
MOS 2242B Section – 002 Business Statistics Winter 2021 Course Syllabus

1. Course Information:

1.1 Class Location and Time: Online

1.2 Contact Information:

Instructor: Professor Julie Aitken Schermer

Office: SSC 4429

Office *e-Hours*: Mondays and Tuesdays 9:30-11am **Note**: on-line office hours only through email or OWL forum.

Phone: 519-661-2111 x84699

Email: jharris@uwo.ca

DAN Department of Management & Organizational Studies strives at all times to provide accessibility to all faculty, staff, students and visitors in a way that respects the dignity and independence of people with disabilities. Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 519-661-2147 for any specific question regarding an accommodation.

More information about “Accessibility at Western” is available at: <http://accessibility.uwo.ca>

2. Calendar Description

2.1 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.

Antirequisite(s) at Main campus: [Biology 2244A/B](#), [Economics 2122A/B](#), [Economics 2222A/B](#), [Geography 2210A/B](#), [Health Sciences 3801A/B](#), [Psychology 2810](#), [Psychology 2820E](#), [Psychology 2830A/B](#), [Psychology 2850A/B](#), [Psychology 2851A/B](#), [Social Work 2207A/B](#), [Sociology 2205A/B](#), [Statistical Sciences 2035](#), [Statistical Sciences 2141A/B](#), [Statistical Sciences 2143A/B](#), [Statistical Sciences 2244A/B](#), [Statistical Sciences 2858A/B](#). **Antirequisite(s)** at Brescia, Huron, King's campus: [Biology 2244A/B](#), [Economics 2122A/B](#), [Economics 2222A/B](#), [Geography 2210A/B](#), [Health Sciences 3801A/B](#), [Psychology 2810](#), [Psychology 2820E](#), [Psychology 2830A/B](#), [Psychology 2850A/B](#), [Psychology 2851A/B](#), [Social Work 2207A/B](#), [Sociology 2205A/B](#), [Statistical Sciences 2035](#), [Statistical Sciences 2141A/B](#), [Statistical Sciences 2143A/B](#), [Statistical Sciences 2244A/B](#), [Statistical Sciences 2858A/B](#), [Statistical Sciences 2037A/B](#) if taken prior to Fall 2010, former Psychology 2885 (Brescia), former Statistical Sciences 2122A/B, former Social Work 2205.

Prerequisite(s): 1.0 course or equivalent from [Calculus 1000A/B](#), [Calculus 1301A/B](#), [Calculus 1501A/B](#), [Mathematics 1225A/B](#), [Mathematics 1228A/B](#), [Mathematics 1229A/B](#), [Mathematics 1600A/B](#), and enrolment in BMOS. Course Weight: 0.50 CATEGORY A

2.2 Senate Regulations

Senate Regulations state, “unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you will be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.”

This regulation is in regard to the COURSES required.

Students not in BMOS are permitted to enroll in up to 1.0 MOS courses, per the Academic Timetable.

3. Textbook

Black, K., Bayley, T., & Castillo, I. (2020). Business Statistics. Third Canadian Edition. Wiley Publishers. ISBN (e-PUB) 978-1-119-57758-4

Book can be purchased through the Western bookstore at:

<https://bookstore.uwo.ca/product/cebcodeid31952>

4. Course Objectives and Format

The DAN Department of Management and Organizational Studies as a whole draws upon an evidence-based management approach. Evidence-based management is the systematic process of gathering evidence from multiple sources, critically appraising the evidence, and using that evidence in making and evaluating management decisions to improve organizational performance.

4.1 Course objectives

To introduce students to statistical concepts, equations, and applications related to the business world.

4.2 Course format

On-line asynchronous lectures.

5. Learning Outcomes

See topic list (proficiency and understanding of each topic listed).

6. Evaluation

Grades will be based on 5, timed on-line quizzes, each worth 20% of the course grade. Each quiz will consist of 20-30 questions which will be a mix of multiple choice and true/false questions. Students will have been 20 and 40 minutes to complete each quiz (time allotted will be announced at the start of each quiz and varies depending on how many questions require a calculator). Multiple choice questions will be scored as either correct (1 grade) or incorrect (0 grade). True-false questions will be scored as either correct (1 grade) or incorrect (-.5 grade).

Bi-weekly quizzes start on Week 4, Mondays at 8am (8:00h Eastern Standard Time).

EACH QUIZ COVERS THE MATERIAL FROM THE WEEK BEFORE.

Note: Quizzes will take place on the course OWL site and not the e-book site.

Each quiz is **closed book**. **Dictionaries are NOT allowed. Non-programmable calculators are allowed. Electronic devices of any kind (including cell phones, smart watches and**

calculators) are NOT allowed. You may NOT copy (photograph, download, save, etc.) questions from the quizzes as these are copy written.

Students are responsible for the assigned material (see Section 7). Quizzes will not be returned to students but may be reviewed by contacting your Instructor.

