INTE 296
Discover Statistics
Section EC
Winter 2023

This syllabus is subject to change and any changes will be posted in the Announcements section of your eConcordia portal.

Disclaimer: In the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change.

About the Course

The Instructional Team:

Instructor: Yogendra P. Chaubey

Instructor Contact Information: inte296@econcordia.com

Please allow for two business days for a response to e-mail inquiries. You may also post your question on the class discussion board, which serves as the main medium for communication for course-related issues.

Course Description

No doubt that the field of statistics has become increasingly prevalent in modern society. As consumers, it is not simply a matter of deciphering what is presented to us, but it is also important to be conscious about what has not been divulged. The goal of this introductory-level course is to give you the tools to conduct research, analyse and interpret data, and most importantly, to make informed decisions.

This course develops the basic understanding of Statistics, which is a scientific discipline to interpret data and make inferences about populations from smaller subsets. The tools for the understanding of data evolve from the area of probability, the foundations of which are explored in the course.

The mathematical background necessary for the course is simply basic arithmetic and algebra and may be suited to students in social sciences and humanities. The student going through this

course is expected to learn techniques useful for research methods in quantitative sciences. This introductory-level course is designed for students with basic mathematical skills (high school mathematics is all that is needed).

This course consists of 11 lessons; after a detailed introduction to the understanding of various types of data of interest through numerical summaries and visualization through lessons 1-3, lesson 4 deals with understanding relationship between two variables. The next two chapters introduce the concept of probability and probability distributions that help in understanding the methods of inference.

This is approximately half of the course. The rest of the course (Lessons 7-11) is devoted to an understanding of statistical principles and methods for making decisions about populations, including proportions, means and relationships between variables. Using multiple procedures (z-score, t-test, etc.), the student will be able to use sample data to make inferences about a given population under investigation.

Course Material

The material for this course consists of a required textbook and the INTE 296 course website which includes video lectures, assignments and other course material.

Required Textbook

Textbook Title: Introductory Statistics – Exploring The World Through Data
Author: Robert Gould, Colleen Ryan, Jim Stallard and Michelle Boué
ISBN10: 978-0321-82365-6
Publisher: Pearson, Toronto, Canada
Edition: Canadian Edition.

This textbook is only available online as an e-book through the course website. Once you purchase your account to access the online course, register your Texidium account first.

- The electronic textbook materials can be downloaded from Texidium Windows or Mac mobile apps.
- The electronic textbook materials can be printed in the Texidium desktop apps for Windows and Mac or the online version.
- Purchase of the e-book also allows access to online resources for the student. An important online resource is the web-based statistics software known as *StatCrunch* that will be explained and used through out the course.

Calculators

Only calculators approved by the Department (with a sticker attached as a proof of approval), such as **Sharp EL 531** or the **Casio FX 300MS**, available at the Concordia Bookstore, are

permitted for the class test and final examination. See http://www.concordia.ca/artsci/math-stats/services.html #calculators for details.

Course Website

The course website can be accessed at www.econcordia.com.

Your eConcordia account will be valid until the end of the term for which you are registered.

Your account will allow you to access the online course material, which includes videos, notes, discussion boards, all graded course components, useful links, readings and many more resources from the course website for the duration of the term.

Assessments

Graded Assessments:

Assignment 1 – Lessons 1, 2 and 3	5%
Quiz 1 (online) – Lessons 1 and 2	7.5%
Assignment 2 – Lessons 4, 5 and 6	5%
Quiz 2 (online) – Lessons 3, 4 and 5	7.5%
Assignment 3 – Lessons 7 and 8	5%
Quiz 3 (online) – Lessons 6 and 7	7.5%
Assignment 4 – Lessons 9 and 10	5%
Quiz 4 (online) – Lessons 8 and 9	7.5%
Quiz 5 (online) – Lessons 10 and 11	7.5%
Quizzes (Best 4 of 5)	30%
Final Exam (In Person; will cover Lessons 1-11)	50%

Description of Graded Assessments

Assignments:

The assignments are based on the material learned through the examples, and practice questions. The students will have approximately 2 weeks to complete an assignment. The students must respect the due dates, as no extension to the deadline will normally be provided. The students may discuss the assignments amongst themselves, as this may provide a better understanding of the material provided, however, each student must submit their own assignment.

Quizzes:

Each quiz will comprise of a series of multiple-choice, true-false, and/or short-answer questions. Questions will be randomized and automatically generated from a pool of possible questions so that each student will have a "unique" assessment. The quiz opens at 12:01am on the scheduled day and closes at 11:59pm. Quiz 1 will cover the content from Lessons 1 and 2, Quiz 2 will be based on content from Lessons 3, 4 and 5, Quiz 3 will cover Lessons 6 and 7, Quiz 4 will cover Lessons 8 and 9, and Quiz 5 will cover Lessons 10 and 11.

You will NOT be able to redo a quiz if you encounter a computer or connection problem. There will be five (5) online quizzes. The best 4 of the 5 quiz results will be counted and there is no replacement quiz for missing (or not able to complete) a quiz, whatever the reasons are.

