

SOCIAL SCIENCES 2J03

Introduction to Statistics

Fall 2019

Instructor: Rizwan Tahir

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Office Hours: TBA

Lecture: C01 – Monday/Wednesday/Thursday, 13:30 – 14:20, MDCL 1309

C02 – Thursdays, 7-10 p.m., MDCL 1309

TEACHING ASSISTANT(S):

The name, office hours, and email address of the teaching assistant(s) will be posted on Avenue to Learn

COURSE DESCRIPTION:

This course introduces the basic concepts of statistics and inference. Students will: compute basic statistics; consider the principles used in data collection; consider the key properties and logic underlying significance tests and confidence intervals; apply some of the most commonly-used inference methods.

COURSE MATERIAL

Text:

Introductory Statistics, 9th edition by Prem S. Mann, Wiley, 2016

ISBN [9781119462040](#): this is the Book w/ WileyPLUS LMS Code for Integration.

Calculator (required for tests and exam):

Only the Casio fx-991 series calculator (available in the bookstore) may be used for tests and the exam.

Lectures:

The lecture slides will be made on the Avenue site before the lecture, always at least the day before. However, the slides are not complete. Slides are set up, so you may print a copy of the slides and write on them during the class.

Course Website

Avenue to Learn (avenue.mcmaster.ca) is McMaster's learning management system and is where all the course material will be posted. Course material is posted under the 'Content Tab' on Avenue and includes:

- Course Outline
- PowerPoint Notes

- Selected textbook questions and answers
- Office hours of the instructor and teaching assistant
- Grades
- Announcements

EVALUATION

Component	Weight	Due Date	Location
1. Quizzes	8% (best 7)	Mondays, 11:30 P.M.	Avenue to Learn
2. iclickers (Optional)	7% (best 80%)	Every lecture (starting Sep. 9 th)	In lecture
3. Assignments (Optional)	5%	(starting Sep. 9 th)	Wiley-Plus
4a. Test #1	20%	Thursday, Oct. 10 th	To be announced
4b. Test #2	20%	Thursday, Nov. 14 th	To be announced
5. Final Exam	40% (with iclicker & Assignments) 52% (without iclicker & Assignments)	December 2019	To be announced

1. Quizzes

Quizzes will be administered through Avenue to Learn. Seven (7) best out of Eight (8) Quizzes will be counted. All Quizzes will consist of Multiple-Choice & True/False questions. See below the detail information on the coverage, availability and due dates.

2. iClickers

Starting September 9th, we will make use of iclickers (or “clickers”) – an electronic response system that allows you to register an answer to questions asked in class. Your best 80% clicker sessions will count for 7% of the course grade. Each clicker session is graded out of 5 points. Two of the five are awarded for answering at least 75% of the questions posed in class, even if all of these are answered incorrectly. This is the “participation” portion of the clicker grade. One mark is awarded for each question answered correctly, to a maximum of three. This is the

“performance” portion of the clicker grade. **Students with a higher grade on the final exam will have the grade weight from the iclickers shifted to the final exam.**

iclickers may be purchased through the campus store. Each student is responsible for buying a clicker, registering it (see below), bringing it to class, and ensuring that the batteries are in working order. Any of i>clicker2 (with screen), i>clicker+ (no screen) or the original i>clicker can be used.

According to McMaster University **Academic Integrity Policy**

(<http://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicIntegrity.pdf>)

It shall be an offence knowingly to:

q) impersonate another student either in person or electronically for the purpose of academic assessment.

Clicker Registration

Students must register their i>clickers each academic term. If you have successfully registered an i>clicker in the past, you **must** register it for the current term. Registrations do not carry over from one term to another.

Do NOT enter your student ID number when registering!

Instead enter your Mac ID which is the name before @ in your McMaster e-mail address.

See step 5 below.

