

**STATISTICS FOR  
MANAGEMENT AND ORGANIZATIONAL STUDIES  
MOS 2242A 550**

**Fall 2017 Course Outline**

**Faculty of Arts and Social Science, Huron University College**

**1.0 BASIC COURSE INFORMATION**

MOS 2242A

Statistics for Management and Organizational Studies

Course Prerequisites:

1.0 course or equivalent from Calculus 1000A/B, Calculus 1100A/B, Calculus 1301A/B, Calculus 1501A/B; the former Linear Algebra 1600A/B; Mathematics 1225A/B, Mathematics 1228A/B, Mathematics 1229A/B, or the former Mathematics 030, Mathematics 031, and enrolment in a MOS Honors Specialization or Major module.

Antirequisites: All other University level statistics courses at the 2000 level or higher.

Instructor: Dr. Dylan Gault

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Scheduled class times: Friday, 8:30 AM to 11:30 AM

Office Hours: Wednesday 10:30 AM to 11:30 AM – HUC V214

**2.0 COURSE DESCRIPTION**

The purpose of this course is to introduce students to quantitative decision-making skills, with an emphasis on analysis techniques used in management. Topics include: descriptive statistics, probability, hypothesis testing, analysis of variance, correlation and regression, time series forecasting, and survey techniques.

**3.0 COURSE LEARNING OBJECTIVES**

Upon the completion of this course students should be able to:

1. Understand the concepts, techniques, usefulness, strengths and limitations of general statistical methods.
2. Recognize and formulate statistical problems for real life decision making.
3. Develop formal analytic skills for the collection, presentation, analysis, and interpretation of business data.

**4.0 DESCRIPTION OF CLASS METHODS**

Lecture; with professor/student and student/professor question/answer exchanges. Practice questions will be solved during lectures.

## 5.0 TEXTBOOKS AND OTHER REQUIRED RESOURCES

Bowerman, Aitken Schermer, Johnson, O'Connell (2014). *Business Statistics in Practice, 3<sup>rd</sup> Canadian Edition*. McGraw-Hill Ryerson.

## 6.0 METHOD OF EVALUATION/ASSESSMENT

This course will have weekly assignments, two mid-term exams and one final exam.

Weekly assignments will count towards part of the marks awarded for exams. Part of each exam mark will include 5% towards the final grade; these marks will be awarded based on how many assignments a student completes.

Each mid-term exam will be 25% of the final grade, with an additional 5% given for each exam based on the completion of weekly assignments.

The final exam will be worth 35% of the final grade, with an additional 5% based on the completion of weekly assignments.

| <b>Component</b>  | <b>Date</b>            | <b>Material Covered</b>                 | <b>Percentage of Final Grade</b> |
|-------------------|------------------------|-----------------------------------------|----------------------------------|
| Class Assignments | Wednesday before class | All                                     | 15%                              |
| Mid-term 1        | October 5th            | Content in chapters 1, 2, 3, 4, 5, 6, 7 | 25%                              |
| Mid-term 2        | November 9th           | Content in chapters 7, 8, 9, 10, 14     | 25%                              |
| Final Exam        | TBA                    | All course content                      | 35%                              |

7.0 TENTATIVE SCHEDULE OF CLASSES, INCLUDING REQUIRED READINGS, TOPICS

| <b>Date</b>   | <b>Topic</b>                                           | <b>Textbook Sections</b>                       |
|---------------|--------------------------------------------------------|------------------------------------------------|
| Sept. 7       | Introduction to business statistics                    | 1.1-1.6                                        |
| Sept. 14      | Descriptive statistics, probability                    | 2.1 – 2.5, 2.7, 2.8, 3.1, 3.2                  |
| Sept. 21      | Discrete random variables, continuous random variables | 4.1 – 4.3, 5.1 – 5.4                           |
| Sept. 28      | Sampling distributions, hypothesis testing             | 6.1, 7.1 – 7.6                                 |
| <b>Oct. 5</b> | <b>Mid-term exam</b>                                   | <b>Content in chapters 1, 2, 3, 4, 5, 6, 7</b> |
| Oct. 5        | More on hypothesis testing, effect sizes               | 8.1 – 8.4, 7.7, 8.1                            |
| Oct. 12       | Fall reading week                                      |                                                |
| Oct. 19       | Confidence intervals                                   | 9.1 – 9.6                                      |
| Oct. 26       | Chi-square tests                                       | 14.1, 14.2                                     |
| Nov. 2        | Experimental design, analysis of variance              | 10.1, 10.2, 10.4                               |
| <b>Nov. 9</b> | <b>Mid-term exam</b>                                   | <b>Content in chapters 7, 8, 9, 10, 14</b>     |
| Nov. 9        | Correlation, linear regression                         | 11.1 – 11.4                                    |
| Nov. 16       | Correlation, linear regression continued               | 11.5 – 11.11                                   |
| Nov. 23       | Multiple regression                                    | 12.1 – 12.8                                    |
| Nov. 30       | Time-series forecasting                                | 16.1, 16.2, 16.6, 16.7                         |
| <b>TBA</b>    | <b>Final Exam</b>                                      | <b>All course content</b>                      |



The Appendix to Course Outlines is posted on the OWL course site.