



UNIVERSITY OF  
CALGARY  
**Faculty of Arts**  
**School of Languages, Linguistics, Literatures and Cultures**

LING 660  
Quantitative Modeling of Linguistic Data  
Fall 2019  
TuTh 12:30-1:45  
Social Sciences 115

COURSE OUTLINE

**INSTRUCTOR'S NAME:** Stephen Winters

**OFFICE LOCATION:** Education Classrooms (EDC) 259

**OFFICE HOURS:** We 2-3

**TELEPHONE NUMBER:** 403-220-7230

**E-MAIL:** swinters@ucalgary.ca

**DESCRIPTION**

This course is an introduction to basic statistical concepts, methods of analysis, and quantitative modeling techniques, with a focus on their application to the unique properties of language research and linguistic data.

**OBJECTIVES**

The objective of the course is to enable students of linguistics to develop the skills necessary to scientifically analyze the quantitative results of their own research.

**OUTCOMES**

Students will learn how to conduct statistical analysis and how to present data by working with a statistical software package called R. They will also become proficient in writing up the results of statistical analysis in several formal homework assignments throughout the semester. Grad students in Ling 660 will also prepare a short term paper (5-10 pages) in which they expand upon the knowledge and analytical skills developed in the course by applying a statistical method to a novel set of linguistic data, or by learning a new statistical method for analyzing linguistic data and teaching the basics of that method to the rest of the students in the class.

**DISTRIBUTION OF GRADES**

**Homework** (75% of final grade)

**Final Project** (25% of final grade)

**GRADING SCALE**

$98\% \leq A+$	$78 \leq C+ < 80$
$92 \leq A < 98$	$72 \leq C < 78$
$90 \leq A- < 92$	$70 \leq C- < 72$
$88 \leq B+ < 90$	$68 \leq D+ < 70$
$82 \leq B < 88$	$60 \leq D < 68$
$80 \leq B- < 82$	$F < 60$



## Faculty of Arts

### School of Languages, Linguistics, Literatures and Cultures

#### REQUIRED TEXTS

Keith Johnson (2008), *Quantitative Methods in Linguistics*. Malden, MA: Blackwell Publishing.

#### RECOMMENDED TEXTS

Natalia Levshina (2015), *How to do Linguistics with R: Data exploration and statistical analysis*. Amsterdam: John Benjamins Publishing Company.

David S. Moore, George P. McCabe and Bruce A. Craig (2017), *Introduction to the Practice of Statistics*, 9<sup>th</sup> ed. New York: W.H. Freeman and Company.

#### COURSE NOTES

The course web page is located at:

<http://www.uofclinguistics.org/lingstats/>

All lecture notes, handouts and homework exercises—along with updated versions of this syllabus—will be posted to the course website. I will also be posting some materials (mostly lecture notes) to the D2L site for this course. Please check these sites on a regular basis if you are interested in having access to these materials.

Students are required to download R and install it on a laptop or device that they can bring to class. R is open-source and is freely available for a variety of computing platforms here: <http://www.r-project.org/>

#### ACADEMIC MISCONDUCT

1. **Plagiarism** is a serious offence, the penalty for which is an F on the assignment and possibly also an F in the course, academic probation, or requirement to withdraw. Plagiarism exists when:

- a) the work submitted or presented was done, in whole or in part, by an individual other than the one submitting or presenting the work (this includes having another impersonate the student or otherwise substituting the work of another for one's own in an examination or test);
- b) parts of the work are taken from another source without reference to the original author;
- c) the whole work (e.g., an essay) is copied from another source, and/or
- d) a student submits or presents work in one course which has also been submitted in another course (although it may be completely original with that student) without the knowledge of or prior agreement of the instructor involved.

While it is recognized that scholarly work often involves reference to the ideas, data and conclusions of other scholars, intellectual honesty requires that such references be explicitly and clearly noted."

Plagiarism occurs not only when direct quotations are taken from a source without specific acknowledgement but also when original ideas or data from the source are not acknowledged. A bibliography is insufficient to establish which portions of the student's work are taken from external sources; footnotes or other recognized forms of citation must be used for this purpose.

