

**Lingnan University**  
**Bachelor of Social Sciences Program**

**SSC 116**  
**Introduction to Research Methodology in the Social Sciences**  
**September 2009**

**1. Instructors' Correspondences**

<b>Instructor</b>	<b>Mr. Lawrence HO</b>	<b>Dr. Lucia SIU</b>	<b>Dr. Lin ZOU</b>
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**Tutor of the Mathematics (M) module**

**Mr. Ma Yiu Chung** (*Department of Economics*) (E-Mail: [Yc2ma@LN.edu.hk](mailto:Yc2ma@LN.edu.hk))

*Office: SO 301A, Tel. 26167073*

*Office hour: Every Monday and Wednesday, 11:00 a.m. to 12:00 a.m.*

**2. Course Description and Objectives**

This course introduces the process, structure, and tools of research in social sciences. It deals with the general logic of scientific inquiry, research design, sampling, measurement and the various modes of research. It also teaches students how to use the fundamental tools of data analysis including basic quantitative and statistical techniques.

This course does not aim at training expert social scientists, but at familiarizing students with 1) the theoretical principles which scientific research is based on, 2) established techniques that can be applied in research. The 14-week lectures are organized into three major parts: Research Methods, Statistics and Mathematics. Research Methods part touches on the key concepts of research methodologies. Statistics part offers an introduction to statistics that helps students to describe, interpret and design social science research. The focus of Mathematics part is on basic algebra, calculus and more importantly on their applications to real life problems.

**3. Learning Outcomes**

On completion of the course, successful students are expected to

- 1) Understand the basic logic, concepts and theoretical principles of social science research.
- 2) Conceptualize a research problem and develop appropriate methods and measures to study the problem.
- 3) Use basic statistics to describe and interpret issues in economic, political and social life.
- 4) Demonstrate basic skills of algebra and differentiation relevant to economics and the social sciences.

#### 4. Assessment

Assessment of student performance is based on the following **FOUR criteria**:

- 1) Class attendance & participation (**10%**)
- 2) Group /individual presentation performance (10%) in **Week 5** & the presentation report (20%) due in **Week 6** (**30%**)
- 3) Assignments given in **Week 6 - 13** (**20%**)
- 4) Final exam on **5 December 2009 (Sat)** (**40%**).

#### **University policy to tackle plagiarism**

*With regard to your coursework in particular, you are reminded: You must note the sources of quotations, data and general information in essays and submitted works. These sources/references should appear in alphabetical order in your list of references/bibliography.*

*According to Lingnan University and Social Sciences Program policy, plagiarism is "presentation of another person's work without proper acknowledgment of the source". Plagiarism (unattributed copying) will be heavily penalized and may attract a zero mark and disciplinary action.*

#### **Academic Integrity**

*Students shall be aware of the University regulations about dishonest practice in course work and the possible consequences as stipulated in the Regulations Governing University Examinations.*

#### **Missed Exam**

*A student who missed an exam may be allowed to take a makeup. To be eligible for consideration, the student must provide a written official letter and relevant evidence to your instructor(s) within 24 hours of the missed exam. Otherwise a missed exam equals zero point.*

#### **Submission of Coursework and Late Penalty**

*Students may be required to submit both electronic and printed copies of their written reports for coursework assessment purpose.*

*Late submissions within 5 working days after the due date: Deduct one subgrade, e.g. "B" to "B-".  
Late submissions beyond 5 working days of the due date: "F" grade for the course work component*

#### 5. Reading List

##### **Recommended Readings**

Punch, K. (2005). Introduction to Social Research: Quantitative and Qualitative Approaches (2nd edition). London: Sage Publications Limited.

Healey J. (2009). Statistics: A tool for Social Research (8th edition). Belmont: Wadsworth Cengage.

Haeussler, E. & Richard, P. (2007). Introductory Mathematical Analysis for Business, Economics and the Life and Social Sciences, 12th edition. Pearson Prentice Hall.

**6. Class time, venue & schedule**

2 Lessons/ week	Class A	Class B	Class C
Lesson 1	Thursday 15:30 – 16:30	Tuesday 10:00 – 12:00	Tuesday 12:00 – 13:00
	<i>GE 103</i>	<i>NAB UG11</i>	<i>GE 103</i>
Lesson 2	Friday 9:00 – 11:00	Friday 12:30 – 1:30	Thursday 11:30 – 13:30
	<i>SO 201</i>	<i>SO 102</i>	<i>SO 102</i>
Week	Class A	Class B	Class C
1	<b>Intro:</b> 3 & 4 Sep	<b>Intro:</b> 1 & 4 Sep	<b>Intro:</b> 1 & 3 Sep
2	<b>R1:</b> 10 & 11 Sep	<b>R1:</b> 8 & 11 Sep	<b>R1:</b> 8 & 10 Sep
3	<b>R2:</b> 17 & 18 Sep	<b>R2:</b> 15 & 18 Sep	<b>R2:</b> 15 & 17 Sep
4	<b>R3:</b> 24 & 25 Sep	<b>R3:</b> 22 & 25 Sep	<b>R3:</b> 22 & 24 Sep
5	<b>R4: makeup class &amp;</b> 2 Oct	<b>R4:</b> 29 Sep & 2 Oct	<b>R4:</b> 29 Sep & <b>makeup class</b>
6	<b>S1:</b> 8 & 9 Oct	<b>M1:</b> 6 & 9 Oct	<b>S1:</b> 6 & 8 Sep
7	<b>S2:</b> 5 & 16 Oct	<b>M2:</b> 13 & 16 Oct	<b>S2:</b> 13 & 15 Oct
8	<b>S3:</b> 22 & 23 Oct	<b>M3:</b> 20 & 23 Oct	<b>S3:</b> 20 & 22 Oct
9	<b>S4: makeup class &amp;</b> 30 Oct	<b>M4:</b> 27 & 30 Oct	<b>S4:</b> 27 & 29 Oct
10	<b>M1:</b> 5 & 6 Nov	<b>S1:</b> 3 & 6 Nov	<b>M1:</b> 3 & 5 Nov
11	<b>M2:</b> 12 & 13 Nov	<b>S2:</b> 10 & 13 Nov	<b>M2:</b> 10 & 12 Nov
12	<b>M3:</b> 19 & 20 Nov	<b>S3:</b> 17 & 20 Nov	<b>M3:</b> 17 & 19 Nov
13	<b>M4:</b> 26 & 27 Nov	<b>S4:</b> 24 & 27 Nov	<b>M4:</b> 24 & 26 Nov
14	<b>5 Dec 2009 (Saturday) 9:30 - 11:30am</b> <b>Examination at NAB 319</b>		

