**《语言统计》课程教学大纲（2020版）**

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| 课程基本信息（Course Information） |
| 课程代码（Course Code） | FL2339 | \*学时（Credit Hours） | 32 | \*学分（Credits） | 2 |
| \*课程名称（Course Name） | （中文）语言统计 |
| （英文）Statistics for Language and Linguistic Research |
| 课程类型 (Course Type) | 必修 |
| 授课对象（Target Audience） |  |
| 授课语言 (Language of Instruction) | 双语 |
| \*开课院系（School） | 外语学院 |
| 先修课程（Prerequisite） |  | 后续课程(post） |  |
| \*课程负责人（Instructor） | 徐旴 | 课程网址(Course Webpage) |  |
| \*课程简介（中文）（Description） | 统计学方法的重要性在语言和语言学的研究中日益彰显。理解和掌握对语言数据进行统计分析的方法已成为研究者的一项必要技能。本课程将向学生介绍统计学的基本概念与原理，语言研究中所涉及的描述与推断统计的基本方法，以及假设检验在探索语言或语言学现象之过程中的应用。前半部的具体课程内容涵盖统计学基本概念与原理：包括频率分布与概率，数据的集中趋势与变异程度，以及样本与总体的关系。之后，在此基础上，课程将介绍常用的语言数据分析的方法， 包括方差分析，相关，聚类，等等。课程知识将通过讲授、演示、和阅读材料分析的方式传授。学生将通过反思性讨论和软件操作的方式加深理解和掌握相关技能。同时，课程将采用项目实践的考察方法，鼓励学生将习得的统计知识与技能用于解读和阐释其专业学习或生活中所遇到的语言现象和问题。 |
| \*课程简介（英文）（Description） | Statistical methods have become increasingly more important in language and linguistic research. The ability to understand, perform, and evaluate statistical analysis of empirical data is now an essential part of the skill set for language and linguistic researchers. This course covers the basic concepts in statistics, presents descriptive and inferential statistical methods commonly used in the field, and introduces hypothesis testing as an approach of scientific investigation into language and linguistic phenomena. Specific topics include frequency distribution and probability, measures for central tendency and variability, the relation between sample and population, and common statistical testing methods on the relations of various aspects of language and linguistic data, including analysis of variance, correlation, clustering, etc. Course content is presented through a combination of lectures, demonstrations, and readings. Students develop their skills through reflective discussions and hands-on practices. In addition, the course also aims to promote among language majors applications of statistical methods to analyze and address questions related to their knowledge and experiences.  |
| 课程目标与内容（Course objectives and contents） |
| \*课程目标 (Course Object) | 1. Understand basic concepts in descriptive and inferential statistics, and read and present data in tabular and graphic formats.
2. Identify and apply proper statistical analysis method to a research question, and compute basic and complex descriptive and inferential statistics using SPSS.
3. Interpret and present results of statistical analysis.
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| \*教学内容进度安排及对应课程目标 (Class Schedule & Requirements & Course Objectives) | 周 | 教学内容（要点） | 学时 | 教学形式 | 作业及考核要求 | 课程思政融入点 | 对应课程目标 |
| Week 1 | Introduction  | 2 | Lecture | Reading, software installation | Analytical skills | 1 |
| Week 2 | Frequency distribution, central tendency, and variability | 2 | Lecture, software demo and practice | Application | Attention to details | 1, 2 |
| Week 3 | Frequency analysis | 2 | Lecture, software demo and practice | Application | Analytical skills | 1, 2 |
| Week 4 | Normal distribution and z-score | 2 | Lecture, software demo and practice | Application | Mathematical reasoning skills | 1, 2 |
| ***Week 5*** | ***Knowledge check and application 1*** | 2 | Assessment, guided reading and discussion | Reflective self-learning | Awareness of real-life implications | 1, 2, 3 |
| Week 6 | Sampling distribution and hypothesis testing | 2 | Lecture, software demo and practice | Application | Mathematical reasoning skills | 1, 2 |
| Week 7 | *t*-test | 2 | Lecture, software demo and practice | Application | Analytical skills, attention to details | 1, 2 |
| Week 8 | ANOVA 1 | 2 | Lecture, software demo and practice | Application | Analytical skills, attention to details | 1, 2 |
| Week 9 | ANOVA 2 | 2 | Lecture, software demo and practice | Application | Analytical skills, attention to details | 1, 2 |
| ***Week 10*** | ***Knowledge check and application 2*** | 2 | Assessment, guided reading and discussion | Reflective self-learning | Awareness of real-life implications | 1, 2, 3 |
| Week 11 | Correlation analysis | 2 | Lecture, software demo and practice | Application | Analytical skills, attention to details | 1, 2 |
| Week 12 | *Chi*-square analysis | 2 | Lecture, software demo and practice | Application | Analytical skills, attention to details | 1, 2 |
| Week 13 | Cluster analysis | 2 | Lecture, software demo and practice | Application | Analytical skills, attention to details | 1, 2 |
| Week 14 | Regression analysis | 2 | Lecture, software demo and practice | Application | Analytical skills, attention to details | 1, 2 |
| Week 15 | Collocation strength analysis | 2 | Lecture, software demo and practice | Application | Analytical skills, attention to details | 1, 2 |
| ***Week 16*** | ***Knowledge check and application 3*** | 2 | Assessment, guided reading and discussion | Reflective self-learning | Awareness of real-life implications | 1, 2, 3 |
| 注1：建议按照教学周周学时编排。注2：相应章节的课程思政融入点根据实际情况填写。 |
| \*考核方式 (Grading) | Homework assignments: 24%Knowledge checks: 36%Course project: 40% |
| \*教材或参考资料 (Textbooks & Other Materials) | Recommended books: Rasinger, S. (2014). Quantitative Research in Linguistics. (2nd Ed.), Bloomsbury Academic. (ISBN10: 1441117229, ISBN13: 978-1441117229)Gravetter, F & Wallnau, L. (2017). Statistics for the Behavioral Sciences. (9th Ed.), Wadsworth: Cengage Learning. (ISBN10: 9781337098120, ISBN13: 978-1337098120) |
| 其它（More） |  |
| 备注（Notes） |  |
| 备注说明： 1．带\*内容为必填项。  2．课程简介字数为300-500字；课程大纲以表述清楚教学安排为宜，字数不限。 |