2. **Cheating** at tests or examinations includes but is not limited to dishonest or attempted dishonest conduct such as speaking to other candidates or communicating with them under any circumstances whatsoever; bringing into the examination room any textbook, notebook, memorandum, other written material or mechanical or electronic device not authorized by the examiner; writing an examination or part of it, or consulting any person or materials outside the confines of the examination room without permission to do so, or leaving answer papers exposed to view, or persistent attempts to read other students' examination papers.

3. **Other academic misconduct** includes, but is not limited to, tampering or attempts to tamper with examination scripts, class work, grades and/or class records; failure to abide by directions by an instructor regarding the individuality of work handed in; the acquisition, attempted acquisition, possession, and/or distribution of examination materials or information not authorized by the instructor; the impersonation of



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another student in an examination or other class assignment; the falsification or fabrication of clinical or laboratory reports; the non-authorized tape recording of lectures.

4. Any student who voluntarily and consciously aids another student in the commission of one of these offences is also guilty of academic misconduct.

**COPYRIGHT LEGISLATION**

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright (<https://www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright.pdf>) and requirements of the copyright act (<https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html>) to ensure they are aware of the consequences of unauthorised sharing of course materials (including instructor notes, electronic versions of textbooks etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy.

**FREEDOM OF INFORMATION AND PRIVACY (FOIP) ACT**

Graded assignments will be retained by the Department for three months and subsequently sent for confidential shredding. Final examinations will be kept for one calendar year and subsequently sent for confidential shredding. Said material is exclusively available to the student and to the department staff requiring to examine it. Please see <https://www.ucalgary.ca/legalservices/foip> for complete information on the disclosure of personal records.

**ACADEMIC ACCOMMODATIONS**

It is the student's responsibility to request academic accommodations according to the University policies and procedures listed below. The student accommodation policy can be found at: <https://www.ucalgary.ca/access/accommodations/policy>.

Students needing an Accommodation because of a Disability or medical condition should communicate this need to Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities (<https://www.ucalgary.ca/policies/files/policies/procedure-for-accommodations-for-students-with-disabilities.pdf>).

Students needing an Accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to their Instructor or the Department Head/Dean or to the designated contact person in their Faculty.

**FACULTY OF ARTS PROGRAM ADVISING AND STUDENT INFORMATION RESOURCES**

Have a question, but not sure where to start?

The Arts Students' Centre is the overall headquarters for undergraduate programs in the Faculty of Arts. The key objective of this office is to connect students with whatever academic assistance they may require.

In addition to housing the Associate Dean (Undergraduate Programs and Student Affairs) and the Associate Dean (Teaching, Learning & Student Engagement), the Arts Students' Centre is the specific home to:

- Program advising
- Co-op Education Program
- Arts and Science Honours Academy
- Student Help Desk

Location: Social Sciences Room 102

Phone: 403-220-3580

Email: [ascarts@ucalgary.ca](mailto:ascarts@ucalgary.ca)

Website: [arts.ucalgary.ca/undergraduate](https://arts.ucalgary.ca/undergraduate).

For registration (add/drop/swap), paying fees and assistance with your Student Centre, contact Enrolment Services at 403-210-ROCK [7625] or visit them at the MacKimmie Block.



## Faculty of Arts

### School of Languages, Linguistics, Literatures and Cultures

Contacts for the Students' Union Representative for the Faculty of Arts: [arts1@su.ucalgary.ca](mailto:arts1@su.ucalgary.ca), [arts2@su.ucalgary.ca](mailto:arts2@su.ucalgary.ca), [arts3@su.ucalgary.ca](mailto:arts3@su.ucalgary.ca), [arts4@su.ucalgary.ca](mailto:arts4@su.ucalgary.ca).

#### **INTERNET AND ELECTRONIC COMMUNICATION DEVICES**

Devices such as laptops, palmtops and smartbooks are allowed provided that they are used exclusively for instructional purposes and do not cause disruption to the instructor and to fellow students. Cellular telephones, blackberries and other mobile communication tools are not permitted and must be switched off.

#### **SUPPORT AND RESOURCES**

A link to required information that is not course-specific related to student wellness and safety resources, can be found on the Office of the Registrar's website: <https://www.ucalgary.ca/registrar/registration/course-outlines>.