

The Hong Kong Polytechnic University

Subject Description Form (2023)

Subject Code	ELC3523
Subject Title	Scientific Communication for BME Students
Credit Value	2
Level	3
Pre-requisite	LCR English subjects
Objectives	This subject aims to develop the English language and communication skills required by BME students to discuss, report and present scientific studies in writing and speaking.
Intended Learning Outcomes	<p>Upon completion of the subject, students will be able to:</p> <ol style="list-style-type: none"> a) describe and integrate data and sources critically and coherently in scientific communication; b) organise and produce scientific laboratory reports effectively and in a scientific manner; c) select, transfer and deliver objective-based speeches of scientific projects convincingly; d) respond to inquiries and interpret ideas professionally. <p>As part of A2, students are required to answer inquiries following their presentations, which is why ILO(d) above has been added.</p>
Subject Synopsis/ Indicative Syllabus	<p>The content is indicative. The balance of the components, and the corresponding weighting, will be based on the specific needs of the students.</p> <ol style="list-style-type: none"> 1) Introducing scientific studies Explaining the background to a study; reviewing, synthesizing and critiquing sources and previous studies; stating objectives; describing procedures; justifying ideas. 2) Organising data and research materials Arranging written and verbal content logically and systematically; maintaining coherence and cohesion. 3) Exhibiting study results Describing and interpreting results; explaining causal relationships; discussing implications; presenting conclusions.
Teaching/Learning	The study method is primarily seminar-based. Activities include teacher

Methodology
(Note 3)

input as well as individual and group work involving drafting and improving texts. Students will be referred to information on the Internet and the ELC's Centre for Independent Language Learning.

Learning materials mainly developed by the English Language Centre in collaboration with BME are used throughout this course. Additional reference materials will be recommended as required.

Assessment Methods in Alignment with Intended Learning Outcomes
(Note 4)

Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)			
		a	b	c	d
1. Individual Laboratory Report	10% + 35%	✓	✓		
2. Individual Oral Presentation of the Scientific Project; and Q&A Note that though assessed separately, Q&A remains part of the assessment.	35% + 20%	✓		✓	✓
Total	100 %				

Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:

Assessment One is based on information provided by the BME programme leader. Standard lab report format involves conducting a theme-based lab experiment (by BME), collecting data (by students), and presenting findings (as part of the ELC's assignment). Prior to submitting the full lab report, students will be asked to participate in a pair review session to be conducted in Consultation One. By interacting with classmates from another group, students will be able to achieve higher-order thinking through peer learning. The "results" and "discussion" sections of their lab reports could be more personalised and justified as a result. This will contribute 10% to the final assessment grade.

Assessment Two is based on the BME group project proposal, in which each student and his/her group will discuss the same topic that has already

	<p>been approved. However, students will finish this assessment individually, even though they should work in a group environment. Students will attend a group interaction section in Consultation Two where they will discuss work focuses and identify persuasive elements to use in their individual oral presentation. In essence, each student will confirm with the teacher one objective of his/her group project proposal and how his/her oral presentation will contribute to it.</p> <p>To counteract any negative effects of overreliance on AI, the Q&A following an individual oral presentation is now assessed separately. Students' interactions with their classmates allow the teacher to assess their spoken proficiency more accurately. The following criteria are being included in a new assessment rubric*:</p> <p>Response (30%) – Complete; Exact; Persuasive Interpretation (30%) – Ability to exemplify as planned; Uniqueness/creativity in response to new challenges Etiquette (20%) – Positive; Focused without distraction; Appropriately interactive Language (20%) – Concise; Comprehensible; Grammatical</p> <p>This subject adopts the method of 100% continuous assessment. Students' writing and speaking skills are evaluated through the assessment tasks designed to achieve the learning outcomes. Students are assessed on the accuracy and the appropriacy of the language used in fulfilling the assessment tasks, as well as the selection and organisation of ideas during their active participations in discussions.</p>	
Student Study Effort Expected	Class contact:	
	<ul style="list-style-type: none"> ■ Seminars 	26 Hrs.
	Other student study effort:	
	<ul style="list-style-type: none"> ■ Classwork-related and assessment related preparation and self-access work 	52 Hrs.
	Total student study effort	78 Hrs.

**Reading List and
References**

Required reading

Course materials prepared by the English Language Centre

Recommended readings

Beer, D. F. (Ed.) (2015). *Writing and speaking in the technology professions: A practical guide*. Hoboken, NJ: Wiley.

Leedy, P. D. (2019). *Practical research: Planning and design*. Upper Saddle River, NJ: Merrill. [Chapter 6: proposal writing with example extracts]

Locke, L. F. (2009). *Proposals that work: A guide for planning dissertations and grant proposals* (5th ed.). Thousand Oaks, CA: Sage.

Tebeaux, S. (2018). *Writing science right: strategies for teaching scientific and technical writing*. New York: Routledge.

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