



ST. JEROME'S UNIVERSITY

St. Jerome's University in the University of Waterloo
Department of Sexuality, Marriage, and Family Studies

SMF 230

Introduction to Statistics for Sexuality, Marriage, and Family Studies

WINTER 2019

Tuesday and Thursday

4:00 PM – 5:20 PM

Location: SJ2 2001

Instructor Information:

Instructor: Chris Quinn-Nilas

Office: SH 2110

Office Phone: NA

Office Hours: By request

Email: cquinni@uoguelph.ca

Correspondence with Instructor:

It is best to contact me via email or to come see me in person during office hours.

Email Protocol: when emailing, please include your first & last name and the course code in the subject line. Use your UWaterloo email address when contacting me through email – I will not reply to other email addresses (e.g., Hotmail accounts).

Email Responses: If you do not hear back from me within 48 hours (excluding weekends), please resend your message. This is NOT an indication that I am ignoring you; more likely, this suggests that I did not receive your email or that it got lost/buried in my inbox.

Course Description

In this course, students will be introduced to the fundamental components, logic, and execution of basic descriptive and inferential statistics commonly used in the social sciences. A major goal of this course is to familiarize students with the basic skills required to conduct quantitative analyses in the social sciences, and to understand the fundamentals of basic quantitative research articles. Current controversies and best practices for statistical analysis will be highlighted in this course, and the literature on sexuality, marriage, and family studies will be frequently drawn from to provide examples. Students will utilize commonly used statistical software and will gain firsthand experience conducting statistical analyses.

My Teaching Philosophy

I believe that good teaching is student-centered, and that good teachers prioritize the following: openness and approachability, active learning through creative teaching methods, and an accessible and accepting learning environment. Throughout this course, we will use examples

from the fields of sexuality, marriage, and family studies to illustrate statistics, and we will focus on both theory and practical instruction on how to perform statistical analysis.

Prereq: One of SMF 204, 206, PSYCH 236.

Antireq: ARTS 280, ECON 221, ENVS 278, ISS 250R, KIN 222, PSCI 214/314, PSYCH 292, REC 371, SOC/LS 280, STAT 202, 206, 211, 221, 231, 241

Course Goals and Learning Outcomes

By the end of this course, successful students will:

1. Possess a basic understanding of how statistics are used to investigate questions of interest in disciplines relevant to Sexuality, Marriage, and Family Studies.
2. Be able to read, understand, and interpret basic statistics.
3. Become critical consumers of statistical information presented in academic and non-academic contexts.
4. Understand how to evaluate and interpret statistics (Specifically, students will learn what statistics can tell us, what they cannot tell us, and how to apply a critical interpretation to statistical information).
5. Acquire knowledge of fundamental statistical concepts and simple statistical techniques that can be used to build an understanding of more complicated techniques in the future.

Required Readings

Field, A. (2018). *Discovering statistics using SPSS*, 5th ed. Sage publications.

Required Software

We will use IBM SPSS 25th edition throughout this class, and SPSS is **required** for you to complete the assignments. A 1-year student license of this software is included with your purchase of the Field (2018) textbook when purchasing the bundled version (the bundled version is the one I have ordered to the bookstore), and SPSS is also available for purchase online independent of the book.

Readings Available on LEARN

Throughout the course, information about additional readings (if applicable) will be posted on the course management site, Desire2Learn (D2L or LEARN).

Assessments

Assessment Type		Grade Value
Midterm	February 26	20%
Final Exam	TBA	30%
Data Analysis Assignment 1	February 12	20%
Data Analysis Assignment 2	March 26	25%
Critical Reflection	March 13	5%
Total		100%

Midterm

The midterm will occur during class time in our usual lecture space, and will consist of a mix of multiple choice and short answer questions. It covers concepts from weeks 1-5.

