Subject Description Form

<table>
<tr><td>Subject Code</td><td>APSS583</td></tr>
<tr><td>Subject Title</td><td>Applied Quantitative Methods in Human Science Research</td></tr>
<tr><td>Credit Value</td><td>3</td></tr>
<tr><td>Level</td><td>5</td></tr>
<tr><td>Pre-requisite / Co-requisite/ Exclusion</td><td>Nil</td></tr>
<tr><td>Assessment Methods</td><td>
<table>
<tr><td>100% Continuous Assessment</td><td>Individual Assessment</td><td>Group Assessment</td></tr>
<tr><td>1. Data Analysis Report</td><td>45 %</td><td>-</td></tr>
<tr><td>2. Seminar presentation</td><td>5 %</td><td>-</td></tr>
<tr><td>3. Seminar participation</td><td>5 %</td><td></td></tr>
<tr><td>4. Term Paper</td><td>45 %</td><td>-</td></tr>
</table>
The followings apply to the overall grade :
• The grade is calculated according to the percentage assigned;
• The completion and submission of all component assignments are required for passing the subject; and
• Student must pass the specific component(s) (standard of passing) if he/she is to pass the subject.
</td></tr>
<tr><td>Objectives</td><td>This subject aims to enable students :
1. Understand the application issues of major quantitative and statistical methods that are commonly used in human science research;
2. Be familiar with proper ways statistical methods can be used to answer research questions;
3. Be able to understand and evaluate research reports and studies that cover commonly used quantitative research methods and statistical analyses.</td></tr>
<tr><td>Intended Learning Outcomes
(Note 1)</td><td>Upon completion of the subject, students will be able to:
a. Be able to distinguish which kind of quantitative research method designs and data analysis methods are suitable for which kind of research questions ;
b. Be able to implement the basics of quantitative data analysis in the commonly used computing software ;</td></tr>
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	c. Be able to critically assess the relevance and suitability of different quantitative research method designs and data analysis methods to specific research questions.
Subject Synopsis/ Indicative Syllabus *(Note 2)*	1. Fundamentals of quantitative research methodology • The contrast between qualitative & quantitative research methodology • The pros and cons of the observational research, experimental research designs and secondary data analysis ; • Ways to design longitudinal research and to resolve practical issues in longitudinal research. 2. Application and design issues in quantitative research methodology : • Major issues related to the three main quantitative research methods - sample size issue, random sampling, response rate & non-response, construction of a questionnaire; • Developing measuring instruments – operationalisation, validity and reliability; • Issues related to applying different statistical methods to analyse data. 3. Using statistical methods to address research questions and build up arguments
Teaching/Learning Methodology *(Note 3)*	The course will emphasize practical and basic uses of quantitative research designs and statistical analysis in various disciplines in human sciences. Examples will be drawn from local and international studies. Classroom lecturing will be supplemented by workshops and hand-on computer practices using local and international survey data. Local and international examples will be used to illustrate design and application issues of quantitative research methodology.
Assessment Methods in Alignment with Intended Learning Outcomes *(Note 4)*	See table below Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes: *Data Analysis Report* Students are expected to understand and conduct a multivariate data analysis method and write up the results into a report. *Seminar Presentations and Participation* Students are expected to give a seminar presentation to demonstrate their

Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)				
		a	b	c		
Data Analysis report	45%	√	√	√		
Seminar presentation and participation	10%	√	√	√		
Term Paper	45%	√	√	√		
Total	100 %					

	appraisal of a major quantitative study (local or international) related to their research interest. *Term Paper* Students are required to submit an individual paper of about 3,000 words elaborating the appraisal they give in the seminar, or on the quantitative methods they develop for their research. The paper will have to cover (a) their research questions and (b) proposed research methods and justifications.	
Student Study Effort Expected	Class contact:	
	▪ Lecture	30 Hrs.
	▪ Seminar	12 Hrs.
	Other student study effort:	
	▪ Computer session	20 Hrs.
	▪ Essay writing	30 Hrs.
	▪ Report writing	20 Hrs.
	Total student study effort	112 Hrs.
Medium of Instruction	English	
Medium of Assessment	English	
Reading List and References	**<u>Essential</u>** Field, Andy P. 2013. *Discovering statistics using IBM SPSS statistics and sex and drugs and rock 'n' roll.* London : Sage. Portney, Leslie G. and Mary P. Watkins**.** 2009. F*oundations of clinical research : applications to practice*. Upper Saddle River, N.J. : Pearson/Prentice Hall. Gallin, John I. and F.P. Ognibene. 2012. *Principles and practice of clinical research*. Oxford : Academic. Hair, Joseph F. et al. 2010. *Multivariate Data Analysis.* Upper Saddle River, NJ : Prentice Hall/Pearson. Imbens, Guido W. and Donald B. Rubin. 2015. *Causal Inference for Statistics, Social and Biomedical Sciences : an introduction*. New York : Cambridge University Press. Marsden, Peter V. and James D. Wright (eds). 2nd edition. 2010. *Handbook of Survey Research*. Bingley, U.K. : Emerald. Rosenbaum, Paul R. 2010. *Designs of Observational Studies*. Springer, New York. Tabachnick, Barbara G. and Linda S.Fidell. 2013. (5th ed.) *Using Multivariate Statistics*. Boston : Pearson. **<u>Supplementary</u>** Sage University Paper Series : *Quantitative Applications in the Social Science.*	

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.