Final Exam:

The final exam will be a 3-hour in-person exam scheduled and managed by the Concordia Examination office covering material from Lessons 1-11.

Grades

In order to view your grades throughout the semester, click on the My Grades link in your eConcordia portal.

It is your responsibility to ensure your work has been received (to be verified as outlined in your assignment instructions) and to contact your TA via e-mail for clarification if you have any questions concerning your grades.

Your final letter grade for the course will be posted in your myConcordia Portal at the end of the term.

Grading Distribution

Letter Grade	% Grade		Letter Grade	% Grade	
A+	89 to	100	C	64 to	67.99
A	85 to	88.99	C-	60 to	63.99
A-	82 to	84.99	D+	57 to	59.99
B+	78 to	81.99	D	53 to	56.99
B	74 to	77.99	D-	50 to	52.99
B-	71 to	73.99	F	0 to	49.99
C+	68 to	70.99			

Policies:

Late Submissions and Extensions

- It is your responsibility to ensure that if you are unable to complete your work by the deadline or complete an assessment on the assigned date, you must request an extension beforehand from the instructor of the course.
- Extensions will be granted only to students who are able to provide a reasonable, verifiable, medical note before the deadline.
- In the case of emergencies, it is your responsibility to notify your instructor via e-mail or phone as soon as the issue arises in order to determine the course of action required for the matter at hand.

- If the assignment is incomplete (i.e., you omit answering questions, you do not provide any evidence of having worked out the problem), you will not be permitted to resubmit it with corrections.
- Vacations and travel plans (work-related or otherwise) are not considered valid reasons for late submissions of or an inability to complete assignments, quizzes and exams.
- Please note that you are responsible for the version of the work you upload to the website. If you upload the incorrect version of your work to the website, you can resubmit the correct version prior to the deadline. If you fail to meet the deadline, the version of your work located on the website is the one that will be graded.

Important Information

Topic	Link
Academic Integrity	[Academic Integrity](#)
Educational Technology Guidelines	[Concordia Educational Technology Guidelines for Faculty and Students (the "Guidelines")](#)
Access Centre for Students with Disabilities	[ACSD](#)
Concordia Library Citation & Style Guides	[How to cite...](#)
Course Communication Tools	[Communication](#)
eConcordia Policies	[Policies](#)
Final Exams Information	[Final Exams](#)
Helpdesk/Support	[FAQ](#)
Refunds	[Refunds](#)
Technical Requirements	[Technical Requirements](#)
Tips for Studying Online	[Studying Tips](#)
Tips on how to reach online learning goals (learning modules)	[How to Succeed @ eConcordia](#)

Third Party Software/Website

Here is an excerpt on **Concordia's policy on Educational software or services developed and owned by third parties**, including those linked to textbooks, in-class surveys, lecture capture, virtual classrooms, course assignments and quizzes. They can be invaluable tools for the development and teaching of courses.

Third-Party software/websites that require personal information (name, email, student number, etc.):

Students are advised that external software and/or websites will be used in the course and students may be asked to submit or consent to the submission of personal information (for example, name and email) to register for an online service. Students are responsible for reading and deciding whether or not to agree to any applicable terms of use. Use of this software and service is voluntary. Students who do not consent to the use the software or service should identify themselves to the course instructor as soon as possible, and in all cases before the DNE deadline, to discuss alternate modes of participation.

Third-party software/websites for work submission:

Students are advised that external software and/or websites will be used in the course and students may be asked to submit or consent to the submission of their work to an online service. Students are responsible for reading and deciding whether or not to agree to any applicable terms of use. Use of this software and service is voluntary. Students who do not consent to the use the software or service should identify themselves to the course instructor as soon as possible to discuss alternate modes of participation that do not require them to give copyright or the right to use their work to a third party.

By using the external software or websites, students agree to provide and share their work and certain personal information (where applicable) with the website/software provider. Students are advised that the University cannot guarantee the protection of intellectual property rights or personal information provided to any website or software company. Intellectual property and personal information held in foreign jurisdictions are subject to the laws of such jurisdictions.

Third-party technology to record a course:

Note that, as a part of this course, some or all of the lectures and/or other activities in this course may be recorded. Recordings will be focused on the instructor and will normally exclude students. It is possible, however, that your participation may be recorded. If you wish to ensure that your image is not recorded, speak to your instructor as soon as possible.

Also, please note that you may not share recordings of your classes and that the instructor will only share class recordings for the purpose of course delivery and development. Any other sharing may be in violation of the law and applicable University policies, and may be subject to penalties.

Texidium

Texidium is an eReader platform that puts your eTexts at your fingertips on any device, anywhere, and at any time.

Available online and for all popular platforms (iOS, Android, Windows, and Mac OS), Texidium is designed with the student learning experience in mind and sets a new standard for accessibility and convenience.

Texidium Support Hours:

- Monday to Friday, 6:00 am to 6:00 pm EST. This includes email, phone or chat support.
- Evening and night support is available via email only, from 6:00 pm to midnight.
- The communication channels for End-Users is available at https://texidium.com/contact/.
- Over the weekend, email support is from 8:00 am to midnight; however, it is a reduced team so response times may be a bit slower and prioritized by level of urgency.

