

# STATISTICS FOR LINGUISTS

LIN 4930-2570; LIN 6932-2573

SYLLABUS - SPRING Semester 2018

**Classroom & time:** M, W, F 5<sup>th</sup> periods WEIL 0408E (11:45am-12:35pm)

**Instructor:** Dr. Edith Kaan

Office: 4127 Turlington Hall.

Office Hours (subject to change): Wednesdays 9:35-10:25am; Thursdays 3:00-3:50pm;  
and by appointment.

Phone: 352 294 7453 (leave a message); E-mail: kaan@ufl.edu

**Prerequisites:** *Undergraduates:* LIN3010; *Graduates:* None

## Course description:

This course gives an introduction to concepts of probability and statistics, with examples chosen mainly from linguistics. Topics include descriptive statistics, comparing means, regression, T-tests, linear mixed models, and basic experimental design.

## Objectives:

- To learn how to interpret, evaluate, and write statistical results sections in linguistic research papers.
- To learn how to do basic data manipulation and statistical tests using R

## Text book:

- Urdan, Timothy C. (2010). *Statistics in Plain English*. 3<sup>rd</sup> edition. Routledge. ISBN 978-0-415-87291-1
- Other readings (journal articles, manuals) may be assigned over the course of the semester; these readings will be available through uflib.ufl.edu, e-reserves or the course website.

## Software:

Excel (Microsoft office); R ([www.r-project.org](http://www.r-project.org)); R-studio ([www.rstudio.com](http://www.rstudio.com)).

## Course website:

Course materials (reading, lecture notes, syllabus, etc.) will be made available on the Canvas website on E-learning ([elearning.ufl.edu/](http://elearning.ufl.edu/)). **Deadlines and grades** will also be posted on the website. You are responsible for checking the site regularly and for letting the instructor know *promptly* if anything is unclear, or if your grade has been entered incorrectly.

**Overall grade.** The weighting of the various requirements in the final grade is

	Graduates	Undergraduates
Homework and in-class assignments	23%	38%
Tests (2 tests and final)	60%	60%
Critique paper + data set analysis	15%	N/A
Active participation	2%	2%
Optional: Participation in LIN/SLHS experiments (or alternative assignment)	2% extra credit	2% extra credit

The course grading scale is:

A = 90-100   B = 80-83.9   C = 70-73.9   D = 60-63.9

A- = 87-89.9   B- = 77-79.9   C- = 67-69.9   D- = 57-59.9

B+ = 84-86.9   C+ = 74-76.9   D+ = 64-66.9   E = < 56

For UF grading policies for assigning grade points, see:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

### **Requirements and assignments:**

#### **GRADUATE STUDENTS ONLY**

##### **Paper critique and analysis report**

- Summary of a published paper on linguistic research using statistical tests
- The summary should include a detailed discussion of the statistical tests used, their appropriateness, the appropriateness of reporting, and an evaluation of how the authors interpret the results from the test. Detailed instructions will be provided in class.
- In addition, you may be getting a new data set which you will be asked to analyze and report the results from
- Due: in the last week of the semester.

#### **ALL STUDENTS**

##### **Homeworks and in-class exercises**

- Homework and in-class assignments are due every 1-2 weeks.
- Some of the homeworks may involve extra assignments for graduate students
- Made available through Canvas
- Homeworks should always be submitted individually

##### **Tests**

- There will be three tests over the course of the semester
- These tests are non-cumulative, although basic knowledge is assumed of what has been dealt with earlier in the semester (especially concerning R).
- Tests should always be submitted individually

##### **Active participation**

- Contributing to discussion in class
- Coming to class prepared
- Actively helping others understand the concepts and problems in class

##### **Participation in LIN/SLHS experiments (optional, extra credit).**

To encourage awareness of different aspects of experimental research in language-related fields, you can elect to participate in 2 hours of language or communication research during the semester. A list of experiments that qualify for this credit can be found at <http://slhs.php.ufl.edu/student-info/participant-pool-2/>. This site will be updated throughout the semester. Please retain a copy of the IRB form as proof that you participated. You need to have participated in 2 hours of experiments before April 9 for you to receive credit. This assignment will be worth a maximum of 2% of your course grade. If you choose not to participate or do not qualify for any of the studies, you can receive the same amount of course credit for reading a short research article (provided by the instructor) and writing a 2 page synopsis. This paper must be turned in no later than April 9, 2018. If you are currently enrolled in other classes that require

participation in experiments, and your total participation requirement exceeds 4 hours this semester, please see the instructor.

**Policies:**

- Emailing, web browsing, face-booking, texting, chatting and other cell phone or computer activity is not allowed during class unless this is part of the course assignments.
- Students are required to hand in all assignments and tests *before the beginning of the class period* they are due. Please contact the instructor *in advance* if you need to skip a class, or cannot make a deadline. Please also make sure you have at least one external backup of the assignments you make for this class. Computer problems will not be considered a valid excuse for missing assignments and test deadlines.
- Homework and exams that are not handed in before the deadline will be graded as “0 points”
- There will be no make-up exams, make-up assignments or extensions of deadlines without a documented medical or academic excuse.
- If you miss *more than 15 minutes of more than three class periods* without a documented medical or academic excuse, one point will be deducted from your final score for each additional time you are absent, leave early, or come late.
- See: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

**Academic honesty:**

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code.” On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code specifies a number of behaviors that are in violation of this code and the possible sanctions: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor.

**Accommodations for students with disabilities:**

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, [www.dso.ufl.edu/drc/](http://www.dso.ufl.edu/drc/)) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

**Health and wellness:** If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) or 352-392-1575 so that a U Matter We Care team member can reach out to the student in distress. In case of emergency, call 9-1-1.

**Course evaluation:**

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

**Schedule:**

The following schedule is an estimate of the course’s progress, with **approximate** dates of the tests. The instructor will let you know when the tests and assignment deadlines are exactly as they approach, and will keep you updated if we go off track. Please regularly consult **the schedule on the course website** for updates.

Overview of the course, Spring 2018 (subject to change!)

<b>Week/date</b>	<b>Topic</b>
1 – Jan 8-10	Introduction to the course and to R; Descriptive statistics
2 – Jan 17/19	Introduction to inferential statistics
3– Jan 22-26	Correlation; guest lecture on Friday
4 – Jan 29-Feb 2	Regression
5 – Feb 5-9	TEST 1
6 – Feb 12-16	Regression
7– Feb 19-23	T-test; guest lecture on Friday
8 – Feb 26-Mar2	Chi-square, graphing in R
9 – Mar 5-9	<b><i>NO CLASS</i></b>
10 – Mar 12-16	ANOVA
11 – Mar 19-23	TEST 2
12 – Mar 26-30	Mixed models
13 – Apr2-6	Mixed models
14 – Apr 9-13	Mixed models; experimental participation due
15 – Apr 16-20	Statistics: what it does and does not mean
16 – Apr 23-25	TEST 3; paper due (grads)