To complete the student registration form, students must:

1. Go to <https://www.iclicker.com/register-a-remote>
2. Which software will your instructor use in class?

Select: iClicker Classic (formerly iClicker 7)

3. Which Learning Management System does your institution use?

Select: Brightspace/D2L

Then choose “register directly on our website”

4. Enter your first name and last name in the appropriate fields.

5. **Enter your Mac ID - which is the name before the @ symbol in your McMaster e-mail address - as student ID.**

6. Enter your i>clicker remote ID. The remote ID is the 8-character alphanumeric code printed below the barcode on the back of your remote.

7. Enter the letters or numbers in the security image on the screen. This verification image is a slightly distorted series of characters used to prevent spam bots from submitting the form. Students can request another image if they find the first hard to see, or play an audio reading of it instead.

8. Click the Enter button. An on-screen message confirms that registration was successful.

For general iclicker inquiries, visit <https://campusstore.mcmaster.ca/information/faq/iclicker-faq.html>.

3. Assignments

These online WileyPlus Assignments will be administered through Avenue to Learn. Eight (8) best out of Nine (9) assignments will be counted. See below the detail information on the coverage, availability and due dates. **Students with a higher grade on the final exam will have the grade weight from the Assignments shifted to the final exam.**

4. a & b Test #1 & Test #2

Both tests, 60 minutes long, will consist of 40 multiple choice questions. The material for each test is outlined below.

5. Final Exam

The final exam will be 2 hours in length and will be written during the final exam period. The exam will consist of 70 multiple choice questions.

MISSING QUIZZES AND/OR TESTS

- There will be no makeup quizzes or makeup tests
- If you miss a test you will get a grade of zero unless you complete and submit a McMaster Student Absence Form (MSAF) which can be found at <https://www.mcmaster.ca/msaf/>
- With approved MASF, weight of the missed test will be shifted towards final exam.

NOTE: MSAF is not accepted for online quizzes and class participation through iclickers

PHOTO ID

You will be required to show your university photo ID at all tests and the exam.

SCAN SHEETS

For all tests and the final examination **multiple choice questions** to be answered on scan sheets.

You must use an HB pencil to fill in these sheets and you are responsible for providing your own.

IMPORTANT DATES

- Test # 1 Thursday, October 10th
- Test # 2 Thursday, November 14th

Note: Both term tests will be held during the class time

- Final Exam: According to Registrar office
- Course Withdrawal Friday November 8th

UNIVERSITY POLICIES

Academic Integrity Statement

You are expected to exhibit honesty and use ethical behavior in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity.

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behavior can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the [Academic Integrity Policy](#).

The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g. the submission of work that is not one's own or for which credit has been obtained.
2. Improper collaboration in group work.
3. Copying or using unauthorized aids in tests and examinations.

Academic Accommodation of Students with Disabilities

Students who require academic accommodation must contact Student Accessibility Services (SAS) to make arrangements. Academic accommodations must be arranged before classes or academic work begins, and for each term of study. Student Accessibility Services can be contacted by phone 905-525-9140 ext. 28652 or e-mail sas@mcmaster.ca. For further information, consult McMaster University's Policy for [Academic Accommodation of Students with Disabilities](#).

Academic Accommodation for Religious, Indigenous and Spiritual Observances

Students who require academic accommodation due to an Observance must submit a RISO form to their Faculty office, electronically or in person, normally within ten working days from the beginning of each term in which they are anticipating a need for Accommodation. For further information, consult McMaster University's [Policy on Academic Accommodation for Religious, Indigenous and Spiritual Observances](#).

Faculty of Social Sciences E-mail Communication Policy

Effective September 1, 2010, it is the policy of the Faculty of Social Sciences that all e-mail communication sent from students to instructors (including TAs), and from students to staff, must originate from the student's own McMaster University e-mail account. This policy protects confidentiality and confirms the identity of the student. It is the student's responsibility to ensure that communication is sent to the university from a McMaster account. If an instructor becomes aware that a communication has come from an alternate address, the instructor may not reply at his or her discretion.

***Requests for Relief For Missed Academic Term Work
McMaster Student Absence Form (MSAF)***

In the event of an absence for medical or other reasons, students should review and follow the Academic Regulation in the Undergraduate Calendar “Requests for Relief for Missed Academic Term Work”.

