City University of Hong Kong
Course Syllabus

offered Department of Social and Behavioural Sciences
with effect from Semester A 2017/18

Part I   Course Overview

Course Title:	Statistics and Data Analysis for Criminology
Course Code:	SS3502
Course Duration:	1 semester
Credit Units:	3
Level:	B3
Proposed Area: *(for GE courses only)*	☐ Arts and Humanities ☐ Study of Societies, Social and Business Organisations ☐ Science and Technology
Medium of Instruction:	English
Medium of Assessment:	English
Prerequisites: *(Course Code and Title)*	Nil
Precursors: *(Course Code and Title)*	Nil
Equivalent Courses: *(Course Code and Title)*	Nil
Exclusive Courses: *(Course Code and Title)*	SS3423 Applied Quantitative Research Methods

Part II   Course Details

1.   Abstract

To provide students a working knowledge of useful statistical methods appropriate for social sciences and professional skills in managing, analysing and interpreting data relevant to criminological research.

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.	understand descriptive statistics and examine sample characteristics.	10%	√	√	
2.	apply inferential statistics to estimate population parameters, test hypothesis and examine relationships among variables.	40%	√	√	
3.	utilize powerful software to process and manage data, and conduct statistical runs/tests.	40%	√	√	√
4.	communicate research findings in a scholarly way and produce a research report for the profession.	10%	√	√	√
If weighting is assigned to CILOs, they should add up to 100%.		100%			

 # Please specify the alignment of CILOs to the Gateway Education Programme Intended Learning outcomes (PILOs) in Section A of Annex.

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	
TLA1: Assigned Readings	Students are required to read 1-2 assigned chapters(s) and/or paper(s) per week before attending each lecture.	✓	✓	✓	✓	
TLA2: Lectures	To provide theoretical basis of the statistical methods and key ideas in managing, analyzing, presenting, and interpreting data collected, as well as presenting research findings.	✓	✓	✓	✓	
TLA3: Tutorials	Hands-on practices using SPSS to deepen students' understanding of statistical methods and to develop skills in analysing datasets, interpreting statistical outputs, and producing research findings.	✓	✓	✓		

4. Assessment Tasks/Activities (ATs)
(ATs are designed to assess how well the students achieve the CILOs.)

Assessment Tasks/Activities	CILO No.				Weighting*	Remarks
	1	2	3	4		
Continuous Assessment: 100%						
AT1: Tutorial Participation and Assignments	✓	✓	✓	✓	30%	
AT2: Group Project (40%)	✓	✓	✓	✓	40%	
AT3: Test (30%)	✓	✓	✓		30%	
Examination: 0% (duration: , if applicable)						

* The weightings should add up to 100%. | 100% |

AT1: Tutorial Participation and Assignments (30%)
During the tutorial sessions, students will be asked to take part in demonstrating the use of SPSS for managing datasets (e.g. variable labels, recoding), selecting appropriate statistical methods (e.g. ANOVA), interpreting statistical outputs, and presenting findings.

AT2:   Group Project (40%)
Students will form small groups to work on assigned or self-initiated research projects to apply the knowledge they acquired in statistics and employ SPSS to process and manage datasets, choose appropriate statistical methods/procedures, interpret the statistical outputs, and report research findings. Each group will submit a report of no more than 4,000 words.

AT3: Test (30%)
At the end of the semester, a 2-hour in-class test will be conducted to assess individual student's understanding of statistical concepts.

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-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
1. Tutorial/ Class Participation	Active and informed participation in class/class etiquette	Excellent demonstration of active and informed participation in class; class etiquette	Good demonstration of active and informed participation in class; class etiquette	Adequate demonstration of active & informed participation in class; class etiquette	Marginal demonstration of active and informed participation in class; class etiquette	Poor demonstration of active and informed participation in class; class etiquette
2. Group Project	CAPACITY to work effectively in a team. ABILITY to offer informed opinions on a given subject of analysis. ABILITY to conduct original research. ABILITY to formulate arguments in a coherent manner. ABILITY to communicate ideas effectively orally and in writing. ABILITY to apply theoretical and conceptual knowledge in conducting original research.	Excellent /Outstanding Research project	Good in conceptualization & operationalization; Good literature review; Valid & reliable measurement	Moderate / Fair	Basic level	Very dissatisfactory
3. Quiz	Understanding of lecture and reading materials, as well as subject matters.	Excellent grasp of knowledge	High level of acquired knowledge	Moderate level	Low level of understanding	Poor level

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.)

   Descriptive statistics

   (i) Central tendency -- mean, median and mode, (ii) Spread – range, variance and standard deviation, (iii) Shape – skewness.

   Inferential statistics and Hypothesis testing

   (i) A single mean, (estimating population parameter and building confidence interval) (ii) Two independent means, (iii) Two related means, (iv) One-way analysis of variance (v) Pearson correlation, (vi) Simple linear regression, (vii) Multiple regression, and (viii) Crosstabulation analysis.

   Use of SPSS in processing and analysing data

   (i) Creation of data/system file, (ii) coding and recoding, (iii) transforming data, (iv) plotting data, (v) frequency runs and tables (vi) conducting statistical tests with Z, t-Test, ANOVA, Pearson correlation, Regression analysis, and Chi-square statistics.

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.	
2.	
3.	
…	

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

Textbook:	
1.	Champion, D. J., & Hartley, R. D. (2010). *Statistics for criminal justice and criminology.* (3rd ed.). N.J. : Pearson Prentice Hall.
2.	Norusis, M. J. (2007). *SPSS 15.0 guide to data analysis.* NJ: Prentice Hall.
Recommended Readings	
1.	Aaron, A., Aaron, E. N., & Coups, E. (2005). *Statistics for the behavioural and social sciences: A brief guide* (3rd ed.). Belmont, CA: Thomson/Wadsworth.
2.	American Psychological Association. (2001). *Publication manual of the American Psychological Association* (5th ed.). Washington, D.C.: American Psychological Association.
3.	Babbie, E. (2007). *The practice of social research* (11th ed.). Belmont, CA: Thomson/Wadsworth.

4.	Healey, J. F. (2005). *Statistics: A tool for social research* (7th ed.). Belmont, CA: Thomson/Wadsworth.
5.	Jackson, S. L. (2006). *Research methods and statistics: A critical thinking approach* (2nd ed.). Belmont, CA : Thomson/Wadsworth.
6.	Kendrick, J. R. (2005). *Social statistics: An introduction using SPSS for windows* (2nd ed.). Boston: Allyn and Boston.
7.	Lester, J. D., & Lesteer, J. D. (2006). *Writing research papers in the social science.* Boston: Pearson/Longman.
8.	Levin, J., & Fox, J. A. (2004). *Elementary statistics in social research: The essentials.* Boston: Allyn and Bacon.
9.	Szuchman, L. T. (2008). *Writing with style: APA style made easy* (4th ed.). Belmont, CA: Thomson/Wadsworth.
10.	Walker, J. T., & Maddan, S. (2009). *Statistics in criminology and criminal justice: Analysis and interpretation.* Mass.: Jones and Bartlett Publishers.
11.	Zechmeister, E. B., & Posavac, E. J. (2003). *Data analysis and interpretation in the behavioral sciences*. Belmont: Wadsworth/Thomson Learning.