

**City University of Hong Kong  
Course Syllabus**

**offered by Department of Applied Social Sciences  
with effect from Semester A 2016/2017**

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**Part I Course Overview**

<b>Course Title:</b>	Quantitative Research Methods
<b>Course Code:</b>	SS5425
<b>Course Duration:</b>	One semester
<b>Credit Units:</b>	3
<b>Level:</b>	P5
<b>Medium of Instruction:</b>	English
<b>Medium of Assessment:</b>	English
<b>Prerequisites:</b> <i>(Course Code and Title)</i>	Nil
<b>Precursors:</b> <i>(Course Code and Title)</i>	Nil
<b>Equivalent Courses:</b> <i>(Course Code and Title)</i>	Nil
<b>Exclusive Courses:</b> <i>(Course Code and Title)</i>	Nil

## Part II Course Details

### 1. Abstract

The principal focus of the course is on the logic and principles of applying quantitative approach in social research. The topics will include research strategies and designs, sampling, measurement, questionnaire development, survey implementation, data processing, statistical reasoning in data analysis, and quantitative interpretation.

### 2. Course Intended Learning Outcomes (CILOs)

(CILOs state what the student is expected to be able to do at the end of the course according to a given standard of performance.)

No.	CILOs	Weighting (if applicable)	Discovery-enriched curriculum related learning outcomes (please tick where appropriate)		
			A1	A2	A3
1.	Identify and differentiate major concepts and techniques of quantitative research methods;	40%	✓	✓	✓
2.	Design quantitative research studies for problem solving in social settings;	30%	✓	✓	✓
3.	Comment critically on selected quantitative research articles; and	20%	✓	✓	✓
4.	Apply and differentiate descriptive statistical analysis and inferential statistical tests used by social researchers using SPSS.	10%	✓	✓	✓
		100%			

**A1: Attitude**

*Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.*

**A2: Ability**

*Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to self-life problems.*

**A3: Accomplishments**

*Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.*

### 3. Teaching and Learning Activities (TLAs)

(TLAs designed to facilitate students' achievement of the CILOs.)

TLA	Brief Description	CILO No.						Hours/week (if applicable)
		1	2	3	4			
Lecture	There will be weekly lectures, with topics prepared and presented by lecturers. The lectures may assign student to read essential and/or supplementary readings concerning the topics.	✓	✓	✓				2hr/wk
Computer	After mid-semester,				✓			0.5hr/wk

Workshops	workshops to introduce SPSS will be conducted for the hands-on practice of quantitative data entry and statistical analysis.							
Research Proposal	Students are required to write up a survey research proposal. Each student will have to submit the proposal at the end of the semester.	√	√	√				0.5hr/wk

#### 4. Assessment Tasks/Activities (ATs)

(ATs are designed to assess how well the students achieve the CIOs.)

Assessment Tasks/Activities	CICO No.						Weighting	Remarks
	1	2	3	4				
Continuous Assessment: 100 %								
AT1: Survey Research Proposal	√	√	√				50%	
AT2 Exercises			√	√			20%	
AT3: In-class Quiz	√	√		√			30%	
							100%	

##### AT1: Survey Research Proposal

To formulate a Survey Research Proposal, including the research problem statement, literature review, sampling, measurement, data collection method, data analysis and expected findings (very briefly), conclusions, and references. The final version (around 3000 words) is to be submitted at the end of the semester.

##### AT2: Exercises

To write a literature review based on a research question and critical comments on relevant journal articles, and to complete a take-home data processing assignment using SPSS based on selected data set(s).

##### AT3: In-class Quiz

Students are required to take a 90-minute multiple-choice type of quiz to assess their understanding of the basic concepts, principles and techniques of quantitative methods in social research.

## 5. Assessment Rubrics

*(Grading of student achievements is based on student performance in assessment tasks/activities with the following rubrics.)*

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Adequate (C+, C, C-)	Marginal (D)	Failure (F)
1. Survey Research Proposal (50%)	Application of learning in a coherent way	High	Significant	Moderate	Basic	Poor
2. Exercises (20%)	Demonstration of learning	High	Significant	Moderate	Basic	Poor
3. In-class Quiz (30%)	Showing accurate knowledge	High	Significant	Moderate	Basic	Poor

### Part III Other Information (more details can be provided separately in the teaching plan)

#### 1. Keyword Syllabus

(An indication of the key topics of the course.)

Empirical research cycle and process; foundations of measurement and levels of measurement; sampling designs and techniques; (quasi-)experimental design; survey design; data collection and questionnaire design; descriptive statistics: univariate and bivariate analysis; probability and probability distributions; non-parametric tests; inferential statistics: confidence intervals, estimation and hypothesis testing.

#### 2. Reading List

##### 2.1 Compulsory Readings

(Compulsory readings can include books, book chapters, or journal/magazine articles. There are also collections of e-books, e-journals available from the CityU Library.)