INTE 296 - Discover Statistics
Agenda
Winter 2023

All deadlines indicated are on the due date listed by 11:59 p.m. unless otherwise indicated.

Week 1: January 9 - January 15	
	Review the Course Outline and Agenda
	Navigate the Course Website
	Lesson 1: Introduction to Data
January 09	**Orientation Test available**
January 09	Basic Math Review
January 09	**Classes begin, winter term**
January 09	**Discussion Board opens at 2 PM.**
Week 2: January 16 - January 22	
	Lesson 2: Visualizing Data
January 19	**Attend the Virtual Orientation Session @ 2:30 PM** Zoom link: https://concordia-ca.zoom.us/j/8263118767?pwd=K0FkWm5STWRoeGswRnNnVTVXcUVBQT09 **Meeting ID: 826 311 8767** **Passcode**: INTE296
January 20	**Orientation Test due**
Week 3: January 23 - January 29	
	Lesson 3: Numerical Summaries of Centre and Variation
	Orientation to StatCrunch https://www.youtube.com/watch?v=f-hMxX3FbiI&list=PLBE055F65E43B4973&index=2&t=0s
January 23	**Deadline to add winter-term courses**

January 23	**Deadline for withdrawal with tuition refund (DNE) from winter-term courses**
January 25	**Assignment 1 (Lessons 1, 2 and 3) opens**
Week 4: January 30 - February 5	
	Lesson 4: Exploring Relationships Between Variables
February 02	**Attend the Q & A Session @ 2:30 PM** Zoom link: https://concordia-ca.zoom.us/j/8263118767?pwd=K0FkWm5STWRoeGswRnNnVTVXcUVBQT09 **Meeting ID: 826 311 8767** **Passcode**: INTE296
February 03	**Quiz 1 (Lessons 1 and 2)**
Week 5: February 6 - February 12	
	Lesson 5: Probability: The Tool for Describing Variation
Week 6: February 13 - February 19	
	Lesson 6: Modelling Random Events: The Normal and Binomial Models
February 15	**Assignment 1 due**
February 15	**Assignment 2 (Lessons 4, 5 and 6) opens**
February 16	**Attend the Q & A Session @ 2:30 PM** Zoom link: https://concordia-ca.zoom.us/j/8263118767?pwd=K0FkWm5STWRoeGswRnNnVTVXcUVBQT09 **Meeting ID: 826 311 8767** **Passcode**: INTE296
February 17	**Quiz 2 (Lessons 3, 4 and 5)**
Week 7: February 20 - February 26	
	Lesson 7: Survey Sampling and Statistical Inference
Mid-Term Break: February 27 - March 5	
February 27	**Start of mid-term break**
March 03	**President's Holiday - University closed**
March 05	**End of mid-term break**
Week 8: March 6 - March 12	
	Lesson 8: Hypothesis Testing for Population Proportions

March 09	**Attend the Q & A Session @ 2:30 PM** Zoom link: https://concordia-ca.zoom.us/j/8263118767?pwd=K0FkWm5STWRoeGswRnNnVTVXcUVBQT09 **Meeting ID: 826 311 8767** **Passcode**: INTE296
March 10	**Quiz 3 (Lessons 6 and 7)**
Week 9: March 13 - March 19
	Lesson 9: Hypothesis Testing for Means
March 15	**Assignment 2 due**
March 15	**Assignment 3 (Lessons 7 and 8) opens**
March 17	**Last day to register with the Access Centre for Students with Disabilities and receive exam accommodations for the final examination period.**
Week 10: March 20 - March 26
	Lesson 10: Relationships Between Categorical Variables
March 23	**Attend the Q & A Session @ 2:30 PM** Zoom link: https://concordia-ca.zoom.us/j/8263118767?pwd=K0FkWm5STWRoeGswRnNnVTVXcUVBQT09 **Meeting ID: 826 311 8767** **Passcode**: INTE296
March 24	**Quiz 4 (Lessons 8 and 9)**
Week 11: March 27 - April 2
	Lesson 11: Comparing Several Means: One-Way Analysis of Variance
March 29	**Assignment 3 due**
March 29	**Assignment 4 (Lessons 9 and 10) opens**
Week 12: April 3 - April 9
April 06	**Quiz 5 (Lessons 10 and 11)**
April 06	**Last day for instructor-scheduled tests or examinations**
April 07	**University closed**
April 08	**University closed**
April 09	**University closed**
Week 13: April 10 - April 16
April 10	**University closed**

April 12	**Assignment 4 due**
April 13	**Attend the Final Exam Review Session @ 2:30 PM** Zoom link: https://concordia-ca.zoom.us/j/8263118767?pwd=K0FkWm5STWRoeGswRnNnVTVXcUVBQT09 **Meeting ID: 826 311 8767** **Passcode**: INTE296
Week 14: April 17 - April 19	
April 17	**Last day of classes**
April 18	**Deadline for academic withdrawal (DISC) from winter-term courses**
Examinations Period: April 20 - May 2	
	Final Exam date and time is posted on your Student Hub