

**Demographic Methods**  
**FCS 5120/6120**  
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Demography is the study of population change and structure and its causes and consequences. To understand a population you generally must examine three basic processes: fertility, mortality, and migration. When you consider factors affecting marriage, kinship/family, employment, and health, and you are well on your way to having a better understanding of demography and how and why populations change.

This course presents the principle techniques used by demographers to study populations. While this is a ‘methods’ class with a fair bit of statistical material (all of these statistical concepts are explained as part of the class), I will be showing how these methods are used in applied real-world situations, both in the developed (contemporary and historical) and developing worlds.

*The centerpiece of the class is survival analysis* (life tables, Kaplan-Meier, Cox proportional hazards, Parametric Models, frailty, non-proportional models, time-varying covariates). We will be using SAS and Stata software.

This class satisfies the University’s QI requirement. **I assume you have statistical training up to multiple linear regression.**

The course covers these topics:

- Age-Specific Rates and Probabilities
- The Life Tables and Mortality
- Fertility and Reproduction
- Population Projections
- The Stable Population Model and Model Life Tables
- Survival Analysis