Students are **REQUIRED TO COMPLETE ALL COMPONENTS** of this course. There are no exceptions to this. Extra assignments to improve grades **will NOT** be allowed. **Students who miss a quiz will either receive a zero (0%) grade or, if allowed through academic counselling (or the use of a SRA), will write the timed true/false with guessing penalty make-up quiz.**

Grades will not be adjusted on the basis of need. It is important to monitor your performance in the course. Remember: *You* are responsible for your grades in this course.

The DAN Department has a grade policy, which states that for courses in the 2000 range, the class average must fall between 65% and 72% for all sections of a course taught by the same instructor. In very exceptional circumstances only, class averages outside this range may be approved by the Undergraduate Chair or Chair. Class averages are not grounds for appeal.

7. Lecture and Evaluation Schedule (Monday Date given, materials are available on the e-book, Quizzes occur on OWL site)

Week 1, Monday Jan. 11, 2021, Introduction

- All Chapter 1

Week 2, Jan. 18 Visualizing Data with Charts and Graphs

- Chapter 2, sections 2.1, 2.2, 2.3, and 2.4
- Demonstration Problem 2.1
- Office hour video 2.41

Week 3, Jan. 25 Descriptive Statistics

- All Chapter 3
- Video: Computing Variance and Standard Deviation

Week 4, Feb. 1 ***Bi-weekly Quizzes start at 8am EST***

Quiz 1 covers sections from Chapters 1, 2, and 3.

Discrete Distributions

- Chapter 5, sections 5.1, 5.2, and 5.3
- Office hours video 5.35

Week 5, Feb. 8 Continuous Distributions, Sampling and Sampling Distributions

- Chapter 6, sections 6.1 and 6.2
- Office hours video 6.35
- Chapter 7, sections 7.1 and 7.2
- Demonstration Problem 7.2

Week 6, Feb. 22 **Quiz 2 at 8am EST covers sections from Chapters 5, 6, and 7.**

Analysis of Categorical Data (Chi-square)

- All Chapter 16
- Office hours video 16.19

Week 7, March 1 *t*-tests

- Chapter 8, section 8.2
- Office hours video 8.49
- Chapter 9, sections 9.1, 9.3, and 9.5
- Video: Establishing Hypotheses
- Chapter 10, sections 10.2 and 10.5

Week 8, March 8 **Quiz 3 at 8am EST covers sections from Chapters 16, 8, 9, and 10.**

Analysis of Variance (ANOVA)

- All Chapter 11
- Office hours video 11.49
- Suggested Ch. 11 questions 11.63 would be a good to master, plus 11.64 and 11.65

Week 9, March 15 Correlation and Simple Regression

- All Chapter 12
- Video: Testing the regression model I
- Suggested Ch. 12 questions 12.23, 12.43, 12.67, and be able to define each of the key terms. This section is more understanding than computation.

Week 10, March 22 **Quiz 4 at 8am EST covers sections from Chapters 11 and 12.**

Multiple Regression Analysis

- All Chapter 13
- Office hours video 13.27
- Suggested Ch. 13 questions 13.3, 13.7, 13.13, 13.23, 13.33, plus definitions

Week 11, March 22 Time-series Forecasting and Index Numbers

- Chapter 15, sections 15.1, 15.3, 15.4, and 15.6 (see also section 2.5)
- Office hours video 15.35
- Suggested questions: 15.1, 15.3, 15.21, 15.29, 15.45 (skip the D-W part), plus definitions for the assigned sections.

Week 12, April 5, **Quiz 5 at 8am EST covers sections from Chapters 13 and 15.**

8. Student Responsibilities

Students should familiarize themselves with Western University Senate Regulations, please see: http://www.uwo.ca/univsec/academic_policies/index.html.

8.1 Respect

Please act respectfully towards the Professor and your fellow students. Acting respectfully means addressing each other correctly in on-line communications.

8.2 Copyright Notice

Lectures and course materials are protected by copyright. You may take notes and make copies of course materials for your own educational use. You may **not** reproduce (or allow others to reproduce), post or distribute lecture notes and other course materials publicly and/or for commercial purposes.

9. Exam Policies

For all quizzes in the course, please note that the assessments are timed and that by cheating through consulting your textbook or a peer will take away from the exam time and you may not be able to finish the questions. Ethically, you are required to complete each of the quizzes independent of cheating aids.

10. E-mail Policies

The following policies apply to all emails between students and the Professor. Please respect the fact that the Professor receives hundreds of emails from students and must deal with those emails in a fair and organized manner. Unacceptable emails will receive a reply saying only "Please see Email Policies on the course outline".

10.1 UWO.CA Email Addresses Only

For privacy reasons, students must use their Western email accounts to contact the Professor. The Professor will not respond to emails from non-uwo.ca addresses (e.g. hotmail.com, gmail.com, etc.).

10.2 Subject Line Must Include Course and Section Number

The subject line of emails must contain the name or number of the course, and the section number in which the student is enrolled. The Professor teaches different courses and sections and cannot properly respond to questions if she does not know which course or section you are enrolled in.

