Examination for PECOS 4022 Applied Statistics for Peace and Conflict Studies

Proposal: We propose changing the examination form in PECOS 4022 to include the following two components: an individual term paper and an open book written examination (each counting 50% toward the final grade). We also ask to extend the written examination from 3 to 4 hours.

Background: PECOS4022 is the core course for statistics in the Peace and Conflict Studies program. The learning objectives include selecting the correct statistical model, how to visualize and interpret the results, and to assess consequences of assumptions and design choices in the analysis (see course website for a full overview of learning objectives). A combination of an open book written examination and an individual term paper is designed to comprehensively assess whether, and to what extent, the students have achieved these learning objectives.

In the term paper the students conduct either an original study or a replication study. Here, they show that they have learned to manage data, conduct their own analyses, and have a critical approach to assessing existing research. The term paper provides students the opportunity to develop their understanding and applied skills alongside the lectures and seminars. The open book exam is designed to further test the depth of student understanding, their ability to select and apply these methods, and their ability to read and evaluate existing research.

Previous examination formats for PECOS4022 have included closed book exams and an at home exam in 2020. The open book examination format is well suited for assessing student understanding and ability to apply the knowledge and skills obtained during the course, while minimizing risks of technical errors (e.g. wifi-problems that could affect a home exam) and possible cheating as it takes place in a controlled environment. The open book exam format is also adopted in methods courses in the Economics department as well as applied teaching formats in the Law department at the University of Oslo.

Proposed changes are highlighted in red below:

Course content

This course introduces students to causal inference in quantitative analysis, and explores various statistical techniques widely used in the peace and conflict literature. The overall learning objective is to enable students to both read and contribute to this literature. The main focus of this class is how to select the correct statistical model, how to visualize and interpret the results, and to assess consequences of assumptions and design choices in the analysis.

The course is mandatory for students in the PECOS program. It will provide students with tools to independently conduct statistical studies, as well as reading and evaluate existing statistical research on peace and conflict topics.

Learning outcome

After having completed the course, the students have acquired the following knowledge, skills and general competencies:

Knowledge

Students will:

- obtain a good grasp of various statistical concepts and measures;
- be well acquainted with various estimators and the criteria for using them;
- be well acquainted with key data structures in peace and conflict research, and the best practices in analysing them;
- be able to communicate statistical material visually in tables and figures

Skills

Students will:

- critically read and evaluate existing statistical studies on peace and conflict topics;
- handle data sets using R, including coding new variables and transforming existing variables in the data set;
- apply the various statistical models mentioned above to data sets, and learn how to properly test hypotheses, interpret results, and draw careful conclusions;
- replicate statistical studies in peace and conflict research, and to conduct independent statistical studies on peace and conflict topics.

General competences

Students will:

- enhance their capabilities in carrying out thorough, independent and critical analysis of complex questions;
- enhance their ability to critically evaluate empirical research;
- enhance their understanding of various elements of the scientific process, including aspects of the relationship between theory and empirical evidence and between concepts and measures

Admission

The course is reserved for students enrolled in the master programme Peace and conflict studies. This course is not available for single course students.

Students who are admitted to study programmes at UiO must each semester register which courses and exams they wish to sign up for in Studentweb.

If you are not already enrolled as a student at UiO, please see our information about admission requirements and procedures.

Prerequisites

Recommended previous knowledge

- Basic concepts in descriptive statistics related to:
    - Measures of central tendency (e.g. mean and median), dispersion (e.g. standard deviation, range),
    - Measures of association and correlation (e.g. percentage difference and Pearson's r correlation coefficient).
- Furthermore, basic knowledge of inferential statistics and of OLS regression (bivariate and multivariate) is required.

We also recommend that PECOS4025 Analytic Perspectives on Peace and Conflict or PECOS4021 - Research Methods is completed before students attend PECOS4022.

Teaching

Lectures and seminars

The seminars are not compulsory, but we recommend you to follow them.

Examination

4-hour open-book written examination and an individual term paper.

The individual term paper must:

- be between 3500-5000 words.
- be an empirical analysis, either in the form of an original study or a replication study.
- meet the formal requirements for submission of written assignments

The written examination and the term paper each counts for approximately 50 percent of the final grade. You receive one overall grade. You must pass the term paper and the written examination in the same semester.

Written examination

The written examination is conducted in the digital examination system Inspera. You will need to familiarize yourself with the digital examination arrangements in Inspera.

Read more about written examinations using Inspera.

Submit assignments in Inspera

You submit your assignment in the digital examination system Inspera. Read more about how to submit assignments in Inspera.

Use of sources and citation

You should familiarize yourself with the rules that apply to the use of sources and citations. If you violate the rules, you may be suspected of cheating/attempted cheating.

Examination support material

Students are permitted to bring all resources they find relevant for the exam, including notes kept on a computer or tablet. They will also have access to the internet. They are not allowed to use these resources for communication during the exam.

Language of examination

The examination text is given in English, and you submit your response in English.

Grading scale

Grades are awarded on a scale from A to F, where A is the best grade and F is a fail. Read more about the grading system.

Explanations and appeals

- Explanation of grades and appeals

Ask for explanation of your grade in this course

Resit an examination

If you are sick or have another valid reason for not attending the regular exam, we offer a postponed exam later in the same semester.

See also our information about resitting an exam.

Withdrawal from an examination

It is possible to take the exam up to 3 times. If you withdraw from the exam after the deadline or during the exam, this will be counted as an examination attempt.

Special examination arrangements

Application form, deadline and requirements for special examination arrangements.

Evaluation

The course is subject to continuous evaluation. At regular intervals we also ask students to participate in a more comprehensive evaluation.