

STAT 201 Elementary Statistics Fall 2015

Sections	Professors	Contact	Office Hours
STAT201:11 STAT201:14	Derrick Lee dlee at stfx dot ca	Annex 9A 867-5746	Monday: 13:00 – 15:00 Tuesday: 14:30 – 15:30 Wednesday: 9:30 – 10:30 Thursday: 13:30 – 15:30 or by appointment
STAT201:13	Dr. Shannon Ezzat sezzat at stfx dot ca	Annex 22C 867-3971	Monday: 9:30 – 11:00 Tuesday: 9:30 – 12:00 Thursday: 14:00 – 16:00 or by appointment.

**** Note: Please email instructors with the subject: STAT201 ****

Class Times: Stat 201:11: B1 (M/9:15), B2 (W/8:15), B3 (R/10:15) at NH 348
 Stat 201:13: KL (T/8:15), LK (F/9:30) at NH 252
 Stat 201:14: T1 (T/3:45), T2 (R/3:45) at NH 248

Course Goals:

This is an introductory course in statistics and it will cover the basic principles of data collection, description, and analysis. It will provide you with comprehensive knowledge of topics including, descriptive statistics, graphical display of data, random variables and probability distributions, parameter estimation, hypothesis testing, and simple regression. Furthermore this course will:

- Prepare you to be proficient in the practice of statistics.
- Teach you how to identify bias in data collection.
- Teach you how to organize and summarize data.
- Teach you to make inferences from data and to be able to test the significance of your results.
- Develop problem solving and critical thinking skills.

The main goal is to understand the main concepts, not to memorize formulae.

Prerequisites: None

Website: <https://moodle.stfx.ca>

Textbook:

Statistics for Business and Economics (12th Edition) by McClave, Benson, and Sincich (required-ish).

Note: There is a loose-leaf version of the textbook (Not eligible for the StFX Buy-Back program), please ask the campus bookstore for more information, and there is a solution manual that is available, entitled *Students Solutions Manual for Statistics for Business and Economics (12th Edition)*.

Grading Scheme: Your final grade will be the **BEST** of the following two grading schemes:

SCHEME 1	SCHEME 2
<ul style="list-style-type: none">• 30% Labs, quizzes, and assignments• 25% Midterm• 45% Exam	<ul style="list-style-type: none">• 30% Labs, quizzes, and assignments• 15% Midterm• 55% Exam

Course Software:

SPSS will be used as a statistical analysis tool. Students will be expected to become familiar with the available statistical analysis functionality of SPSS. There is an open-source version of SPSS called PSPP that works similar to SPSS and is free to download at: <http://www.gnu.org/software/pspp/>.

The software offered *will not be required* for the assignments, nor will anything related to SPSS be tested on the quizzes, midterms, or finals; students are free to use whatever software they choose. However, support will be given during the lab period and marks associated with the labs will be based on SPSS, therefore it is strongly recommended that you become familiar with SPSS/PSPP.

Important Notes:

- There are **5 assignments in total**. Assignments are common with the other sections and are due at 5pm on every other Thursdays. If you miss this deadline, you may turn in your assignment anytime before the solutions are posted (5pm on next Monday), but with a 10% deduction from the grade/day. **No assignments will be accepted once the solutions are posted.**
- Collaboration on assignments is acceptable but **all work presented must be original**; please be conscious of the ramifications of plagiarism (see section 3.8 of the Academic Calendar).
- Requests for re-grading should be done within one week of the work being handed back.
- There are **5 quizzes in total** (10 minutes; one page).
- Formula sheets and tables will be provided for all exams and quizzes.
- There will be no makeups of midterm exam and quizzes except in the case where a valid documented excuse is provided before or within one week of assessment date (see Section 3.9 of the Academic Calendar). Missed midterm exam or quizzes for those students who have legitimate excuses will be shifted to the weight for the final exam and/or other marked material.
- **For all examinations, graphing calculators will not be permitted.**

More Help Tips:

- The Mathematics and Statistics Learning Centre: http://sites.stfx.ca/mscs/learning_center
- Tutor list: http://sites.stfx.ca/mscs/mscs_tutors
- Meeting regularly with fellow students
- Meeting with your instructor

Classroom Environment Policy:

All students and course professor have the right to classroom environment that is conducive to learning and teaching. Disruption of classes in any form that degrades the learning experience or teaching will not be tolerated. Disruptive students may be asked to leave the class. Your course professor will further address this matter at the start of the semester.

Statement on Equitable Learning Environment:

Everyone learns more effectively in a respectful, safe and equitable learning environment, free from discrimination and harassment. I invite you to work with me to create a classroom space – both real and virtual – that will foster and promote the values of human dignity, equity, non-discrimination and respect for diversity.

Please feel free to talk to me about your questions or concerns about equity in our classroom or in the StFX community in general. If I cannot answer your questions or help you address your concerns, I encourage you to talk to the Chair/Coordinator of the Department/Program or the Human Rights and Equity Advisor, Marie Brunelle at mbrunell@stfx.ca.

Syllabus for STAT 201:11 and STAT 201:14 and Tentative Schedule

Week	Period	Sections	Topics
1	Sept. 8	Classes begin	
	Sept. 8 – 11	1.1 to 1.7	Introduction to Statistics and Data, Critical Thinking of Statistics, Terms used in Statistics
2	Sept. 14 – 18	2.1 to 2.5	Describing Data, Summarizing Data, Graphical Representation of Data, Measures of Central Tendency and Variability
	Sept. 17	Quiz 1	
3	Sept. 21 – 25	2.6, 2.7, 2.10, 3.1 to 3.2	Measures of Position, Outliers, Distorting the Truth, Identifying Bias, Fundamentals of Probability
	Sept. 24	Lab 1: Introduction to SPSS	
4	Sept. 28 – Oct. 2	3.3 to 3.7	Additive Rule, Multiplicative Rule, Rule of Complement, Conditional Probability, Random Sampling
	Oct. 1	Quiz 2	
5	Oct. 5 – 9	4.1 to 4.3	Discrete Random Variables, Discrete Probability Distributions, Binomial Distribution
6	Oct. 12	Thanksgiving Holiday	
	Oct. 12 – 16	4.5 to 4.7	Continuous Random Variables, Continuous Probability Distributions, Normal Distribution
	Oct. 15	Quiz 3	
7	Oct. 19 – 23	5.1 to 5.4	Sampling Distributions (Mean and Proportions), Central Limit Theorem
	Oct. 22	Midterm	
8	Oct. 26 – 30	6.1 to 6.3	Confidence Interval Estimates for the Mean
	Oct. 29	Lab 2: Data Management	

9	Nov. 2 – 6	6.4 to 6.5	Confidence Interval Estimates for the Proportion, Samples Sizes
	Nov. 5	Quiz 4	
10	Nov. 9 – 13	7.1 to 7.2	Intro to Hypothesis Testing
	Nov. 11	Remembrance Day	
	Nov. 12 – 13	Fall Study Days	
11	Nov. 16 – 20	7.3 to 7.5, 7.8	Hypothesis Testing, P-Values, Error Analysis
	Nov. 19	Lab 3: Statistical Inference and Interpretation	
12	Nov. 23 – 27	8.1 to 8.4, 9.2*, 10.3*	Inferences from Two Samples: Means and Proportions, Analysis of Variance*, Contingency Tables* (* Introductory/Overview of topics)
	Nov. 26	Quiz 5	
13	Nov. 30 – Dec. 4	11.1 to 11.4, 11.6, 2.8	Correlation, Simple Linear Regression, Estimation and Prediction
	Dec. 3	Lab 4: Regression Analysis	