10.3 Acceptable Emails

- SPECIFIC questions about the course content or materials
- asking to set up an appointment to ask questions or review an exam
- notification of illness or other special circumstances
- providing constructive comments or feedback about the course

10.4 Unacceptable Emails

- questions that may be answered on OWL or on this course outline
- asking when grades will be posted
- asking what grade a student received
- asking where or when a quiz is scheduled or the material covered on a quiz
- requests for grade increases, extra assignments, or reweighting of course components

11. Attendance

11.1 Short Absences.

If you miss a quiz due to minor illness or other problems, you may be able to write a make-up quiz if you are able to provide a doctor's note supporting your illness and the academic counsellor accepts the documentation.

11.2 Extended Absences.

If you are absent more than approximately two weeks or if you get too far behind to catch up, you should consider reducing your workload by dropping one or more courses. The Academic Counsellors can help you to consider the alternatives. At your request, they can also keep your instructors informed about your difficulties.

12. Grade Fairness

Fairness requires that all students be treated equally and be evaluated using the criteria set out in this course outline. The evaluation criteria are based on actual achievement and not on how hard a student has tried.

Claims by students of an excellent academic history, good attendance record, need to obtain or maintain a scholarship, desire to be admitted to lvey or graduate school, or other personal issues, cannot be used to justify a higher grade in the course or a reweighting of course components. There is no extra work or assignments available for extra credit or to "make up" for a course component that was missed or performed poorly.

13. Posting of Grades

Grades will be posted on OWL once the grades are available. Final course grades are not posted on OWL and are available once they have been posted by the Registrar under "Academic Summary" at the Student Centre website.

14. University Policy Regarding Illness

14.1 Illness

For details on University Policy and student responsibilities go to:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Consideration_for_absences.pdf

The current Illness Policy is available here (subject to change):

https://dan.uwo.ca/undergraduate/course_information/IllnessPolicy.pdf

14.2 Make Up Quizzes

Students must write a make-up quiz if the regularly scheduled quiz is missed for reasons for which adequate documentation is received by the instructor (this documentation must be supplied by the Academic Counseling office).

The date and time of the make-up quiz will be set by the instructor, who will communicate the date to the student. The make-up quiz will be a timed true/false with guessing penalty quiz.

If a student is unable to meet the scheduled make-up as agreed, then the student is responsible for obtaining new accommodations from Academic Counselling, and seeking a new make-up date with the instructor within a reasonable time frame.

15. University Policy on Cheating and Academic Misconduct

Students are responsible for understanding the nature of and avoiding the occurrence of plagiarism and other academic offenses. Students are urged to read the section on Scholastic Offenses in the Academic Calendar. Note that such offenses include plagiarism, cheating on an examination, submitting false or fraudulent assignments or credentials, impersonating a candidate, or submitting for credit in any course without the knowledge and approval of the instructor to whom it is submitted, any academic work for which credit has previously been obtained or is being sought in another course in the University or elsewhere. If you are in doubt about whether what you are doing is inappropriate, consult your instructor. A claim that "you didn't know it was wrong" will not be accepted as an excuse.

A copy of guidelines about how to avoid cheating can be obtained from the office of the Ombudsperson, Room 3135 WSSB, (519) 661-3573, ombuds@uwo.ca.

Cheating on exams will not be tolerated; students are referred to the university policy on scholastic offenses. Looking at the test of another student, allowing another student to view your exam, or obtaining information about a test in advance are all examples of cheating.

Students found cheating will receive a zero (0%) on that exam. A number of safeguards will be employed to discourage cheating. For example, examination supervisors (proctors) of the tests may ask students to

move to another seat during the exam, cover their paper, avert their eyes from other students' papers, remove baseball caps, etc. This is not meant as a personal affront nor as an accusation of cheating, rather as vigilant attempts at proctoring.

The penalties for a student guilty of a scholastic offense include refusal of a passing grade in the assignment, refusal of a passing grade in the course, suspension from the University, and expulsion from the University.

16. Procedures For Appealing Academic Evaluations

1. In the first instance, all appeals of a grade must be made to the course instructor (informal consultation).
2. If the student is not satisfied with the decision of the course instructor, a written appeal must be sent to the Undergraduate Chair: Student Affairs of the Department of Management and Organizational Studies.
3. If the response of the Undergraduate Chair is considered unsatisfactory to the student, he/she may then appeal to the Dean of the Faculty in which the course of program was taken.
4. Only after receiving a final decision from the Dean may a student appeal to the Senate Review Board Academic. A Guide to Appeals is available from the Ombudsperson's Office.

17. Support Services

17.1 Support Services

The Registrar's office can be accessed for Student Support Services at <http://www.registrar.uwo.ca>
Student Support Services (**including the services provided by the USC listed here**) can be reached at: <http://westernusc.ca/your-services/>

Student Development Services can be reached at: <http://www.sdc.uwo.ca/>

Students who are in emotional/mental distress should refer to Health and Wellness at Western University: <https://www.uwo.ca/health/> for a complete list of options about how to obtain help.

17.2 Academic Concerns.

If you are in academic difficulty, it is strongly recommended that you see your academic counsellor.