

课 程 大 纲

课程编号: 02814990

授课对象: 研究生

课程名称: 生存和历史事件分析

英文名称: Survival and Event History Analysis

周学时/总学时: 3/36

学 分: 2

任课教师: Li, Bobai & Zhang, Yanlong

开课学期: 2013 春

先修课程:

任课教师联系方式:

Li, Bobai: New GSM Room 441, Tel: 6275-6267 (libb@gsm.pku.edu.cn)

Zhang, Yanlong: New GSM Room 313, [Tel:6276-7926](tel:6276-7926) (yanlong.zhang@gsm.pku.edu.cn)

辅导、答疑时间:

Li Bobai: Wednesday 2:00-4:00PM, or by appointment

Zhang, Yanlong: Friday 2:00-4:00PM, or by appointment

一、 项目培养目标

学习目标 1 系统掌握从事学术研究所需要的专业知识及理论。

具体目标 1、系统掌握本学科基础知识及基本理论

具体目标 2、掌握本学科前沿知识和理论、具有足够的相关领域的知识

具体目标 3、熟练掌握本学科的研究方法

学习目标 2 具有从事创新性研究的能力;能够撰写并发表高质量的毕业论文和学术论文

具体目标 1、撰写高质量的毕业论文和学术论文

具体目标 2、具有高水平的分析能力和批判思维能力,能够创造性地解决问题

学习目标 3 具有宽阔的国际视野,能够与国际学者进行交流、合作的能力。

具体目标 1、具有优秀的口头交流和文字交流能力

具体目标 2、能够熟练地运用至少一门外语进行学术交流与沟通

学习目标 4 了解学术伦理,具有强烈的社会责任感、关注社会问题

具体目标 1、了解社会责任感的重要性

具体目标 2、了解学术生涯中的学术道德问题

具体目标 3、关注现实社会问题

二、课程概述

This course provides a mid-level introduction to the theories and applications of event history analysis. Event history analysis studies the occurrence, background, and timing of events, and during the last 20 years, it has become one of the most important

statistical methods in organizational and management research. The name “event history analysis” is used primarily by sociologists and political scientists to cover a range of methods referred to as survival analysis, duration analysis, and failure time analysis in other disciplines.

We will begin with a review of various regression models for categorical and limited outcomes (e.g., logit/probit models, ordinal and multinomial logit models, tobit and heckmen selection models). Depending on students' prior knowledge, our review may last two to four weeks before moving into event history data and related modeling strategies.

This course will cover modeling strategies for both continuous- and discrete-time event history data, which include non-parametric methods, semi-parametric models (i.e., Cox proportional hazard model), common parametric hazard models (e.g., exponential, Gombertz, and Weibull models), as well as discrete-time logit models. During the discussions of these methods, we will also emphasize practical topics like data management, graphical presentation, time-varying covariates, competing risks, and repeated event types.

Throughout the course, we will emphasize applied techniques and research applications, instead of mathematical and statistical theories. For each model, we will begin by introducing its working mechanisms, but move quickly to the estimation and interpretation of real data. We will also discuss a model's research applications by analyzing journal articles.

三、课程目标（包括学生所提高的技能要求），本课程目标如何服务于项目的培养目标

Students completing this course are expected to 1) understand the working of maximum likelihood estimation; 2) common statistical models for categorical and limited dependent variables; 3) time-related models and their applications in management research; and 4) advanced techniques in STATA software.

四、内容提要及学时分配

- Week 1. Maximum Likelihood Estimation, and Logit and Probit Models
- Week 2 Models for Ordinal Outcomes
- Week 3 Models for Multinomial Outcomes
- Week 4 Models for Limited and Truncated Outcomes
- Week 5 Poisson Regression for Count Data
- Week 6 Introduction to Survival Data, None-Parametric Methods
- Week 7 Semi-Parametric Hazard Models: Cox Regression
- Week 8 Parametric Hazard Models I
- Week 9 Parametric Hazard Models II
- Week 10 Parametric Event Time Models

- Week 11 Issues in Event History Modeling
- Week 12 Final Exam

五、教学方式

Lectures

六、教学过程中 IT 工具等技术手段的应用

PDF screen presentation

七、教材

- J. Scott Long. 1997. Regression Models for Categorical and Limited Dependent Variables Sage Publication.
- Hans-Peter Blossfeld and Go Rohwer. 2002. Techniques of Event History Modeling (2nd). Lawrence Erlbaum Associates, Publishers.
- StataCorp. 2005. Survival Analysis and Epidemiological Tables (Lease 9). Stata Press.
- Cleves, Mario, Roberto G. Gutierrez, William Gould, and Yulia V. Marchenko, 2010, An Introduction to Survival Analysis using Stata. Stata Press.
- Selected journal articles, lecture notes, and supplementary materials (TBD).

八、参考书目

九、教学辅助材料，如 CD、录影等

十、课程学习要求及课堂纪律规范

Students should 1) read the assigned materials before every class and be fully prepared for class discussion; 2) attend every class and actively participate in class discussion; and 3) turn in assignments by deadline; late assignments will not be graded unless permission is granted in advance under special circumstances.

十一、学生成绩评定办法（需详细说明评估学生学习效果的方法）

- Class Participation (10%)
- Homework Assignments (60%) ---There will be six homework assignments. Homework problems include statistical theories, data management, data analysis and interpretation, and evaluation of empirical studies.
- Final Exam or Final Paper (30%) ---In the end of the course, each student is required to submit an empirical paper using any models we discuss. Students are advised to decide on research topics and acquire appropriate data as early as possible. Those who do not have a research topic can choose to take a final exam.

