

**BUS 111A, Statistics I**

*3 Credits, 16 weeks, 3 hours*

Students are introduced to basic statistical concepts and procedures used to solve business problems. Topics covered include: data graphics and charts; measures of central tendency and dispersion; elementary probability; probability and sampling distributions; interval estimation; hypothesis-testing; and regression & correlation. Students will also develop competence in the use of data analysis software.

*Prerequisites and/or co-requisites: BUS 103*

**Instructor**

Jason Schulz  
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**Office Hours**

Monday, 8:00 - 8:50 AM  
Wednesday, 11:00 - 11:50 AM, 2:00 - 2:50 PM  
Thursday, 2:00 - 2:50 PM  
Friday, 12:00 - 12:50 PM

**Hours of Instruction**

*Monday, 9:00 – 11:50 AM, Clearwater Building, Room 273*  
*Labs: 111X, Wednesday, 12:00 – 1:50 PM, Clearwater Building, Room 267*  
*111Z, Thursday, 12:00 – 1:50 PM, Clearwater Building, Room 267*  
*111Y, Friday, 1:00 – 2:50 PM, Syncrude Centre, Room S107*

**Required Resources**

**Basic Statistics for Business & Economics**, Lind et al., Fourth Canadian Edition, ISBN 978-0-07-132051-1

Texas Instruments BA II Plus or Texas Instruments BA II Plus Professional Calculator and Internet Access (for Lyryx Labs)

**Course Outcomes**

Upon completion of the course the student should be able to:

1. Arrange data sets and represent them using a number of organizational methods
2. Calculate the mean, median, mode, variance and standard deviation of a data set.
3. Calculate the probability that any given event may occur.
4. Calculate z-values in Normal Probability Distributions.
5. Differentiate between z- and t-values.
6. Conduct Hypothesis testing, using the five-step method, for single and two sample tests.
7. Describe some of the common errors that occur in samples.
8. Perform ANOVA calculations and generate the corresponding table.

**Evaluation**

Lyryx Online Labs: 15%

Midterm Exam: 40%

Final Exam: 45%

Total: 100%

*The minimum progression grade for this course is 60%. The minimum standard for passing this course is a grade of 50%.*

**Grading System**

Descriptor	Alpha Grade	4.0 Scale	Percent
Excellent	A+	4.0	> 93.9
	A	4.0	87 – 93.9
	A-	3.7	80 – 86.9
Good	B+	3.3	77 – 79.9
	B	3.0	74 – 76.9
	B-	2.7	70 – 73.9
Satisfactory	C+	2.3	67 – 69.9
	C	2.0	64 – 66.9
<b>Progression</b>	C-	1.7	60 – 63.9
Poor	D+	1.3	57 – 59.9
<b>Minimum Pass</b>	D	1.0	50 – 56.9
Failure	F	0.0	< 50

**Proposed Schedule of Topics**

WEEK	WEEK OF	TOPIC	CHAPTERS / SECTIONS
1	Jan. 5	Introduction to Statistics	1
2	Jan. 12	Describing Data: Frequency Distributions and Graphic Presentation	2
3	Jan. 19	Describing Data: Numerical Measures Lyryx #1 Deadline	3
4	Jan. 26	A Survey of Probability Concepts	4
5	Feb. 2	Discrete Probability Distributions The Normal Probability Distribution Lyryx #2 Deadline	5 & 6
6	Feb. 9	<b>Midterm Exam (40%)</b> Lyryx #3 Deadline	
7	Feb. 16	<b>Family Day, Monday, February 16, 2015</b> Lyryx #4 Deadline	
8	Feb. 23	<b>Reading Week – No Classes</b>	
9	March 2	Sampling Methods and Central Limit Theorem Lyryx #5 Deadline	7
10	March 9	Estimation and Confidence Intervals Lyryx #6 Deadline	8
11	March 16	One-Sample Tests of a Hypothesis	9
12	March 23	Two-Sample Tests of a Hypothesis Lyryx #7 Deadline	10
13	March 30	Analysis of Variance Lyryx #8 Deadline <b>Good Friday, April 3, 2015</b>	11
14	April 6	<b>Easter Monday, April 6, 2015</b> Lyryx #9 Deadline	
15	April 13	Final Exam Review Lyryx #10 Deadline	
16	April 20	<b>FINAL EXAM (45%) - TBA</b>	

**Please Note:**

Date and time allotted to each topic is subject to change. It is your responsibility as a student to contact the Office of the Registrar to complete the forms for Withdrawal or Change of Registration, and any other forms. Please refer to the list of important dates as noted in the Academic Schedule in the Keyano College Credit Calendar.

## Performance Requirements

### Student Attendance

Class attendance is useful for two reasons. First, class attendance maximizes a student's learning experience. Second, attending class is a good way to keep informed of matters relating to the administration of the course (e.g., the timing of assignments and exams). Ultimately, you are responsible for your own learning and performance in this course.

It is the responsibility of each student to be prepared for all classes. Students who miss classes are responsible for the material covered in those classes and for ensuring that they are prepared for the next class, including the completion of any assignments and / or notes that may be due.

### Academic Misconduct

Students are considered to be responsible adults and should adhere to principles of intellectual integrity. Intellectual dishonesty may take many forms, such as:

- Plagiarism or the submission of another person's work as one's own
- The use of unauthorized aids in assignments or examinations (cheating)
- Collusion or the unauthorized collaboration with others in preparing work
- The deliberate misrepresentation of qualifications
- The willful distortion of results or data
- Substitution in an examination by another person
- Handing in the same unchanged work as submitted for another assignment

Penalties for academic offences range from a verbal reprimand to dismissal from the College, and in certain circumstances may involve legal action.

## Specialized Supports

### Counselling and Disability Services

Counselling Services provides a wide range of specialized counselling services to prospective and registered students, including personal, career and academic counselling.

### SKILL Centre

The SKILL Centre is a learning space in the Clearwater Campus at Keyano College where students can gather to share ideas, collaborate on projects and get new perspectives on learning from our tutorial staff.

The SKILL Centre, through a variety of delivery methods, provides assistance in skill development to Keyano students. Assistance is provided by instructors, staff and student tutors. Individuals wishing to improve their mathematics, writing, grammar, study, or other skills, can take advantage of this unique service.

**Authorization**

This course outline has been reviewed and approved by the Program Chair.

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Jason Schulz, Instructor

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Gina Langager, Chair

Date Authorized

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Guy Harmer, Dean

Date Authorized

**Signed copies to be delivered to:**

Instructor

Registrar's Office