

# Ph.D. in "Life Course Research" – Socio-demographic curriculum

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## Fundamentals of demography

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### Objectives

The aim of the course is to introduce students to the basics of demographic analysis. The approach will be descriptive, with a focus on sources. The five main areas of analysis will be: 1) population growth and structure; 2) fertility; 3) nuptiality; 4) mortality; 5) migration. These areas will be analysed both separately and jointly (e.g. stable populations, population projections). Excel will be our main working software.

### Program

#### *Monday:*

- Constant vs variable growth rates (logistic curve). Age pyramids, synthetic indices of ageing, IG. Gross and age-specific rates. Direct and indirect standardization.

#### *Tuesday:*

- Lexis Diagram. Fertility. TFR vs b. "tempo-adjusted" TFR. Princeton's indexes (If, Ig, Ih, Im). Status-specific TFR (e.g by marital status). Own children method. Sources: UN, Human Fertility Database. Nuptiality: age-specific rates and TNR. Proportion ever married. Hajnal's SMAM.

#### *Wednesday:*

- Mortality. Life tables: construction and use. Abridged life tables. Contribution of ages/causes of death to survival progress. Sources: UN, HMD. Stationary populations. Model life tables.

#### *Thursday:*

- Migration: Sources and measures. Population projections, with and without migration: the cohort component model.

### Suggested lecture

Any demographic textbook.

### Requirements

Basic knowledge of statistics and EXCEL.