



**LUND**  
UNIVERSITY

Faculty of Social Sciences

## **PSYP14, Psychology: Advanced Scientific Methods in Psychology, 15 credits**

*Psykologi: Avancerade vetenskapliga metoder i psykologin, 15 högskolepoäng*

**Second Cycle / Avancerad nivå**

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### **Details of approval**

The syllabus was approved by Management group for the International Master Programme in Psychology on 2020-02-06 to be valid from 2020-08-31, autumn semester 2020.

### **General Information**

The course is given as a mandatory course within the Master of Science Programme (120 credits) in Psychology and within the Master Programme in Human Resource Development and Labour Relations with focus on psychology (120 credits).

*Language of instruction:* English

*Main field of studies*

Psychology

*Depth of study relative to the degree requirements*

A1N, Second cycle, has only first-cycle course/s as entry requirements

### **Learning outcomes**

On completion of the course the student shall

#### **Knowledge and understanding**

- demonstrate an in-depth knowledge of contemporary research methods in psychology
- demonstrate an in depth understanding of research designs based on multiple variables, especially those in which latent variables play an important part
- demonstrate an in depth knowledge of advanced methods of data analysis that are currently employed in research in psychology, for instance multivariate methods

- demonstrate an in depth understanding of the relevance of inferential statistics, power, and effect size in evaluating the scientific importance of a given result
- demonstrate an in depth knowledge of how a research proposal in the discipline of psychology should be written

### **Competence and skills**

- demonstrate an in depth ability to independently construct a research design suited to a specific psychological issue
- demonstrate an in depth ability to independently use the necessary technical skills required to use common statistics programs to analyse advanced research designs
- demonstrate an in depth ability to independently use methodological concepts and methods of analysis, even in other fields of application, such as planning and evaluation as implemented in working life
- demonstrate the advanced skills required to independently determine which analytical method is suitable for the current research questions and design

### **Judgement and approach**

- demonstrate an in depth competence to independently and critically evaluate the scientific importance of a given result, based on inferential statistics, power, and effect size
- demonstrate an in depth ability to independently and critically identify and reflect on relevant social factors such as gender, class and ethnicity in relation to the themes and tasks that arise in the course
- demonstrate an in depth ability to independently and critically locate, integrate and evaluate scientific information in the discipline of psychology

## **Course content**

The course is comprised of three sub-courses.

### Sub-course 1. Data-analysis I (7.5 credits)

The sub-course aims to provide students with an overview of various advanced methods of data analysis and the statistical tools necessary to analyse current research in the discipline of psychology. The focus is primarily on multivariate analysis. The teaching includes theory and practice in analytical methods, in particular quantitative methods. of data analysis.

### Sub-course 2. Data-analysis II (4 credits)

The sub-course aims to give students an in-depth knowledge of the more advanced statistical methods that are currently used in research in the field of Psychology. The sub-course further aims to provide an insight into the processes associated with scientific publication, and an understanding of the ethical issues associated with research in this area.

The sub-course focuses on the provision and discussion of information necessary to critically assess research methods and findings.

### Sub-course 3. Linking theories and methods (3,5 credits)

This sub-course aims to link theories and methods by application of knowledge to generate new research questions and selection of appropriate tools to investigate them. The sub-course provides an insight into the processes associated with writing a successful research proposal.

## Course design

The teaching consists of lectures, exercises in methods of advanced analysis and seminars. Unless there are valid reasons to the contrary, compulsory participation is required in the seminars. Students who have been unable to participate due to circumstances such as accidents or sudden illness will be offered the opportunity to compensate for or re-take compulsory components. This also applies to students who have been absent because of duties as an elected student representative.

## Assessment

Assessment is based on home assignments (subcourse 1), a written exam (subcourse 2), a written research proposal (subcourse 3), and obligatory oral presentation of the written research proposal (subcourse 3). Three opportunities for examination are offered in conjunction with the course. Within a year of a major change or termination of the course, at least two further examination opportunities will be offered on the same course content. After that, students will be offered further examination opportunities but then in accordance with any changes that have been made to the course syllabus.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

*Subcourses that are part of this course can be found in an appendix at the end of this document.*

## Grades

Marking scale: Fail, E, D, C, B, A.

The highest grade is A and the lowest passing grade is E. The grade for a non-passing result is Fail.

The student's performance is assessed with reference to the learning outcomes of the course. For the grade of E the student must show acceptable results. For the grade of D the student must show satisfactory results. For the grade of C the student must show good results. For the grade of B the student must show very good results. For the grade of A the student must show excellent results. For the grade of Fail the student has shown unacceptable results.

Grade for the entire course is determined by the grades of the individual subcourses and is based on an average of the included grades (where A = 5, B = 4, C = 3, D = 2, and E = 1). In order to receive a grade of Pass (at least E) on the entire course, students must receive a grade of at least E on all sub courses.

At the start of the course students are informed about the learning outcomes stated in the syllabus and about the grading scale and how it is applied in the course.

## **Entry requirements**

To be eligible for the course the student must have been admitted to the Master of Science Programme (120 credits) in Psychology or the Master Programme in Human Resource Development and Labour Relations (120 credits), with a major in Psychology.

- Proficiency in English corresponding to English B/6 from Swedish upper secondary school can be demonstrated in one of the following ways:
- IELTS test with an average result of 6.5 and no section scoring less than 5.5
- TOEFL paper test with a result of 4.5 (max. 6) in the written part and a total result of 575; internet-based test with a result of 20 (max. 30) and a total of 90
- Cambridge/Oxford advanced certificate of proficiency
- Bachelor's degree from a university with English as the only language of instruction according to the International Handbook of Universities
- Pass in English B from a Swedish upper secondary school

## Subcourses in PSYP14, Psychology: Advanced Scientific Methods in Psychology

Applies from H20

- 2001 Data-analysis I, 7,5 hp  
Grading scale: Fail, E, D, C, B, A
- 2002 Data-analysis II, 4,0 hp  
Grading scale: Fail, E, D, C, B, A
- 2003 Linking theories and methods, 3,5 hp  
Grading scale: Fail, E, D, C, B, A