Course curriculum for EDSD Statistical Demography

1. General information
1. Name: Statistical Demography
2. Level: Doctoral level
3. ECTS Credit points: 7.5

2. Course placement within the educational system
1. Subject: Demography
2. This is a doctoral level course and is mandatory in the Master programme in Demography.
3. The course is offered in English.

3. Learning outcomes
On a general level the student shall acquire practical knowledge of statistical approaches using various data types. Specifically students will be able to:
   - individually discuss and calculate the hazard models presented in section 4.
   - select the appropriate hazard models and apply them to real-world demographic data
   - understand the issues relevant in dealing with unobserved heterogeneity
   - understand the methods used in the creation and analysis of duration datasets

4. Course content
The course will deal with so called event history models. These are statistical techniques to analyze the occurrence of events in time, such as death, marriage, childbirth, entry into retirement etc. We will cover the following topics:
– Characterizing duration distributions and common parametric families
– Observation schemes: censoring and truncation
– Nonparametric approaches
– Basic hazard regression (proportional hazards)
– The Cox PH model, model diagnostics
– Discrete-time hazard regression
– The piece-wise constant hazard model; aggregate event-data
– Non-proportional hazards models
– Unobserved heterogeneity, repeated events, competing risks, multistate models

5. Teaching and assessment
The course is designed as a series of lectures and seminars. Grading is based on individual performance, via written assignments, oral presentation as well as group activities.

The University views plagiarism very seriously, and will take disciplinary actions against students for any kind of attempted malpractice in examinations and assessments. Plagiarism is considered to be a very serious academic offence. The penalty that may be imposed for this, and other unfair practice in examinations or assessments, includes suspension from the University.

6. Grading scale
Grading on the programme is based upon the ECTS scale. This means that in order to pass a certain course or assignment a student has to get the mark A, B, C, D or E, where A is the highest possible mark. Students who fail an assignment will get the mark F. In very general terms, the different grades represent the following quality of work:

A	Excellent	The achievement clearly distinguishes itself and is excellent with regards to theoretical depth, practical relevance, analytical ability and independent thought.
B	Very good	Very good. The work shows a very good ability of theoretical depth, practical application, analytical skill and independent thought.
C	Good	The achievement lives up to expectations and is of a good standard when considering theoretical depth, practical relevance, analytical ability and independent thought.
D	Satisfactory	The result is satisfactory on most levels, but has some weaknesses with regards to the above mentioned aspects.
E	Sufficient	The performance satisfies the minimum requirements, but not more.
F	Fail	The result is not satisfactory enough.

7. Prerequisites

General prerequisites for the Master programme in Demography

8. Literature

See separate document.