

PO4102 Methods and Research in Political Science

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Office hours: Thursday, 9-11am

Lecture:

Thursday, 16:00-18:00 (Room C1-058)

Computer labs:

Group A: Monday, 14:00-15:00 (Room A1-089)

Group B: Tuesday, 11:00-12:00 (Room A1-089)

Contents

This module introduces students to quantitative methods and research in Political Science. It covers the definition, operationalisation, and measurement of variables, the development of theory and the formulation of hypotheses, the role of research design and statistical control in making claims about causality, as well as the use of bivariate and multivariate statistical methods to assess hypothesised relationships amongst variables. The module also provides a thorough introduction to the practical application of quantitative methods in a statistical software package.

Aims and objectives

On successful completion of this module, students should be able to:

- Define, operationalise, and measure variables
- Identify and distinguish the measurement scales of variables and describe them appropriately
- Formulate theoretically derived hypotheses
- Describe and assess research designs according to their ability to generate sound causal inferences
- Understand the logics of statistical control and statistical inference
- Conduct and interpret bivariate and simple multivariate statistical analyses
- Demonstrate proficiency in computer-assisted quantitative data analysis using SPSS

Format

The module is taught through a combination of lectures and computer lab sessions. In the lectures, new module topics are first introduced, described and explained on a conceptual level. In the corresponding computer lab session, the new concepts and statistical techniques are applied to analyse real-world datasets in the statistical software package SPSS. To ensure effective preparation, students should read the relevant chapter in the main text in advance of the lecture and should work through the relevant chapter in the workbook in SPSS before the related computer lab session. To consolidate the knowledge of the newly learned material, working through the end-of-chapter exercises in both texts is also highly recommended. Note

that the computer lab session associated with a certain lecture takes place in the week after the lecture takes place (e.g. the computer lab sessions associated with the lecture on Thursday in week 2 will take place on Monday and Tuesday in week 3). While the lectures and computer labs follow the main text and the workbook closely, they also cover additional material that will form part of the assessment. Thus, students are expected to attend all lectures and computer lab sessions.

Assessment

The assessment for this module consists of two small research papers. Both are based on material covered in the lectures/computer labs and the reading. The first paper accounts for 30% of the final grade and will be based on material from weeks 1 to 4, covering the definition of concepts, the operationalisation and measurement of variables, the formulation of hypotheses, and the preliminary examination of hypotheses through simple descriptive comparisons. Detailed instructions for this paper will be distributed on Wednesday, 23 February (week 5). The deadline for submission of the paper is 5pm on Wednesday, 9 March (week 7).

The second paper accounts for 70% of the final grade and will be based on material from weeks 1 to 12. In addition to the topics already covered in the first paper, the second paper will put a special emphasis on controlled comparisons, statistical inference, as well as bivariate and multivariate analysis. Detailed instructions for this paper will be distributed on Wednesday, 13 April (week 12). The deadline for submission of the paper is 5pm on Wednesday, 4 May (week 14).

For both papers, an electronic version (MS Word, RTF, or PDF format) should be submitted via Turnitin and a hardcopy should be placed in the box outside the department office (F1-018). A paper is not deemed fully submitted unless both an electronic and paper version has been submitted on time. Late submissions will not be accepted. Extensions will only be given prior to the deadline on submission of supporting documentation from doctors, counsellors, or UL student supervisors.

Plagiarism

This module relies on the plagiarism detection software Turnitin. Students are required to submit their papers through Turnitin (www.turnitin.com). Before the first research paper is due, students will receive the log-in details for their Turnitin account. A quick-start guide on how to use Turnitin is available on the module's SULIS webpage.

Repeat assessment

Students who fail this module may be eligible for a repeat assessment. The repeat assessment will take the form of an exam and will take place at the end of August. The repeat exam will cover material from all parts of the module and determine 100% of the final grade. Note that grades of repeat assessments are capped at a C3.

Reading

The module relies heavily on the following text and its accompanying workbook:

Pollock, Philip H. (2009a) *The Essentials of Political Analysis*. Third Edition, Washington: CQPress.

Pollock, Philip H. (2009b) *An SPSS Companion to Political Analysis*. Third Edition, Washington: CQPress.

All chapters of the main text and the workbook are directly related to the material covered in one of the lectures or computer labs. Therefore, students are highly encouraged to purchase both books. Students are expected to have read the relevant chapter of the main text in preparation for the lectures and worked through the relevant workbook chapter with SPSS in preparation for the computer labs. Revising the material after each lecture and computer lab by completing the relevant end-of-chapter exercises is also highly recommended as an efficient learning strategy.

Course Schedule and Required Reading

The lecture reading refers to the relevant chapter title in the main text (Pollock 2009a); the computer lab reading refers to the relevant chapter in the workbook (Pollock 2009b). Note that the computer labs start in week 3 and that they generally take place in the week after the week in which the corresponding lecture takes place.

Week 1 (27 January) Introduction

Lecture: Introduction

Week 2 (3 February) Concept Definition and Operationalisation

Lecture: Chapter 1. Definition and Measurement of Concepts

Computer lab (week 3): Chapter 1. Introduction to SPSS

Week 3 (10 February) Measurement and Description

Lecture: Chapter 2. Measuring and Describing Variables

Computer lab (week 4): Chapter 2. Descriptive Statistics

Week 4 (17 February) Building Theories and Formulating Hypotheses

Lecture: Chapter 3. Proposing Explanations, Framing Hypotheses, and Making Comparisons

Computer lab (week 5): Chapter 4. Making Comparisons

Week 5 (24 February) Causation and Research Design

Lecture: Chapter 4. Research Design and the Logic of Control

Computer lab (week 6): Chapter 3. Transforming Variables

Week 6 (3 March) No lecture during this week

=== Also no computer lab in week 7 ===

Week 7 (10 March) Statistical Control

Lecture: Chapter 5. Making Controlled Comparisons

Computer lab (week 8): Chapter 5. Making Controlled Comparisons

Week 8 (17 March) No lecture during this week (Saint Patrick's Day)

Computer lab (week 9): Chapter 5. Making Controlled Comparisons

Week 9 (24 March) Statistical Inference

Lecture: Chapter 6. Foundations of Statistical Inference

Computer lab (week 10): Chapter 6. Making Inferences about Sample Means

Week 10 (31 March) Bivariate Analysis I

Lecture: Chapter 7. Tests of Significance and Measures of Association

Computer lab (week 11): Chapter 7. Chi-Square and Measures of Association

Week 11 (7 April) Bivariate Analysis II

Lecture: Chapter 8. Correlation and Linear Regression

Computer lab (week 12): Chapter 8. Correlation and Linear Regression

Week 12 (14 April) Multivariate Analysis

Lecture: Chapter 8. Correlation and Linear Regression