Stockholm University

Course description

Course code:	PH08A1; PH09A1; PH10A1
Course name:	Management and description of quantitative data; Basic statistical analysis; Statistical data modelling
Course credits:	2.5; 2.5; 2.5
Valid from:	Spring 2025

Course content

PH08A1: The purpose of the course is to give the student a practical introduction to basic statistics. The course includes an overview of basic statistical concept and measurements. After the course, the student will be able to manage quantitative data materials and generate descriptive statistics using statistical software, as well to present and interpret these statistics.

PH09A1: The purpose of the course is to give the student a practical introduction to statistical analysis. The course gives an overview of different types of descriptions and analyses of bivariate associations, including cross tables, scatterplots, box plots, chi2 test, t-test, ANOVA, and correlation analysis. After the course, the student will be able to perform basic statistical analyses and interpret the results from these.

PH10A1: The purpose of the course is to give the student a practical introduction to advanced statistical analysis and modelling, as based on regression analysis. The course gives an overview of statistical concepts, methods, and models used for the analysis of associations between multiple variables. After the course, the student will have a basic understanding of, for example, confounding, mediating, and moderating factors, and will be able to perform analyses of associations using multiple variables.

Learning outcomes

PH08A1: In order to receive a passing grade on the course, students are expected to be able to:
Knowledge and understanding
1. Explain commonly used statistical concept and measurements.
2. Interpret statistical graphs and tables.
Skills and abilities
3. Use statistical software to manage data materials.
4. Generate and motivate the choice of descriptive statistics based on the data material and research questions.
Evaluation and approach
5. Critically discuss strengths and limitations of different study designs and data materials.

PH09A1: In order to receive a passing grade on the course, students are expected to be able to:
Knowledge and understanding
1. Interpret results from analyses of bivariate associations.
Skills and abilities
2. Investigate and describe associations between variables by means of basic statistical methods.
Evaluation and approach
3. Contrast different types of basic statistical methods and motivate which is the most appropriate for a given research question.

PH010A1: In order to receive a passing grade on the course, students are expected to be able to:
Knowledge and understanding
1. Argue around the development of statistical models grounded in scientific research questions.
Skills and abilities
2. Apply regression analysis to examine associations between multiple variables.
3. Interpret results from analyses of associations between multiple variables.
Evaluation and approach
4. Discuss the significance of confounding, mediating, and moderating factors.

Teaching

The teaching will be based on lectures and seminars.

It is mandatory to actively participate in the lectures. Mandatory parts that are not fulfilled in the allocated time are to be completed next time the course is offered.

The course will be taught in English.

Forms of examination

Examination I. Individually written assignment

For each course, the learning outcomes are examined through an individually written assignment. Grading will be based on a two-grade scale (U=Fail, G=Pass).

Course requirements

Active participation in the lectures is a course requirement. Apart from being present, the student is required to perform a multiple-choice test with a passing result during each lecture. If the student is absent and/or receives a failing result, a new opportunity to fulfil the mandatory part is presented next time the course is offered.

Language

The examination will be in English.

Certificate of disability study support

For students who have a certificate from Stockholm University with a recommendation for disability study support, the examiner can decide to customize the teaching, give a customized test or let the student complete the test in an alternative way.

Learning platform Athena

We use the learning platform Athena (itslearning) for sharing information and course material. You log into Athena by using your university account via: https://athena.itslearning.com/

Schedule

You can find the course schedule in TimeEdit via the course web page or via the course page in Athena.

Course literature

The literature list for this course is available through the course web page and the course page in Athena.

Referencing

The APA citation format should be used for all referencing.

You can find a reference guide to APA on this page:

https://kib.ki.se/en/write-cite/writing-references-apa-vancouver/reference-guides/reference-guide-apa-7

By using a reference managing software you can collect and organize your references and insert them into your document in a desired format. Via the library's web page you can watch a film with information on how to handle your references. There you will also find information on the most used programs:

https://www.su.se/cmlink/portaler-nod/webb-2021-nod/svensk-webb-2021/centrala-gamla/library/tutorials/tutorials/reference-management-software-1.264569

Plagiarism

Plagiarism, cheating, or self-plagiarism is prohibited in all parts of the course.

You may not copy text from the course literature or other sources, or present other people's ideas or work as your own – this is plagiarism. Summaries or other use of original texts must always be written in your own words and followed by a correct reference. Short quotations (with citation marks) are accepted if necessary, but should be used sparsely and always be accompanied by your own interpretation of the text and a correct reference with page number.

Self-plagiarism is to use your own text once again, without reference to your original text. This could be text from published articles, or text from other assignments you have written before, such as home exams or a thesis.

All examinations are controlled through a software for detecting plagiarism. Suspicion of cheating, plagiarism or self-plagiarism is reported to the Disciplinary Board at Stockholm University.

For more information, please see: https://www.su.se/staff/organisation-governance/governing-documents-rules-and-regulations/education/guidelines-for-disciplinary-matters-at-stockholm-university-1.181

Use of AI chatbots

Use of ChatGPT or other AI chatbots is not permitted in any of the course's examinations.

Suspicion of illicit use of AI chatbots will be tested in tracking tools for AI-generated text and suspected cases will be reported to the Disciplinary Committee at Stockholm University.

For students who have been granted disability study support

You need to inform the study counsellor in the very beginning of the term (studievagledare.publichealth@su.se) that you require pedagogical support. You then also need to present the certificate which you have received from the coordinator for special pedagogical support at Stockholm University.

Please also contact the study counsellor before the start of each new course, to plan for an alternative/accommodated form of examination, if possible.

Grading criteria

For each course, to receive a pass grade (G), the submitted individual assignment should be clear and largely correct. The use of Stata syntax should be largely accurate and the interpretations reasonable. If you do not meet the requirement for a pass

grade but are close to passing, you will be asked to revise the assignment. If the assignment is far from passing, you will need to re-take the exam.

Contact information

Course managers

Please contact the course manager via the message function in Athena.

Course administrator

kursadmin.publichealth@su.se

Study counsellor

studievagledare.publichealth@su.se

Director of studies, basic and advanced level

jonas.landberg@su.se