Extreme Circumstances

The University reserves the right to change the dates and deadlines for any or all courses in extreme circumstances (e.g., severe weather, labour disruptions, etc.). Changes will be communicated through regular McMaster communication channels, such as McMaster Daily News, A2L and/or McMaster email.

Course Modification

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check his/her McMaster email and course websites weekly during the term and to note any changes.

DETAILED COURSE SCHEDULE

Week	Dates	Topics/Readings	Assignments	Quizzes on Avenue
1	Sep. 3 rd to 6 th	Introduction Chapter 1		
2	Sep. 9 th to 13 th	Organizing and Graphing Data Chapter 2	Asgn#1 (Covers chapters 1) Open Sep. 3 rd 8:00 am Closes Sep.9 th 11:00 pm	
3	Sep. 16 th to 20 th	Numerical Descriptive Measures Chapter 3	Asgn#2 (Covers chapters 2) Open Sep. 9 th 8:00 am Closes Sep. 16 th 11:00 pm	Quiz #1 (Covers chapters 1& 2) Open Sep. 20 th 8:00 am Closes Sep. 23 rd 11:00 pm
4	Sep. 23 rd to 27 th	Probability Chapter 4	Asgn#3 (Covers chapters 3) Open Sep. 16 th 8:00 am Closes Sep. 23 rd 11:00 pm	Quiz #2 (Covers chapter 3) Open Sep. 27 th 8:00 am Closes Sep. 30 th 11:00 pm
5	Sep. 30 th to Oct. 4 th	Discrete Random Variables and Their Probability Distributions Chapter 5	Asgn#4 (Covers chapters 4) Open Sep. 23 rd 8:00 am Closes Sep. 30 th 11:00 pm	Quiz #3 (Covers chapter 4) Open Oct. 4 th 8:00 am Closes Oct. 7 th 11:00 :pm
6	Oct. 7 th to 11 th	Test # 1 (Covers chapters 1,2,3&4)		

7	Oct. 14 th to 18 th	<i>No Classes --- Reading Break</i>		
8	Oct. 21 st to 25 th	Continuous Random Variables and The Normal Distribution Chapter 6	Asgn#5 (Covers chapters 5) Open Sep. 30 th 8:00 am Closes Oct. 21 st 11:00 pm	Quiz #4 (Covers chapter 5) Open Oct. 25 th 8:00 am Closes Oct. 28 th 11:00 pm
9	Oct. 28 th to Nov. 1 st	Sampling Distributions Chapter 7	Asgn#6 (Covers chapters 6) Open Oct. 21 st 8:00 am Closes Oct. 28 th 11:00 pm	Quiz #5 (Covers chapter 6) Open Nov. 1 st 8:00 am Closes Nov. 4 th 11:00 pm
10	Nov. 4 th to 8 th	Estimation of the Mean and Proportion Chapter 8	Asgn#7 (Covers chapters 7) Open Oct. 28 th 8:00 am Closes Nov. 4 th 11:00 pm	Quiz #6 (Covers chapter 7) Open Nov. 8 th 8:00 am Closes Nov. 11 th 11:00 pm
11	Nov. 11 th to 15 th	Test # 2 (Covers chapters 5,6, & 7)	Asgn#8 (Covers chapters 8) Open Nov 4 th 8:00 am Closes Nov. 18 th 11:00 pm	
12	Nov. 18 th to 22 nd	Hypothesis Tests About the Mean and Proportion Chapter 9	Asgn#9 (Covers chapters 9) Open Nov 18 th 8:00 am Closes Nov. 22 nd 11:00 pm	Quiz #7 (Covers chapter 8) Open Nov. 15 th 8:00 am Closes Nov 18 th 11:00 pm
13	Nov. 25 th to 29 th	Estimation and Hypothesis Testing: Two Populations Chapter 10	Asgn#10 (Covers chapters 10) Open Nov 22 nd 8:00 am Closes Nov. 25 th 11:00 pm	Quiz #8 (Covers chapter 9) Open Nov. 22 nd 8:00 am Closes Nov. 25 th 11:00 pm
14	Dec. 2 nd to 4 th	Review		