

The Hong Kong Polytechnic University

Subject Description Form

Please read the notes at the end of the table carefully before completing the form.

Subject Code	ENGL4022
Subject Title	Quantitative Literacy for Language Professionals
Credit Value	3
Level	4
Pre-requisite / Co-requisite/ Exclusion	N.A.
Objectives	<p>Quantitative literacy is the ability to solve real world problems with mathematical skills, and is valuable even in language-related professions such as language teaching, sales and marketing, and clinical settings (e.g. speech therapy). This subject equips future language professionals with practical quantitative skills for describing and analyzing language-relevant information, thereby adding value to their primary skillset. Students will learn how these skills complement verbal persuasion, analysis, and presentation in real life contexts where a strong emphasis is placed on quantifiable facts. No extensive mathematics background is required.</p> <p>The subject adopts a thematic and problem-based approach to meet the following objectives.</p> <ol style="list-style-type: none"> 1. Introduce general quantitative skills to frame and solve problems which arise in the context of language professions 2. Equip students to address quantitative issues characteristic of language teaching, including student assessment and evaluation of teaching and learning processes 3. Equip students to address quantitative issues characteristic of sales and marketing, including the analysis of market surveys and sales trends 4. Equip students to address quantitative issues characteristic of clinical linguistics, including evaluation of clients and experimental design <p>Students will benefit from an interactive pedagogical approach with balanced individual and group assessment tasks. Classroom and independent learning will be further supported by open-source statistical analysis software (JASP) and Microsoft Excel.</p>
Intended Learning Outcomes (Note 1)	<p>Upon completion of the subject, students will be able to:</p> <p>Category A: Professional/academic knowledge and skills</p> <ol style="list-style-type: none"> a. Apply basic statistical knowledge to describe and make inferences with language-related information b. Recognize and produce quality work reflecting the complementary nature

	<p>of verbal and numerical literacy in the workplace</p> <p>Category B: Attributes for all-roundedness</p> <ul style="list-style-type: none"> c. Integrate verbal and numerical modes of reasoning to define and solve real world problems in different language-related contexts d. Develop critical and enduring awareness of the applicability of quantitative skillsets in language professions
<p>Subject Synopsis/ Indicative Syllabus</p> <p><i>(Note 2)</i></p>	<p><u>Introduction</u> Week 1-4</p> <ul style="list-style-type: none"> • What quantitative literacy means to language professionals • Basic descriptive statistics (e.g. data presentation, variables, levels of measurement) • Basic inferential statistics (e.g. hypothesis testing for comparisons and correlations) <p><u>Theme 1: Quantitative literacy in language teaching</u> Week 5-6</p> <ul style="list-style-type: none"> • Describing student characteristics • Monitoring student performance • Evaluating effectiveness of pedagogical practices <p><u>Theme 2: Quantitative literacy in sales and marketing</u> Week 7-8</p> <ul style="list-style-type: none"> • Designing and analyzing verbal-numerical customer feedback surveys • Presenting quantitative information in sales reports <p><u>Theme 3: Quantitative literacy in clinical linguistics</u> Week 9-10</p> <ul style="list-style-type: none"> • Describing client characteristics • Monitoring client output and progress • Evaluating effectiveness of interventions <p><u>Summary and assessment</u> Week 11-13</p> <ul style="list-style-type: none"> • Course summary • Group presentations on applying quantitative skills to address a real-life problem in language professions
<p>Teaching/Learning Methodology</p> <p><i>(Note 3)</i></p>	<p>The maximum class size of 30 allows for an interactive pedagogical approach. Each weekly session will last three hours, with a two-hour lecture immediately followed by a one-hour tutorial.</p> <p>In the lecture, the instructor will impart concepts supported by regular small group activities. This will be the main channel for transmitting professional and academic knowledge (intended learning outcome a.)</p> <p>In the tutorial, students will work on and present solutions to challenging discussion questions related to the lecture. While consolidating knowledge, they also reflect practical and realistic scenarios students are likely to face in the future, thus encouraging the development of higher order thinking skills and life-long learning (intended learning outcomes c. and d.). Tutorial learning will be supported by open-source computer software (e.g. JASP) and Microsoft Excel.</p> <p>Assessment also comprises an important part of the teaching and learning methodology. There will be two short individual take-home assignments, preferred to in-class quizzes for encouraging independent research and allowing</p>