1.	Babbie, Earl. (2013). <i>The Practice of Social Research (13<sup>th</sup> ed.)</i> . CA: Wadsworth, Inc.
2.	Bausell, R. Barker. <i>Conducting Meaningful Experiments: 40 Steps to Becoming a Scientist</i> . London: Sage Publications, 1994.
3.	Buckingham, Alan and Peter Saunders (2004) <i>The Survey Methods Workbook: from design to analysis</i> . Cambridge: Polity Press.
4.	DeVellis, Robert F. (2003) <i>Scale Development: Theory and Applications</i> . (2 <sup>nd</sup> ed). NY: Sage.
5.	Henry, Gary T. 1990. <i>Practical Sampling</i> . Applied Social Research Methods Series Volume 21. London: Sage Publications
6.	Gliner, Jeffrey A., George A. Morgan, and Nancy L. Leech. (2009) <i>Research Methods in Applied Settings: An Integrated Approach to Design and Analysis (2nd ed.)</i> NY: Routledge.
7.	Ho, Robert (2006) <i>Handbook of Univariate and Multivariate data analysis and Interpretation with SPSS</i> . NY: Chapman & Hall
8.	Moore, David S., George P. McCabe and Bruce A. Craig. (2012). <i>Introduction to the Practice of Statistics</i> . (6e.) New York: W. H. Freeman & Co.
9.	Punch, Keith F. (2006) <i>Developing Effective Research Proposals (2<sup>nd</sup> ed.)</i> . London: SAGE.
10.	Rudestam, Kjell Erik and Rae R. Newton, <i>Surviving Your Dissertation</i> . London: Sage Publications, 1992. Chapter 1 “The Research Process”(pp. 3-8) and chapter 2 “Selecting a Suitable Topic” (pp. 9-19)
11.	Singleton, Royce A. Jr. and Bruce C. Straits. <i>Approaches to Social Research</i> . Fourth edition. Oxford: Oxford University Press, 2005. Babbie, Earl. (2009). <i>The Practice of Social Research (12<sup>th</sup> ed.)</i> . CA: Wadsworth, Inc.
12.	Treiman, Donald. (2009). <i>Quantitative Data Analysis: Doing Social Research to Test Ideas</i> . San Francisco, CA: Jossey-Bass. (There is a Chinese version of this book: 《量化数据分析：通过社会研究检验想法》，任强译，社会科学文献出版社)
13.	Young, James Webb. <i>A Technique for Producing Ideas</i> . Chicago: NTC Business Books, 1975.

##### 2.2 Additional Readings

(Additional references for students to learn to expand their knowledge about the subject.)

###### Online Resources

<http://www.census2011.gov.hk/en/index.html>

HK Census 2011.

<a href="http://sunzi1.lib.hku.hk/hkuto/index.jsp">http://sunzi1.lib.hku.hk/hkuto/index.jsp</a> Hong Kong University Thesis On-line
<a href="http://www.surveysystem.com/sscalc.htm">http://www.surveysystem.com/sscalc.htm</a> On survey research and sample size calculator
<a href="http://ihome.cuhk.edu.hk/~b103405/1s2001/">http://ihome.cuhk.edu.hk/~b103405/1s2001/</a> web site introducing social research methods by CUHK in Chinese
<a href="http://hkupop.hku.hk">http://hkupop.hku.hk</a> HKU Public Opinion Site
<a href="http://onlinestatbook.com/rvls.html">http://onlinestatbook.com/rvls.html</a> Rice virtual lab in statistics
<a href="http://www.surveyconsole.com/console/showSurveyLibrary.do?surveyID=169">http://www.surveyconsole.com/console/showSurveyLibrary.do?surveyID=169</a> free Survey Template Library
<a href="http://www.researchmethods.com/">http://www.researchmethods.com/</a> Research Method Workshop
<a href="http://www.socialresearchmethods.net/">http://www.socialresearchmethods.net/</a> Research method Site
<a href="http://www.research.umn.edu/consent/menu_soc.html">http://www.research.umn.edu/consent/menu_soc.html</a> Informed Consent
<a href="http://www.randomizer.org/">http://www.randomizer.org/</a> Random Number Generator
<a href="http://www.surveysystem.com/sdesign.htm">http://www.surveysystem.com/sdesign.htm</a> Survey Research
<a href="http://sda.berkeley.edu">http://sda.berkeley.edu</a> Survey Documentation and Analysis
<a href="http://www.du.edu/psychology/methods/concepts/index.htm">http://www.du.edu/psychology/methods/concepts/index.htm</a> Visualizing statistical concepts
<a href="http://faculty.vassar.edu/lowry/VassarStats.html">http://faculty.vassar.edu/lowry/VassarStats.html</a> Vassar Stats
<a href="http://www.quantitativeskills.com/sisa/">http://www.quantitativeskills.com/sisa/</a> Simple Interactive Stat
<a href="http://www.socialresearchmethods.net/selstat/ssstart.htm">http://www.socialresearchmethods.net/selstat/ssstart.htm</a> Selecting Statistics
<a href="http://www.anu.edu.au/nceph/surfstat/surfstat-home/surfstat.html">http://www.anu.edu.au/nceph/surfstat/surfstat-home/surfstat.html</a> Surfur Stat
<a href="http://www.socialresearchmethods.net/">http://www.socialresearchmethods.net/</a> The Web for Social Research Methods
<a href="http://www.websm.org/">http://www.websm.org/</a> Web survey Methodology