The midterm will only be rescheduled under very limited conditions; it is your responsibility to read and abide by the following:

1. You must notify me prior to the test if you are unable to write at the scheduled time due to medical or religious circumstances (or at minimum the day of the test). **Students who fail to notify me will receive a grade of ZERO on the test.**
2. You must provide appropriate documentation (see UW Policy Regarding Illness and Missed Tests - a UW Verification of Illness [VOI] form must be submitted) in order to have a test rescheduled.
3. Rescheduling is at the discretion of the course instructor. VOI dates will weigh heavily in this decision (i.e., do not expect to write a make-up test one week after your VOI form has expired). Tests will typically be scheduled within 2 days of the date on the form.

Final Exam

The final exam will occur during the scheduled exam period, the location and exact time will be provided later. It will consist of a mix of multiple choice and short answer questions assessing content primarily from weeks 6-13. The final exam in this course is noncumulative, however, many topics covered in this course naturally build upon one another. For example, the basics of null hypothesis significance testing are taught early in the course, and this is an integral part of every statistical analysis, including those that the final exam will focus on. The final is worth 30%.

Data Analysis Assignments

Two data-analysis assignments will be assigned in this course. These assignments will instruct students to independently perform statistical analysis to answer the assigned questions.

Assignments are to be completed independently. The first assignment is weighted at 20%; the second at 25%. Details will be provided in a separate file available on LEARN.

Critical Reflection

There will be one critical reflection assignment, which will encourage students to reflect on their experiences with statistics in the course. The critical reflection is weighted at 5%. Details will be provided in a separate file available on LEARN.

Course Schedule

I reserve the right to revise the schedule of lectures as needed, so long as you are given adequate notice. If class is cancelled (i.e., bad weather), all remaining lectures will be shifted appropriately.

	Date	Topic	Readings	Assessments Due
Week 1	Jan 8	Intro to the Course		

		Intro to Statistics in Research		
	Jan 10	Variable Measurement, Central Tendency and Dispersion Probability, the Normal Distribution and Z-Scores	Chapter 1	
Week 2	Jan 15	Variable Measurement, Central Tendency and Dispersion Probability, the Normal Distribution and Z-Scores	Chapter 1	
	Jan 17	Intro to SPSS Describing and Displaying your Data	Chapter 4 Chapter 5 (sections 5.1-5.4)	
Week 3	Jan 22	Describing and Displaying your Data Continued	Chapter 5 (sections 5.5-5.12)	
	Jan 24	Populations and Samples, Estimation, Statistical Models	Chapter 2 (sections 2.1-2.7)	
Week 4	Jan 29	Null Hypothesis Significance Testing (NHST), Confidence Intervals, Power Problems with NHST, Effect Size	Chapter 2 (sections 2.8-2.13) Chapter 3 (<i>do not</i> read sections 3.8 and 3.9)	
	Jan 31	Correlation	Chapter 8	
Week 5	Feb 5	Statistical Bias and Assumptions	Chapter 6	
	Feb 7	Dedicated SPSS Tutorial for Assignment 1		
Week 6	Feb 12	Midterm Review		Data Analysis Assignment 1 Due
	Feb 14	Regression	Chapter 9 (sections 9.1-9.8)	
Week 7	Feb 19-22	Reading week	Reading week	

Week 8	Feb 26	Midterm		Midterm
	Feb 28	Regression Continued.	Chapter 9 (sections 9.9-9.16; <i>do not read</i> sections 9.12 and 9.13)	
Week 9	March 5	Regression Continued.		
	March 7	Dedicated SPSS Tutorial Time		
Week 10	March 12	Comparing Means with T-Tests	Chapter 10	Critical Reflection Due
	March 14	Comparing Means with ANOVA	Chapter 12 (<i>do not read</i> sections 12.8 and 12.9)	
Week 11	March 19	Comparing Means with ANOVA Continued		
	March 21	Dedicated SPSS Tutorial for Assignment 2		
Week 12	March 26	Chi-Square and Categorical Data	Chapter 19	Data Analysis Assignment 2 Due
	March 28	Comparing Adjusted Means with ANCOVA	Chapter 13 (<i>do not read</i> sections 13.8 and 13.9)	
Week 13	April 2	Intro to Advanced Topics: Scale Reliability and Factor Analysis	Chapter 18	
	April 4	Choosing the Correct Statistical Test, Exam Review		

*Additional reading material may be added with adequate notice.

