The Hong Kong University of Science and Technology
UG Course Syllabus

Technical Communication 2 for Mechanical and Aerospace Engineering students
LANG4034
3 credits
Pre-requisites: LANG2030 or LANG2030(H). The course is open to MAE students undertaking MECH3690 or MECH3830.

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Office Hours of Course coordinator: Available by appointment only. Students should contact their section instructor directly with any questions.

Course Description

LANG4034 is a three-credit, one semester core course offered to third-year students from Mechanical and Aerospace (MAE) engineering. Students attend three hours of class and complete up to six hours of out-of-class work per week. The course focusses on two areas:

- Laboratory report writing
  Students will develop effective organisational strategies and enhance their ability to use appropriate language and skills to write laboratory reports for their MAE courses; having developed an understanding of what constitutes an effective laboratory report, they will then use this knowledge to critique laboratory reports.

- Communication skills for technical projects
  Students will develop effective organisational strategies and enhance their ability to use appropriate language and skills to write an academic project report for MAE. They will also learn how to present information coherently, and for maximum impact on the audience, in a pitch and a presentation on an MAE design idea.

Intended learning outcomes (ILOs)

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

1. critically analyze and discuss major issues and recent developments in your major and related professions.
2. select relevant and appropriate information from texts in your major subject and from related professional sources, including non-written data, e.g. graphs, equations, images.
3. summarize and synthesize this information appropriately, avoiding copying.
4. support claims with appropriate evidence, and properly acknowledge sources.
5. speak and write clearly and fully, using relevant information, ideas and arguments.
6. write and speak coherently using appropriate organizational structures and formatting for engineering-related communication tasks.

7. recognize appropriate organizational structure, tone and formatting in written and spoken communication in your major subject and in related professional sources
8. use accurate and fluent language (pronunciation, intonation, vocabulary, linguistic structures and style) relevant to engineering-related communication tasks.
9. use appropriate language to address the needs and concerns of a variety of academic and professional audiences in speaking and writing.
10. use appropriate body language in engineering-related presentations.
11. use a variety of modes of communication effectively.
12. show awareness of own learning needs and how they fit into the wider self, academic and professional development.
13. identify strengths and weaknesses in the work of others
14. give constructive feedback to improve the performance of others in engineering-related communication tasks.

Assessment and Grading

This course will be assessed using criterion-referencing and grades will not be assigned using a curve. Detailed rubrics for each assignment are provided on Canvas.

Assessment Task	Contribution to Overall Course grade (%)	Due date
A1: Practice Task: Laboratory report Review	5%	Approx. week 5*
A2: Design proposal report Part 1	10%	Approx. week 8*
A3: Pitch video for your design idea	10%	Approx. week 9*
A4: Design proposal report Part 2	35%	Approx. week 12*
A5: Group presentation of your design idea	40%	Approx. week 13*

* Specific due dates are posted on Canvas. Assessment marks for individual assessed tasks will be released within two weeks of the due date.

Mapping of Course ILOs to Assessment Tasks

Assessed Task	Mapped ILOs	Explanation
A1: Practice Task: Laboratory report Review	ILO3, ILO9, ILO12, ILO13, ILO14	This task assesses students' ability to summarize and synthesize information appropriately, avoiding copying (ILO3), using appropriate language to address the needs and concerns of academic audiences (ILO9). Students should show awareness of own learning needs (ILO12), identify strengths and weaknesses in the work of others (ILO13), and give constructive peer feedback (ILO14).

A2: Design proposal report Part 1	ILO1, ILO2, ILO3, ILO4, ILO5, ILO6, ILO7, ILO8, ILO9	This task assesses students' ability to critique and synthesize information from multiple sources to fully and clearly develop ideas (ILO1-4) that are communicated coherently (ILO6) to a specific target reader (ILO5) in appropriate language (ILO7-9).
A3: Pitch video for your design idea	ILO1, ILO2, ILO5, ILO6, ILO7, ILO8, ILO9, ILO10, ILO11	This task assesses students' ability to select relevant and appropriate information, to fully and clearly develop ideas (ILO1,2) that are communicated coherently (ILO6) to a specific target reader (ILO5) in appropriate language (ILO7-9), accompanied by a variety of modes of communication (ILO10-11).
A4: Design proposal report Part 2	ILO1, ILO2, ILO3, ILO4, ILO5, ILO6, ILO7, ILO8, ILO9	This task assesses students' ability to critique and synthesize information from multiple sources to fully and clearly develop ideas (ILO1-4) that are communicated coherently (ILO6) to a specific target reader (ILO5) in appropriate written language (ILO7-9).
A5: Group presentation of your design idea	ILO1, ILO2, ILO3, ILO4, ILO5, ILO6, ILO7, ILO8, ILO9, ILO10, ILO11	This task assesses students' ability to select relevant and appropriate information, to fully and clearly develop ideas (ILO1,2) that are communicated coherently (ILO6) to a specific target reader (ILO5) in appropriate language (ILO7-9), accompanied by a variety of modes of communication (ILO10-11).

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
A	Excellent Performance	Demonstrates a comprehensive grasp of subject matter, expertise in problem-solving, and significant creativity in thinking. Exhibits a high capacity for scholarship and collaboration, going beyond core requirements to achieve learning goals.
B	Good Performance	Shows good knowledge and understanding of the main subject matter, competence in problem-solving, and the ability to analyze and evaluate issues. Displays high

		motivation to learn and the ability to work effectively with others.
C	Satisfactory Performance	Possesses adequate knowledge of core subject matter, competence in dealing with familiar problems, and some capacity for analysis and critical thinking. Shows persistence and effort to achieve broadly defined learning goals.
D	Marginal Pass	Has threshold knowledge of core subject matter, potential to achieve key professional skills, and the ability to make basic judgments. Benefits from the course and has the potential to develop in the discipline.
F	Fail	Demonstrates insufficient understanding of the subject matter and lacks the necessary problem-solving skills. Shows limited ability to think critically or analytically and exhibits minimal effort towards achieving learning goals. Does not meet the threshold requirements for professional practice or development in the discipline.

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 GenAI 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 [Academic Integrity | HKUST - Academic Registry](#) for the University's definition of plagiarism and ways to avoid cheating and plagiarism.