

Statistics for Linguistics using R – HS 2024
Syllabus - !subject to change!

Instructor: Sandra Auderset (Office B163) sandra.auderset@unibe.ch

Time and Place: Wednesdays 10:15-12:00 in F-102

#	Date	Topics	Readings	Hand in
1	18.09.	Introduction to statistics; class organization	Levshina 2015: Ch. 1 Stigler 2016: Introduction	
2	25.09.	Intro to R and basics of program- ming with tidyverse; data organiza- tion	Winter 2020: Ch. 1 & 2 Stigler 2016: Ch. 2	Install R and RStudio
3	02.10.	Descriptive statistics; models and distributions; Homework discussion	Levshina 2015: Ch. 3 & 4 Winter 2020: Ch. 3 Stigler 2016: Ch. 1	homework 1 (Oct 1 st !)
4	09.10.	p -values and significance testing	Levshina 2015: Ch. 5 Winter 2020: Ch. 10 Stigler 2016: Ch. 3	
5	16.10.	Regression I: Linear regression; Transformations	Winter 2020: Ch. 4 & 5 Stigler 2016: Ch. 5	
6	23.10.	Regression II: Multiple regression, model selection	Winter 2020: Ch. 6 Stigler 2016: Ch. 7	homework 2
7	30.10.	Regression III: Multiple regression cont., Interactions	Winter 2020: Ch. 12	
8	06.11.	Regression IV: Generalized Linear Models; Final project discussion	Winter 2020: Ch. 13	
9	13.11.	Mixed models I: Introduction and concepts	Winter 2020: Ch. 14	homework 3
10	20.11.	Mixed models II: Applying mixed models and evaluating them	Winter 2020: Ch. 15	
11	27.11	Mixed models III: Use cases	Gries 2015; Coupé 2018; Kang 2019	project pro- posal
12	04.12.	No Class (Sandra not here): Take- home exercise on Mixed Models	--	
13	11.12.	Classification trees and random forests I	Levshina 2015: Ch. 14	presenta- tions group 1
14	18.12.	Classification trees and random forests II	--	presenta- tions group 2

Evaluation:

- homework: 30% (10% each)
- project proposal: 10%
- presentation: 10%
- final project: 50%

Readings, homework and attendance policies:

- Readings are mandatory and should be completed before class.
- I don't take attendance, but since the class is hands-on, I recommend consistent attendance. If you miss a class, it is your responsibility to catch up. You can make an appointment with me to clarify outstanding questions before the next session.
- Homework is due before class on the respective due date (check the assignment sheet). It should be submitted on ILLIAS.

Course books:

Levshina, Natalia. 2015. *How to do linguistics with R – Data exploration and statistical analysis*. John Benjamins

Stigler, Stephen M. 2016. *The seven pillars of statistical wisdom*. Harvard University Press

Winter, Bodo. 2020. *Statistics for linguists – An introduction using R*. Routledge