Late Assignments

All assignments are due to the online dropbox available on the course website. Late assignments will be accepted up to one week following the due date and with a flat penalty of 20% (e.g., 80%-20% = 60%). So, if you think you can earn a better grade by taking some extra time, do it. You don't need to email me. Submit your assignment to the online drop box on within one week of the due date. No questions asked.

When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor in writing, with your name, id#, and e-mail contact.

A Note on Plagiarism

Plagiarism is one form of academic misconduct. A student guilty of plagiarism, the use of another person's thoughts and writings as their own, may experience disciplinary action in the form of academic penalties. In order to avoid plagiarism, a student must adhere to the following procedures:

1. Every statement of fact not generally known, and every opinion which is not arrived at independently requires a reference to the literature being used.
2. All direct quotations (i.e., text taken directly from the source) must be in quotation marks, or if a certain length (e.g., 40 words or more) must be indented and single-spaced.*
3. Every quotation requires a reference, including page number.*
4. In summarizing another person's words, a student would need to use different words and change the sentence structure of the original statements. Such paraphrases must also, of course, be referenced (but no page numbers).*

** Comments pertaining to the formatting of citations and references are consistent with the APA referencing style (APA, 6th Ed.)*

Electronic Device Policy

In the spirit of creating a classroom environment conducive to listening and learning, I ask that you restrict your laptop use during lectures to note-taking and to silence your smartphones. In a shared learning environment, surfing, messaging, Instagramming, Facebooking, texting, tweeting, and other such endeavours are distracting to other students. Your respectful consideration of others is very much appreciated.

Attendance Policy

Simple attendance will not be directly evaluated or monitored; however, academic success and achievement of the course goals are facilitated by strong attendance.

Important Information

Academic Integrity: To maintain a culture of academic integrity, members of the University of Waterloo and its Affiliated and Federated Institutions of Waterloo (AFIW) are expected to promote honesty, trust, fairness, respect, and responsibility. See the [UWaterloo Academic Integrity](#) webpage [for more information](#).

Discipline: A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for their actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course professor, academic advisor, or the Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under the [St. Jerome's University Policy on Student Discipline](#). For information on categories of offenses and types of penalties, students should refer to [University of Waterloo Policy 71 - Student Discipline](#). For typical penalties check [Guidelines for the Assessment of Penalties](#).

Grievance: A student who believes that a decision affecting some aspect of their university life

has been unfair or unreasonable may have grounds for initiating a grievance. [Read the St. Jerome's University Policy on Student Petitions and Grievances.](#)

Appeals: A decision made or penalty imposed under the St. Jerome's University Policy on Student Petitions and Grievances (other than a petition) or the St. Jerome's University Policy on Student Discipline may be appealed if there is a ground. A student who believes they have a ground for an appeal should refer to the [St. Jerome's University Policy on Student Appeals.](#)

Note for Students with Disabilities: The [AccessAbility Services](#) office, located on the first floor of the Needles Hall extension (1401), collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the AS office at the beginning of each academic term.

Mental Health

On Campus

- Counselling Services: counselling.services@uwaterloo.ca / 519-888-4567 ext 32655
- MATES: one-to-one peer support program offered by Federation of Students (FEDS) and Counselling Services
- Health Services Emergency service: located across the creek from Student Life Centre

Off campus, 24/7

- Good2Talk: Free confidential help line for post-secondary students. Phone: 1-866-925-5454
- Grand River Hospital: Emergency care for mental health crisis. Phone: 519-749-433 ext. 6880
- Here 24/7: Mental Health and Crisis Service Team. Phone: 1-844-437-3247
- OK2BME: set of support services for lesbian, gay, bisexual, transgender or questioning teens in Waterloo. Phone: 519-884-0000 extension 213