes which are not appropriate for the intended context and audience.
- Suggesting simple ways of expressing complex discipline-specific concepts BUT these
 explanations may be unfamiliar to your audience.
- Providing summaries of long texts BUT important information may be omitted, particularly if the original text is not well-written.

In short, GenAI provides opportunities to enhance your use of English and contains pitfalls which you need to be aware of.

Communication and Feedback

Assessment marks for individual assessed tasks will be communicated via Canvas within ten working days of submission. Feedback on assignments will include strengths and areas for improvement where relevant. Students who have further questions about the feedback including marks should consult the instructor within five working days after the feedback is received.

Resubmission Policy

Resubmissions are not accepted, except in exceptional circumstances.

Required Texts and Materials

Course materials and additional resources are provided via Canvas.

Academic Integrity

Students are expected to adhere to the university's academic integrity policy. Students are expected to uphold HKUST's Academic Honor Code and to maintain the highest standards of academic integrity. The University has zero tolerance of academic misconduct. Please refer to <u>Academic Integrity | HKUST – Academic Registry</u> for the University's definition of plagiarism and ways to avoid cheating and plagiarism.

Plagiarism

In CLE assignments, students should not copy from others nor submit the same work for multiple courses. Source materials must be explicitly acknowledged.

Assignments with evidence of plagiarism may score a zero and be followed up with your department's Dean. To demonstrate academic integrity and avoid plagiarism, you are expected to:

- paraphrase, summarize, reference and synthesize ideas from sources
- refrain from copying expressions and ideas directly from any source (e.g. from another student, or from a video, or from an article, etc.) without proper acknowledgement