**7. Course Outline**

Topic	Indicative contents
<b>Intro</b>	<b>Housekeeping</b> <b>Course Introduction and course administration</b> <ul style="list-style-type: none"> <li>- What is research?</li> <li>- Inductive and deductive reasoning</li> <li>- How to think critically?</li> </ul>
<b>R1</b>	<b>Introduction to inquiry &amp; Research Design</b> <ul style="list-style-type: none"> <li>- Flowchart of scientific research</li> <li>- Using the library and internet resources</li> <li>- Research Ethics</li> </ul> <b>Identifying the research problem</b> <ul style="list-style-type: none"> <li>- Selection of research topic and setting research questions</li> <li>- What is a literature review and why it is important</li> <li>- Conceptualization and operationalization of variables</li> </ul>

<b>R2</b>	<b>Qualitative field research and Quantitative data analysis</b> <ul style="list-style-type: none"> <li>- Their characteristics and critical issues</li> <li>- Similarities and differences</li> <li>- Different kinds of social research</li> </ul>
<b>R3</b>	<b>Modes of research</b> <ul style="list-style-type: none"> <li>- Experiment and quasi-experiment</li> <li>- Survey and questionnaire</li> <li>- Observation, case study, interview &amp; focus group</li> <li>- Their relative strengths and weaknesses</li> <li>- Analyzing data, essay/ report writing and referencing</li> </ul>
<b>R4</b>	<b>Review and Presentation</b> <ul style="list-style-type: none"> <li>- Critical analysis of research designs and reports</li> <li>- Students' presentation of research question and design</li> </ul>
<b>S1</b>	<b>Descriptive Statistics</b> <ul style="list-style-type: none"> <li>- Why numbers matter? On variables and indicators</li> <li>- Levels of measurement</li> <li>- The description of grouped data</li> <li>- Central tendency: mean, median, mode</li> <li>- Dispersion: variance and standard deviation</li> </ul>
<b>S2</b>	<b>Sampling and Probability</b> <ul style="list-style-type: none"> <li>- Sampling designs</li> <li>- The Central Limit Theory</li> <li>- The normal distribution</li> <li>- Using Z score</li> </ul>
<b>S3</b>	<b>Inferential Statistics</b> <ul style="list-style-type: none"> <li>- Rewriting your research question into a hypothesis</li> <li>- Significance tests</li> <li>- Testing hypotheses: the five-step model</li> <li>- Testing for means and proportions</li> <li>- Type I and Type II errors</li> </ul>
<b>S4</b>	<b>Introduction to a statistical software (SPSS lab session)</b> <ul style="list-style-type: none"> <li>- Structure of a dataset</li> <li>- Data entry</li> <li>- Compiling simple output: tables and graphs</li> </ul>
<b>M1</b>	<b>Introduction to Mathematics and review of basic Algebra</b> <ul style="list-style-type: none"> <li>▪ Exponents and Radicals</li> <li>▪ Factoring</li> <li>▪ Fractions</li> <li>▪ Absolute Value</li> <li>▪ Summation Notation</li> </ul>

<b>M2</b>	<b>Linear and Nonlinear Functions</b> <ul style="list-style-type: none"><li>▪ Functions and Graphs</li><li>▪ Lines</li><li>▪ Systems of linear equations</li><li>▪ Quadratic Functions</li><li>▪ Exponential and logarithms</li><li>▪ Application</li></ul>
<b>M3</b>	<b>Basic Calculus: Differentiation</b> <ul style="list-style-type: none"><li>▪ The meaning of derivative as slope of a function</li><li>▪ Curve sketching</li><li>▪ Differentiability and continuity</li><li>▪ Rules of differentiation</li><li>▪ Applications of differentiations</li></ul>
<b>M4</b>	<b>Mathematics of Finance</b> <ul style="list-style-type: none"><li>▪ Compound Interest</li><li>▪ Present Value/Future Value</li><li>▪ Annuities</li><li>▪ Amortization of Loans</li></ul>
<b>Final Exam</b>	<b>5 December (Saturday) 9:30 - 11:30am</b>