	room for critical thought. There will also be a group project and presentation where students apply quantitative analytical skills to frame and solve a hypothetical but realistic problem in a language profession. This supports development of teamwork and literacy skills (intended learning outcome c.)					
<p>Assessment Methods in Alignment with Intended Learning Outcomes</p> <p>(Note 4)</p>	Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)			
			a	b	c	d
	1. Take-home assignment 1 (short questions on first half of the subject)	35	/	/	/	/
	2. Take-home assignment 2 (short questions on first half of the subject)	35	/	/	/	/
	3. Group project presentation	30	/		/	/
	Total	100 %				
<p>Appropriateness of the assessment methods in assessing the intended learning outcomes:</p> <p>The take-home assignments require students to demonstrate the attainment of all four intended learning outcomes (professional knowledge, literacy skills, higher order thinking skills, and life-long learning) with both verbal and numerical analysis and output. Accordingly, they are each weighted 35%.</p> <p>While the group project is a culmination of the whole semester’s learning, it will be delivered as a verbal presentation with less emphasis on writing skills. It is accordingly weighted 30%.</p>						
<p>Student Study Effort Expected</p>	Class contact:					
	▪ Lecture (3 hours x 13 weeks)					39 Hrs.
	Other student study effort:					
	▪ Independent reading (3 hours x 13 weeks)					39 Hrs.
	▪ Independent/group research (2 hours x 13 weeks)					26 Hrs.
	▪ Doing assignments (2 hour x 13 weeks)					26 Hrs.
	Total student study effort					130 Hrs.
<p>Reading List and References</p>	<p><u>Introduction</u> Chrastil, R. (2014). <i>Quantitative Literacy and the Humanities</i>.</p>					

	<p>http://scalar.usc.edu/works/quantitative-literacy-and-the-humanities/index</p> <p>van Peer, W., Hakemulder, F., & Zyngier, S. (2012). <i>Scientific Methods for the Humanities</i>. Amsterdam and Philadelphia: John Benjamins. (selected chapters)</p> <p>Walker, I. (2010). <i>Research Methods and Statistics</i>. Basingstoke: Palgrave Macmillan. (selected chapters)</p> <p><u>Theme 1: Quantitative literacy in language teaching</u></p> <p>Lowie, W., & Seton, B. (2012). <i>Essential Statistics for Applied Linguistics</i>. Basingstoke: Palgrave Macmillan. (selected chapters)</p> <p>Ortega, L., & Iberri-Shea, G. (2005). Longitudinal Research in Second Language Acquisition: Recent Trends and Future Directions. <i>Annual Review of Applied Linguistics</i>, 25, 26–45.</p> <p>Ryan, R., & Deci, E. (2000). Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. <i>Contemporary Educational Psychology</i>, 25(1), 54–67.</p> <p><u>Theme 2: Quantitative literacy in sales and marketing</u></p> <p>Jaakkola, E., Helkkula, A., Aarikka-Stenroos, L. (2015). Make more strategic use of customer satisfaction surveys. <i>Journal of Service Management</i>, 26(2), 182–205.</p> <p>Ndubisi, N. O., Malhotra, N. K., & Chan, K. W. (2009). Relationship marketing, customer satisfaction and loyalty: A theoretical and empirical analysis from an Asian perspective. <i>Journal of International Consumer Marketing</i>, 21(1), 5–16.</p> <p>Sarantakos, S. (2013). <i>Social Research</i> (4th ed.). Basingstoke: Palgrave Macmillan. (selected chapters)</p> <p><u>Theme 3: Quantitative literacy in clinical linguistics</u></p> <p>Chen, T.B., Lin, C.Y., Lin, K.N., Yeh, Y.C., Chen, W.T., Wang, K.S., & Wang, P.N. (2014). Culture qualitatively but not quantitatively influences performance in the Boston naming test in a Chinese-speaking population. <i>Dementia and Geriatric Cognitive Disorders Extra</i>, 4(1), 86–94.</p> <p>Tay, D. (2015). Metaphor in case study articles on Chinese university counseling service websites. <i>Chinese Language and Discourse</i>, 6(1), 28–56.</p> <p>Additional readings may be recommended depending on student inclinations and aptitude.</p>
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Prepared by Dennis Tay, December 2017

Note 1: Intended Learning Outcomes

Intended learning outcomes should state what students should be able to do or attain upon completion of the subject. Subject outcomes are expected to contribute to the attainment of the overall programme outcomes.

Note 2: Subject Synopsis/ Indicative Syllabus

The syllabus should adequately address the intended learning outcomes. At the same time over-crowding of the syllabus should be avoided.

Note 3: Teaching/Learning Methodology

This section should include a brief description of the teaching and learning methods to be employed to facilitate learning, and a justification of how the methods are aligned with the intended learning outcomes of the subject.

Note 4: Assessment Method

This section should include the assessment method(s) to be used and its relative weighting, and indicate which of the subject intended learning outcomes that each method purports to assess. It should also provide a brief explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes.