LUND UNIVERSITY

Graduate School

FACULTY OF SOCIAL SCIENCES

GRADUATE SCHOOL METHODS COURSES

SPRING 2021

SIMM32

Quantitative Methods: Multivariate Analysis

Version 1.0 – Spring 2021

1. WELCOME

Contact info

Graduate School
e-mail: master@sam.lu.se
Home page: graduateschool.sam.lu.se
Facebook: tinyurl.com/LUgradschoolFB

Student Union
Home page: samvetet.org

Lund University
Home page: http://lunduniversity.lu.se
The university is on Youtube, Facebook and Twitter

Welcome to the Spring term's course *Quantitative Methods: Multivariate Analysis.*

This course is aimed towards students who have some prior knowledge of quantitative methods and wish to further develop their understanding of, and ability to independently perform, statistical analysis of social science research questions. Some of the multivariate statistical techniques most commonly used within the social sciences are presented and practiced. The focus lies on the relationship between complex research questions and different multivariate statistical techniques.

Teaching includes lectures teacher assisted exercises in practical statistical analysis (computer lab work). Attendance is not compulsory but students are highly recommended to participate in as much as possible.

Formal learning outcomes for the course

On completion of the course, the student shall:

Knowledge and Understanding

- demonstrate knowledge of the multivariate statistical techniques most commonly used within the social sciences;
- demonstrate an understanding of the kind of research questions that each technique can be used to address;

Competence and skills

- exemplify skills in performing an analysis using the different techniques covered in the course, including but not limited to multiple regression analysis, logistic regression and factor analysis;

Judgement and approach

- be able to independently and critically reflect on the relationship between complex research questions and statistical techniques
- be able to independently and critically reflect on, and make informed decisions with regard to, core methodological issues the context of the application of the statistical techniques taught in the course

Assessment

Overview

Each statistical technique is examined separately in "lab reports". The concepts on which the lab reports are based are introduced in conjunction with respective lecture and designed as to be possible to finish within 1-2 days.

Examination

The course is examined individually through six lab-reports (one for each method, with the exception of SEM).

Lab reports

The lab assignments will be introduced by respective teacher and you will often start working on the assignments during the lab sessions, under teacher supervision. The assignments are not more extensive than that they should be possible to finish the day after, and students are encouraged to do so.

If you miss a laboratory session you have the option to either complete the assignment on your own or to submit a paper on the method in question, based on the literature. (Instructions for this are provided in box on next page.) You do however have to submit at least four lab reports (i.e. max two literature papers) in order to pass the course and the highest possible grade for a literature paper is C.

Upload your lab reports/paper in the designated folders on Canvas.

Complementary literature assignment

Write a short paper (roughly about 3 pages) about the method in question. Give an account of what you perceive as the most important aspects of that method but be sure to address the following:

When is this method appropriate? (What kind of research questions can be addressed?)

What are the prerequisites? (In terms of e.g. sample size, levels of measurement, relationship between variables etc.)

What are the major decisions that have to be taken along the way? What are the arguments for doing it one way or the other?

How do you evaluate the results? (How do you know when you are done?)

Upload the assignment in the folder intended for the method in question (e.g. Factor analysis)

Grades

Marking scale: Fail, E, D, C, B, A.
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 must have shown unacceptable results.

The overall course grade consists of the average grade of all assessed lab reports. For a grade of Pass on the entire course, the student must have been awarded at least E on all assessments for which the grading scale A–E+Fail applies.

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 on the course.

Re-examination opportunities

The course includes opportunities for assessment at a first examination, a re-sit close to the first examination and a second re-sit for courses that have ended during that school year. Two further re-examinations on the same course content are offered within a year of the end of the course. After this, further re- examination opportunities are offered but in accordance with the current course syllabus.

Plagiarism

All final papers will be automatically checked by software and by the graders to detect plagiarism of any sort. Plagiarism constitutes a severe offence in academia, as it means using another person's ideas without admitting to it. Please see appendix I in this guide for more information.

Your teachers

Nils Holmberg (course coordinator) has a doctoral degree in Media and Communication Science from Lund University in December 2016. The focus of his dissertation was to investigate the effects of web advertising on children aged 9-12 when they use the internet to solve different types of tasks, e.g. read and understand texts in an online newspaper. To investigate this, he used experimental methods to systematically vary the content and form of web ads. Physiological measuring equipment was then used to investigate how different advertising properties affected children's visual attention and ability to solve tasks online. In addition to providing in-depth knowledge of experimental methods and eye movement measurement, this dissertation also provided knowledge of the entire complex ecosystem that constitutes digital marketing.

Nils Holmberg
(course coordinator)
nils.holmberg@isk.lu.se

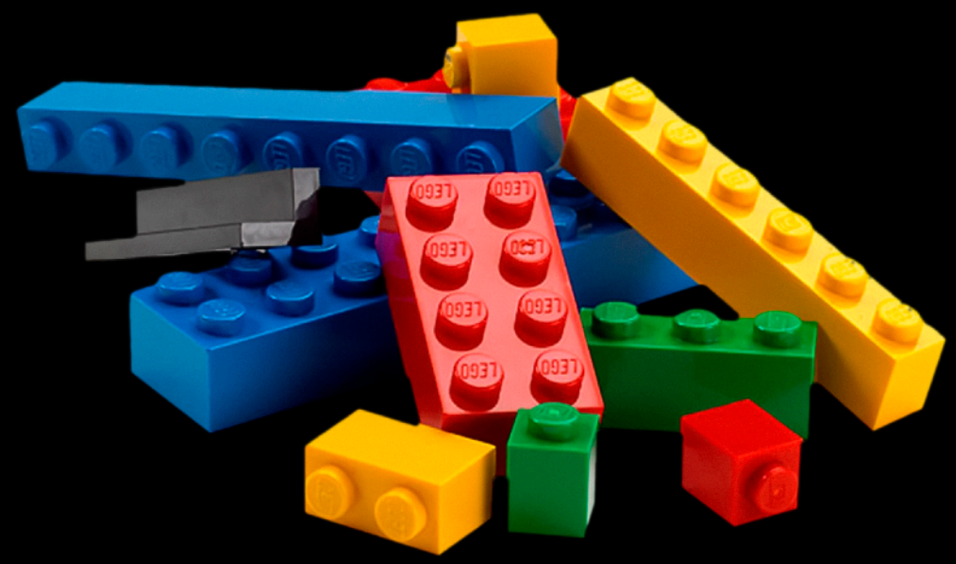
Zoltan Kekecs is an assistant professor at ELTE at the Institute of Psychology, and a part time associate professor at Lund University at the Institute of Psychology. His research is related to the application of psychological techniques in medical contexts, and to meta-science. He is a methodologist and member of the Data and Methods Committee of the Psychological Science Accelerator, a network of over 400 research labs aiming to conduct large, cross-cultural psychological research.

Zoltan Kekecs
zoltan.kekecs@psy.lu.se

COURSE RESOURCES

In this section we present the course literature and other course resources. This section is to help you to orient yourself in different types of readings and their functions in the course.

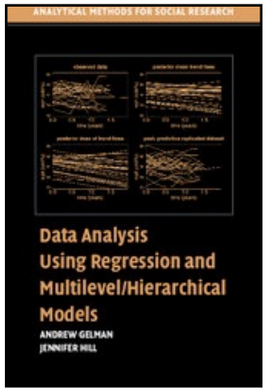
If download links fail, books and articles will be locatable via LUBSearch



Gelman, A., & Hill, J. (2006). *Data Analysis Using Regression and Multilevel/Hierarchical Models.* Leiden: Cambridge University Press.

From the blurb: This book originated as lecture notes for a course in regression and multilevel modeling, offered by the statistics department at Columbia University and attended by graduate students and postdoctoral researchers in social sciences (political science, economics, psychology, education, business, social work, and public health) and statistics. The prerequisite is statistics up to and including an introduction to multiple regression.

Advanced mathematics is not assumed—it is important to understand the linear model in regression, but it is not necessary to follow the matrix algebra in the derivation of least squares computations. It is useful to be familiar with exponents and logarithms, especially when working with generalized linear models.



(Chapter 11) 11 pages

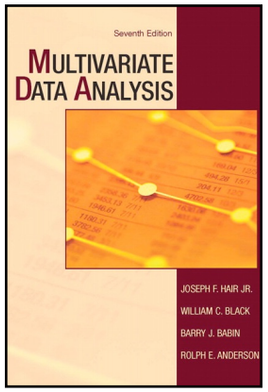
ISBN 9780521686891

Publisher info link

Hair, Joseph F. (2010) *Multivariate Data Analysis: a global perspective.* (7th ed.). Upper Saddle River N.J.: Pearson Education.

From the blurb: For over 30 years, this text has provided students with the information they need to understand and apply multivariate data analysis.

Hair et. al provides an applications-oriented introduction to multivariate analysis for the non-statistician. By reducing heavy statistical research into fundamental concepts, the text explains to students how to understand and make use of the results of specific statistical techniques.



approx. 500 out of 800 pages

ISBN 9780135153093

Publisher info link

Course Resources – Articles & Book Chapters (mandatory reading)

If download links fail, articles will be locatable via LUBSearch

1. Brambor & Roberts Clark: Understanding Interaction Models: Improving Empirical Analyses *Political Analysis* (2006) 14 (1): 63-82.
   Download from Canvas
2. Cohen, J. (1992). A power primer. *Psychological bulletin*, 112(1), 155-159.
   Download from Canvas
3. Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior research methods*, 39(2), 175-191.
   Download from Canvas
4. Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G* Power 3.1: Tests for correlation and regression analyses. *Behavior research methods*, 41(4), 1149-1160.
   Download here
5. (No. 1) Merlo et al.: A brief conceptual tutorial of multilevel analysis in social epidemiology: linking the statistical concept of clustering to the idea of contextual phenomenon. *J Epidemiol Community Health*. 2005 Jun; 59(6): 443–449.
   Download here
6. (No. 2) Merlo et al.: A brief conceptual tutorial on multilevel analysis in social epidemiology: investigating contextual phenomena in different groups of people.*J Epidemiol Community Health*. 2005 Sep; 59(9): 729–736.
   Download here

Course Resources – Books (recommended reading)

Angrist & Pischke: *Mostly Harmless Econometrics* (2009) Princeton University Press.
Publisher link

Aneshensel: *Theory-based Data Analysis for the Social Sciences* (2013) SAGE Publications.
Publisher link

Barmark & Djurfeldt (ed.). *Statistisk verktygslåda II: multivariat analys* (2009) Studentlitteratur.
Publisher link

Field: *Discovering statistics using SPSS* (2013) SAGE Publications
Publisher link

Harlow: The Essence of Multivariate Thinking (2014) London: Routledge
Publisher link

Course Resources – Articles (recommended reading)

Dimitrov & Rumrill: Pretest-posttest designs and measurement of change. *Work*. 2003;20(2) pp.159-65
Download here

Ioannidis: Why Most Published Research Findings Are False *PLoS Medicine* August 2005, Volume 2, Issue 8
Download here

Tufte: The Relationship between Seats and Votes in Two-Party Systems. *The American Political Science Review* Vol. 67, No. 2 (Jun., 1973), pp. 540-554
Download here

Tufte: Determinants of the Outcomes of Midterm Congressional Elections. *The American Political Science Review* Vol. 69, No. 3 (Sep., 1975), pp. 812-826
Download here

COURSE OVERVIEW

A detailed description of the course content, including work tasks.

Your course at a glance

TIME	COURSE ACTIVITY
3/5, 10-12	**Lecture** | Nils Holmberg Introduction
4/5, 10-12 & 13-15	**Lecture 1 + lab** | Nils Holmberg Multiple linear regression
7/5, 9-12 & 13-16	**Lab Assignment 1** | Nils Holmberg Multiple linear regression
10/5, 10-12 & 13-15	**Lecture 2 + lab** | Zoltan Kekecs Model comparison and model selection
11/5, 9-12 & 13-16	**Lab Assignment 2** | Zoltan Kekecs Model comparison and model selection
12/5, 10-12 & 13-15	**Lecture 3 + lab** | Zoltan Kekecs Regression with binary outcomes and special predictors
17/5, 9-12 & 13-16	**Lab Assignment 3** | Zoltan Kekecs Regression with binary outcomes and special predictors
18/5, 10-12 & 13-15	**Lecture 4 + lab** | Zoltan Kekecs Multilevel models
19/5, 9-12 & 13-16	**Lab Assignment 4** | Zoltan Kekecs Multilevel models
20/5, 10-12 & 13-15	**Lecture 5 + lab** | Zoltan Kekecs Repeated measures analysis
24/5, 9-12 & 13-16	**Lab Assignment 5** | Zoltan Kekecs Repeated measures analysis
25/5, 10-12 & 13-15	**Lecture 6 + lab** | Zoltan Kekecs Factor analysis (PCA)
28/5, 9-12 & 13-16	**Lab Assignment 6** | Zoltan Kekecs Factor analysis (PCA)
31/5, 10-12 & 13-15	**Lecture 7 + lab** | Nils Holmberg Structural Equation Modelling
1/6, 9-12 & 13-16	**Lab Assignment 7** | Nils Holmberg Structural Equation Modelling
4/6, 16.30-17.00	**Deadline** | Hand in
NB. Regularly check the course lesson plan online for potential schedule alterations and to locate relevant classrooms	

Course details

Lecture: Introduction

(lecture) | *Teacher:* Nils Holmberg

Overview of different multivariate techniques with focus on the methods covered in the course.

Primary reading

Hair et al, chapter 1

Lecture 1: Multiple linear regression

(lecture) | *Teacher:* Nils Holmberg

We will repeat the basic features of ”ordinary" regression (OLS) and learn how to develop a theoretically more sophisticated model by estimating curvilinear relationships and interaction effects.

Primary reading

Hair et al, chapter 4

Lab Assignment 1: Multiple linear regression

(lab) | *Teacher:* Nils Holmberg

We will learn the above method through hands-on exercises in SPSS and the lab assignment related to this method will be introduced.

Lecture 2: Model comparison and model selection

(lecture) | *Teacher:* Zoltan Kekecs

In this class we are going to learn how to compare different linear models to each other, and how to select the model that fits our purposes the best.

Primary reading

Hair Chapter 4: Multiple Regression Analysis

Brambor & Roberts Clark (2006)

Lab Assignment 2: Model comparison and model selection

(lab) | *Teacher:* Zoltan Kekecs

In the lab we will evaluate the effectiveness of different models and try to build effective predictive models, while avoiding overfitting.

Lecture 3: Regression with binary outcomes and special predictors

(lecture) | *Teacher:* Zoltan Kekecs

A form of regression analysis suitable when the dependent variable is binary will be discussed. Furthermore, we will learn how to model non-linear effects and interactions, and how to handle categorical variables as predictors.

Primary reading

Hair et al, chapter 7

Lab Assignment 3: Regression with binary outcomes and special predictor

(lab) | *Teacher:* Zoltan Kekecs

We will learn the above method through hands-on exercises in SPSS and the lab assignment related to this method will be introduced.

Lecture 4: Multilevel models

(lecture) | *Teacher:* Zoltan Kekecs

How to take into consideration if data comes from a sample where the observations are not independent from each other? We are going to explore this problem and find the statistical solutions.

Primary reading

Gelman, A., & Hill, J. (2006)

(No. 1) Merlo et al.

(No. 2) Merlo et al.

Lab Assignment 4: Regression with binary outcomes and special predictor

(lab) | *Teacher:* Zoltan Kekecs

In the lab we will practice how to build models on data that is "clustered", that is, observations are not independent.

Lecture 5: Repeated measures analysis

(lecture) | *Teacher:* Zoltan Kekecs

We will learn how to analyze data that has been collected on the same units over time (using regression analysis). This kind of analysis is often used in interventional studies, where we take measurements before and after the intervention to evaluate its effectiveness.

Primary reading

(The same as for multilevel models, since repeated measures analysis is just a special case of the multi-level problem.)

Lab Assignment 5: Repeated measures analysis

(lab) | *Teacher:* Zoltan Kekecs

In the lab we will practice analysing data that has been collected on the same units over time (panel data).

Lecture 6: Factor analysis (PCA)

(lecture) | *Teacher:* Zoltan Kekecs

Factor analysis is an interdependence technique, used to summarize the information contained in a large number of variables into a smaller number of factors. The focus will be on principal component analysis (PCA).

Primary reading

Hair et al, chapter 3

Lab Assignment 6: Factor analysis (PCA)

(lab) | *Teacher:* Zoltan Kekecs

We will learn the above method through hands-on exercises in SPSS and the lab assignment related to this method will be introduced.

Lecture 7: Structural Equation Modelling

(lecture) | *Teacher:* Nils Holmberg & Zoltan Kekecs

Structural equation models are often used to assess unobservable "latent" constructs. They often invoke a measurement model that defines latent variables using one or more observed variables, and a structural model that imputes relationships between latent variables. The links between constructs of a structural equation model may be estimated with independent regression equations.

Primary reading

Hair et al, chapter 11

Lab Assignment 7: Structural Equation Modelling

(lab) | *Teacher:* Nils Holmberg & Zoltan Kekecs

We will analyze a dataset using the SPSS AMOS software package. The dataset is a subset derived from the 2016 International Sponsorship Study (ISS 2016) conducted by researchers at Cardiff University. The example uses data from 123 English respondents and establishes whether animosity towards Germany and ethnocentrism are predictors of attitude (ATT) towards German automotive brand SMART.

Individual Examination

Upload: any remaining lab reports on Canvas

APPENDIX I

ACADEMIC WRITING AND PLAGIARISM

Academic honesty

Academic honesty means that you as an author are responsible for your work and that you must be able to support the statements you make. Likewise, citation and referencing must be done correctly and it is never allowed to copy, fabricate or manipulate your data. This means that everything you hand in has to be made and written by you and nobody else. If that is not the case you can be accused of plagiarism, a serious offence. The penalties for plagiarism at LU are for example suspension between 2 weeks and 6 months.

Plagiarism – and how to avoid it

If you copy, paraphrase or translate materials from websites, or library or other sources in your written assignments or thesis without giving full and proper credit to the original author(s), you are committing plagiarism. Accusations concerning plagiarism are taken very seriously and the consequences for your academic career and professional future may be disastrous, involving not only the loss of credit for courses in which the offence occurred, but even suspension for a certain time from your degree programme, not to mention having to live with a lingering reputation for dishonesty. Submitting the work of others as if it were your own is unacceptable. Plagiarism must be understood and avoided at all costs.

Students should expect to have their papers checked for plagiarism electronically. Whenever you use the words or ideas of others, fair academic practice requires that you identify your sources fully and accurately. Simply mentioning an author's work at the beginning of a paper does not mean that you are then free to copy or paraphrase from that work; specific references must be given each time you quote or paraphrase. The fair use of evidence from primary and secondary sources is the basis of academic discourse, and abuse of this fairness undermines the very nature of scholarly research. Although plagiarism is not always illegal (since copyright laws usually presume a financial motive), it is nevertheless a form of intellectual theft and fraud. By committing plagiarism you show disrespect for the fundamental values of the academic community.

If you find yourself in doubt about quotations or your use of sources, it is always a good idea to provide full information.

To learn more about LU policy about Academic honesty visit LUB's page on Academic conduct: libguides.lub.lu.se/mastersprogrammes/academicwriting

Tech system note

Urkund is an automated plagiarism control system used throughout the university. It is integrated in Canvas, and will warn you if its pattern-matching algorithms has been detected something suspect (warnings will appear in Canvas when you prepare to download student assignment texts.

APPENDIX II

PROCESSING STUDENT COMPLAINTS

It is actually relatively rare, but it does happen that students complain about what happens in a course to the point when it is hard to know what to do. The Faculty has set up a common process for these occasions, so both students and teachers know the options. In this appendix we present the faculty guidelines in full.

Processing of complaints from students concerning first and second cycle education at the Faculty of Social Sciences

The present document describes the processing of education-related complaints from students at the Faculty of Social Sciences.

Before students proceed with a complaint, they should find out what rules apply in various situations. Students' rights and obligations at Lund University (LU) are described in the List of students' rights (see link below). For example, the list describes what applies to the study environment, course syllabi and timetables, exams and assessment, degree projects and course evaluation. Another important document that governs education is the relevant course syllabus. It is also possible to obtain information by contacting the study advisor at the department.

Students with a complaint can primarily turn to the relevant lecturer/course director or to the programme director. In many cases the problem can be solved closest to where it arose. For further processing of a complaint, please see the flow chart below.

At LU there is a student representative to whom students with a complaint can turn for support and help. The student representative is not part of the University administration, but an independent party whose role is to support and guide the students' unions and the students in their case. The students can also obtain support and advice from the Social Sciences Students' Union. Support from the student representative or the Social Sciences Students' Union does not require membership in the students' union.

The flow chart below aims to clarify the work flow and contact people in cases of student complaints at the Faculty of Social Sciences. The fundamental principle is that a case is to be processed promptly, documented and registered according to the usual procedures. All student complaints that become cases are to be registered at LU (official document).

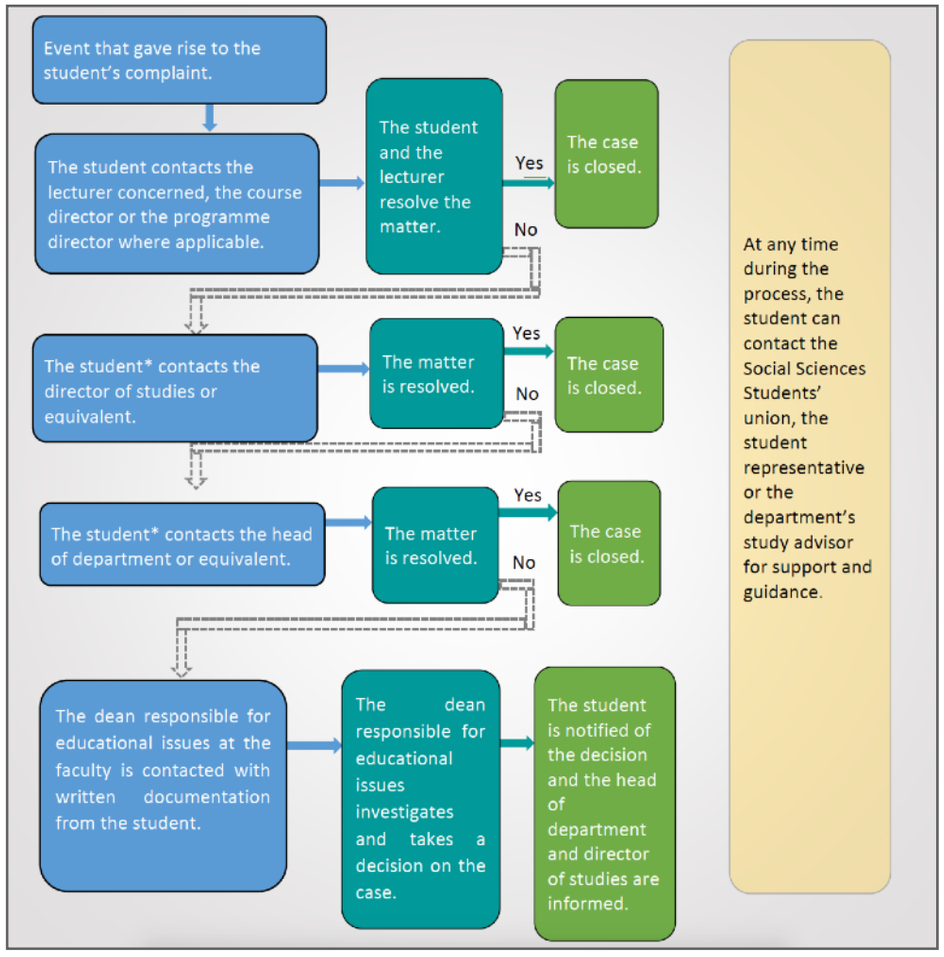
The description of the procedure does not prevent a student from appealing a decision pursuant to Chapter 12 of the Higher Education Ordinance (see below) or reporting LU to the Swedish Higher Education Authority. At LU, it is also possible to turn directly to the vice-chancellor according to guidelines approved on 12 March 2015 (see link below).

The procedure description/flow chart does *not* cover:

- Cases dealing with discrimination or harassment (pursuant to the Discrimination Act 2008:567 and the Work Environment Act 1977:1160). Information on where to turn for these issues is available separately (see link below).
- Cases that concern Chapter 12 of the Higher Education Ordinance: assessment of qualifications and admission, approved leave from studies, deferred entry, credit transfer of previous studies, requests for exemption from study components and applications for degree certificates. If the decision on such matters goes against the applicant, he or she can apply to the Higher Education Appeals Board. Information on how to do this is to be attached to the decisions.
- Disciplinary matters, that are to be processed by the vice-chancellor/disciplinary board (pursuant to Chapter 10 Section 3 of the Higher Education Ordinance).
- Changes to grading decisions (pursuant to information approved on 2 December 2015, see link below).

The present document is to be published on each department's website and information about the document should be disseminated to new students at the Faculty of Social Sciences in connection with course/programme introductions. The document was produced in collaboration with the Social Sciences Students' Union.

Processing of students' complaints at the Faculty of Social Sciences



* The lecturer or the director of studies concerned can also choose to take unresolved issues to the next level.

Relevant links

List of rights for students at Lund University
www.lunduniversity.lu.se/sites/www.lunduniversity.lu.se/files/list-of-rights-lund-university.pdf

Guidelines on handling complaints from students concerning first, second and third cycle studies at Lund University (LU central document regulating these matters). Document approved on 12 March 2015.

www.staff.lu.se/sites/staff.lu.se/files/guidelines-on-handling-complaints-from-students-concerning-first-second-and-third-cycle-studies-at-lund-university.pdf

How to process cases of discrimination or harassment
www.staff.lu.se/employment/work-environment-and-health/health-and-wellness/victimisation-and-harassment

Changes to grading decisions (official document approved on 2 December 2015).
sam.lu.se/internt/sites/sam.lu.se.internt/files/information_om_andring_av_betyg_-_2015-12-02.pdf

APPENDIX III

GRADUATE SCHOOL: A BRIEF HISTORY

An innovative organisational solution to the problem of managing and exploring interdisciplinarity is now a teenager, and an established part of the Faculty of Social Sciences.

A brief history

Graduate School's story began with a push for internationalisation at Lund University prompted primarily by Sweden's adoption of the *Bologna Process* regulations. In 2004, Sweden began the process of reforming the preexisting higher education structure to follow a common European model. The Bologna Process inspired a number of new developments here at the Faculty of Social Sciences. The Faculty Leadership sought to create two-year Master's programmes in accordance with Bologna regulations as well as creating international programmes and courses on the faculty level, and it was decided that the Faculty of Social Sciences should create international master programmes at the faculty level. There already were two international master programmes in existence at the faculty – Welfare Policies and Management and International Development and Management, but those belonged to the Political Science and Human Geography departments respectively. Coordinating master programmes at the faculty level was something that had not been done before.

An advisory board comprised of representatives, usually Directors of Study from nearly every subject at the faculty, was assembled to decide which subject areas should be chosen to become international programmes and courses that might best serve the needs and interests of Social Sciences students. The response to the proposed additions was positive, particularly from departments with lower student rates. A common, faculty level master programme could be more cost effective to run than one at a single department and could even offer courses in theory and method to not only its own programme students but also to students in smaller master programmes elsewhere within the faculty, thereby allowing departments to offer a wider variety of programmes to students.

Developing Interdisciplinarity

While the intention for the programmes to be international was a primary focus from the start, the interdisciplinary aspect of the proposed programmes came later.

The advisory board discussed the issue of how to create a faculty-wide, interdisciplinary master programme at length and decided that such programmes should be theory-based, designed to focus on a major – a primary field of study within the programme subject – and also require applicants to meet the eligibility requirements for their major. Fulfilling major requirements in one field on the bachelor's and subsequently the master's level would then allow a graduate to have the possibility to continue to a PhD.

11 different programme topics were suggested and of those, three were ultimately selected and are still the backbone of Graduate School today: the MSc Programmes in *Development Studies, Global Studies*, and *Social Studies of Gender*. These would be led by a Director of Studies with individual Programme Directors for each of the three programmes and a board made up of the departments participating in the interdisciplinary cooperation. Once the subject areas were decided upon, the advisory board for deciding upon faculty-level international master's education became the steering committee for the three new programmes. Among those in that committee was Kjell Nilsson, who became the first Director of Studies of Graduate School. Franz-Mikael Rundquist would become the Programme Director for Development Studies, Catarina Kinnvall the Director for Global Studies, and Sara Goodman the Director for Social Studies of Gender.

The name "Graduate School" was decided upon, with the intention that the name should communicate its offerings to international students, and to indicate that international master level programmes and courses as well as a few international PhD courses were available there.

Graduate School welcomed its first programme students in the Autumn of 2007. Located in the Eden building, Graduate School was made up of its Director of Studies Kjell Nilsson, two administrative staff, and 9 students in Social Studies of Gender, 26 students in Global Studies, and 23 students in Development Studies.

Although the general opinion towards the newly created international, interdisciplinary programmes and courses was enthusiastic, some at the faculty were still unsure about the idea of international programmes, particularly with regards to having to teach courses in English. Initially, Graduate School sought to incentivise potentially reluctant teachers to lecture on its courses by offering them a few more teaching hours, but as time went by Graduate School was able to find more and more teachers who simply enjoyed working with international students and teaching in English.

Director of Studies Kjell Nilsson's ability to network within the faculty, garner support for and subsequently structure three unique, ambitious interdisciplinary master programmes helped to bring the concept of Graduate School to life. He and the steering committee set the stage for the next level of development for the organisation. In this period, Kristina Jönsson became the new programme director for Development Studies.

In September 2010, Lena Örnberg took the reins as Graduate School Director of Studies. The numbers of programme students had decreased since the programmes' first year, which led to some criticism as to the perceived success of the interdisciplinary programmes. Lena sought to improve both the student experience as well as numbers of students in the programmes by placing emphasis on student events and administrative structure. Teaching and administrative staff would have increased contact, such as at teaching team wrap-up meetings at the end of courses, to create more cohesion between the two groups and to relieve teaching staff of unnecessary administrative tasks. The number of students began to grow and an additional third full time administrative position was added.

Finding (and Creating) a Physical Home

It was at this time that Graduate School moved from the Eden building to Gamla Kirurgen. There the programme would have its own classrooms and study area, separate from other departments. This fostered a feeling of "home" and a sense of belonging among Graduate School students. Events like programme introduction day, potlucks, fika, and information lunches that include both students and staff bring class cohorts together and familiarise them with staff, so students know who to turn to when in need of support.

Seeking to further improve structure and processes, the Graduate School team traveled to the University of Amsterdam in Spring 2011 to meet with colleagues there working with their interdisciplinary Master Programme in International Development Studies. While comparing programme structure and administrative processes with their Amsterdam colleagues, the Graduate School team were somewhat surprised (and pleased) to discover that their Dutch counterparts were impressed by Graduate School's thoroughness in interdisciplinarity. The difference was that the interdisciplinary focus was not limited to the makeup of the student body or the teachers – even the courses were interdisciplinary, down to mixed, interdisciplinary teaching teams on a single course. University of Amsterdam staff thought mixing teaching teams was incredibly ambitious and would not be possible at their university. Lena later remarked that this difference was a testament to the efforts made by the original steering committee that made a truly interdisciplinary Graduate School possible. This practice of interdisciplinary teaching teams continues at Graduate School today and is seen as a strength by staff and students alike.

A Maturing Organisation

By the time Lena left her post as Director of Studies in late 2014, student numbers had risen dramatically and a place in a Graduate School programme became highly sought after by international students. Around that time Lena left, programme directors Kristina Jönsson (Development Studies) and Sara Goodman (Social Studies of Gender) stepped down from their posts. Karin Steen took over for Development Studies and Rebecca Selberg took over for Social Studies of Gender. In 2017, Rebecca stepped down and the role has now been taken on by Marta Kolankiewicz.

After Lena's departure, the remaining admin team members successfully managed programme admissions until Mikael Sundström was installed as the new Director of Studies in the spring of 2015. Since then, Graduate School has looked for complementing ways to develop, further increasing its reach by way of communications material and processes and improved overall quality of courses, particularly methods courses. Programme and course guides and the very handbook you are reading now have been designed, reworked and reformulated to provide comprehensive information with a unique, signature style. Students are kept up to date with a bi-weekly *Newsflash* email with an overview of upcoming important Graduate School information as well as interesting events and activities around the faculty and the university.

In the last five years we have also been placing extra focus on our theory and methods courses offerings. A *Methods Director* position (currently held by Shai Mulinari after a productive stint by our current programme director Chris Swader) has been introduced to keep track of and develop the various courses in theory of science and methods. The aim is to further develop the quality, design, and variety of the method courses that are offered to Graduate School students as well as many other master and PhD students. In addition, we have set about documenting all available theory and method courses at the Faculty of Social Sciences, providing a clearer overall picture of the state of theory and method courses at the faculty.

A New Growth Period

In 2018 two momentous decisions were rendered. First, Graduate School would become the new home of the *Middle Eastern Studies* programme from 2019, with Rola El-Husseini as the designated Programme Director.

Second, Graduate School was to develop a brand new master programme, labelled *MSc in Social Scientific Data Analysis (SSDA)*, slated to start in 2021. Chris Swader is the designated Programme Director for the SSDA.

When these developments have concluded, Graduate School will have grown from 180 full-time student equivalents (*Helårsstudent*, HÅS) to 280!

Graduate School – Our House!

Graduate School is housed in what is now known as "the old surgery clinic" (Gamla Kirurgen). Our two lecture halls (236 & 240) used to be ten-bed wards with an observation room (238) and pantry (237) sandwiched in-between. From the observation room, nurses could keep a watchful eye on recovering patients through two windows that have since been removed. The Student Lounge still has a vaguely religious look to it, and was indeed used as a church room in the past.

In 1868, the house we now inhabit finally opened for business as Lund's main open surgery clinic. The famous and prolific architect Helgo Zettervall designed the building's late gothic style, and although it has undergone substantial renovations in 1905, 1928 and 1978, many of his original ideas remain intact. The most notable changes in the intervening years was probably the installation of many more windows than Zettervall had opted for, and the wing extensions to increase floorspace.

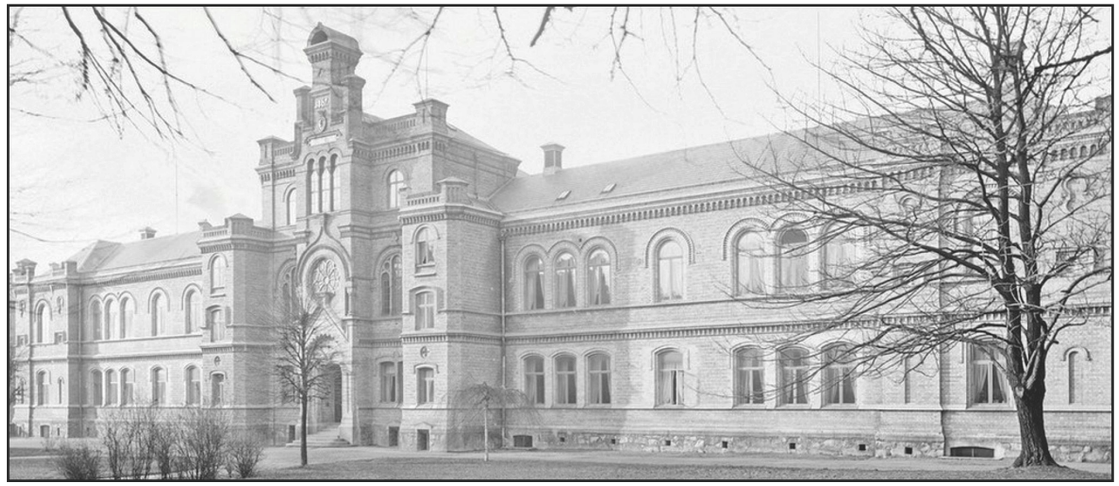
Inside, changes have been much more far-reaching. Among other things, what is now the stairwell in the third floor used to be the very heart of the building as it housed the central operation theatre.

When the hospital moved to its current location in the 1970s, the old buildings were transferred to Lund University which urgently needed more space. The open surgery clinic itself was handed over in 1972, and was at that point listed as an architectural heritage structure to prevent potentially intrusive changes (this status was removed in 2005).

Helgo Zettervall (1831–1907)

Renowned architect who designed the open surgery clinic along with many other buildings around Lund, including the main university building

Over the years, the building has housed a range of University units, notably the "UB3" University Library branch on the top floor. Today it is predominantly a social science building, with the central Faculty Administration, the International Office, Graduate School and the School of Journalism as main anchors. The 150-year old is still going strong!



Picture of the surgical clinic by Per Bagge in 1906. Reproduction: University Library, Lund University.

Important!

We ask all students to take note of the emergency exits (see below), and to be prepared to guide students to the assembly area at the *front* of the building in case of a fire or other hazard demanding evacuation.