# Tentative Syllabus for LING 411: Linguistic Methodology

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Office Hours: by appointment

Class Hours: 
Mon, 15:00-17:00 on Zoom
Tue, 15:00-17:00 on Zoom

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## **Course Description**

The aim of this course is to help you become a capable and critical consumer of current methods of statistical inference. In this course, you will learn

- how to answer a research question empirically
- how to summarize data (descriptive statistics)
- how to find out to what degree a dataset warrants certain conclusions (inferential statistics)
- the use of the statistics software packages R (r-project.org) and Stan (mc-stan.org)

At the end of the course, you should be able to

- translate research questions into testable hypotheses or estimation problems
- conduct (some) statistical analyses in R/Stan/brms, and interpret their results

## Course Structure and Grading

- Attendance and participation. Attendance and participation will account for 10% of your course grade. Please actively participate in class.
- **Readings.** Please read the assigned chapters for each week. After reading the assigned readings, please confirm that you have done so on moodle. Doing so will contribute 10% of your grade. (But keep in mind that if you confirm that you've read the assigned readings, I may ask you questions about them!)

- **Assignments.** There will be programming or writing assignments on most weeks. The quality of the submitted solutions will determine 40% of your grade.
- Final project & term paper. The final 40% of the grade will be based on a final project.

### Readings

In this course, we will draw on some the following literature:

- Bodo Winter (2019). Statistics for Linguists: An Introduction Using R. Routledge.
- Ben Lambert (2018). A Student's Guide to Bayesian Statistics. SAGE Publications Ltd.
- McEreath, Richard (2016). Statistical Rethinking: A Bayesian course with examples in R and Stan. CRC Press.
- Podesava, Robert J. & Sharma, Devyani (2013). Research Methods in Linguistics. Cambridge University Press.
- Kruschke, John K. (2015). Doing Bayesian Data Analysis. Academic Press.
- Lecture Notes

## **Additional Readings**

## **Course Policy**

- Please make sure that you have access to a computer with a copy of RStudio (https://www.rstudio.com/products/rstudio/download/). If you do not, please reach out to me for alternative arrangements.
- Please switch off your phones, or set them to silent mode.
- During class, please keep your camera on, with or without a Zoom background. If you have a reason for switching it off, please let me know that such a reason exists, and whether it will be ongoing or temporary. I don't need to know what the reason is.)
- Don't cheat and try to learn stuff.

#### **Tentative Schedule**

Week 2, 30.09 - 04.10: Introduction to Empirical Research in Linguistics

reading: In Podesva & Sharma (2013): Chapter 3 (Schütze & Sprouse), Chapter 7 (Abbuhl, Gass, Mackey)

on-line tutorial: https://osdoc.cogsci.nl/3.2/tutorials/beginner/

#### Week 3, 07.10 - 11.10: Introduction to Empirical Research in Linguistics (cont'd)

reading: In Podesva & Sharma (2013):

Chapter 8 (Kaiser)

Chapter 13 (Gries & Newman)

#### Week 4, 14.10 - 18.10: Introduction to R

reading: In Podesva & Sharma (2013):

Chapter 14 (Johnson)

interactive tutorial: https://campus.datacamp.com/courses/free-introduction-to-r

Week 4, 21.10 - 25.10: t.b.a.

Week 5, 28.10 - 01.11: t.b.a.

Week 6, 04.11 - 08.11: t.b.a.

Week 7, 11.11 - 15.11: t.b.a.

**Week 8, 18.11 - 22.11:** t.b.a.

Week 9, 25.11 - 29.11: t.b.a.

Week 10, 02.12 - 06.12: t.b.a.

Week 11, 09.12 - 13.12: t.b.a.

Week 12, 16.12 - 20.12: t.b.a.

Week 13, 23.12 - 27.12: t.b.a.