

MOS 2242B Section – 001 Statistics Winter 2020 Course Outline

1. Course Information:

1.1 Class Location and Time:

John Labatt Visual Arts Centre, room 100 (VAC-100) Wednesdays 12:30 p.m. – 3:30 p.m.

1.2 Contact Information:

Instructor: Dr. Livia Veselka

Office: Social Science Centre, room 4086 (SSC 4086)
Office Hours: Mondays & Thursdays, 9:00 a.m. - 10:30 a.m.

Phone: 661-2111 x80091 Email: lveselk@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.

3 lecture hours, 0.5 course

Antirequisite(s): 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.

Prerequisite(s): 1.0 course or equivalent from Calculus 1000A/B, Calculus 1301A/B, Calculus 1501A/B, Mathematics 1225A/B, Mathematics 1229A/B, Mathematics 1600A/B, and enrolment in BMOS.

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 regards 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

MOS 2242A/B: Business Statistics (custom edition). Boston, MA: Pearson Learning Solutions. [ISBN: 9781323941423, 1323941428]

The textbook cited above is a custom text that is available through the university bookstore. The textbook is <u>required</u>. There is no need to bring the textbook to lectures, unless you would like to have it there as an additional reference. Instead, <u>please bring a copy of the lecture slides to each lecture</u>, either in hard-copy form or on your computer. The lecture slides will be made available to you through the course site on OWL at the beginning of each lecture week. Please note that the lecture slides posted on OWL will be abbreviated.

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

Rooted in principles of the evidence-based management (EBM), this course will focus on enhancing students' ability to obtain and evaluate statistical evidence, which is critical for making a variety of business decisions and policies.

4.2 Course format

The course format will consist of lectures. There are no labs or tutorials. Material covered in lectures will not always be the same as material covered in the textbook. These two sources should be viewed as complementary and not redundant. As such, students who want to do well in this course are strongly encouraged to attend lectures on a regular basis. If students miss a lecture for any reason, it is their responsibility to catch up.

5. Learning Outcomes

- ability to conduct a hypothesis test and determine the difference between a one-tailed test and two-tailed test for when the population standard deviation is known and when it is unknown
- ability to list the statistics that appear in an ANOVA and a regression results table and to understand how they are computed
- ability to define when a time series represents a trend, a seasonal pattern, or a cyclical pattern, or is irregular

 ability to compute the degrees of freedom and examine the significance of the chi-square test statistic

6. Evaluation

There are three exams in this course:

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Exam 1 (Wednesday, February 5, 2020; 1:00 p.m. - 3:00 p.m.) = 33%

Exam 2 (Wednesday, March 11, 2020; 1:00 p.m. - 3:00 p.m.) = 33%

Exam 3 (to be scheduled during the April exam period) = 34%
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Exams are <u>multiple-choice in format</u>. Each exam, in total, will be scheduled for <u>2 hours</u>, will consist of <u>50-60 questions</u>, and will be a <u>closed book examination</u>. Dictionaries are NOT allowed into the examinations. All exams in the course are <u>not cumulative</u>. Therefore, students are required to write all three exams in this course.

Only non-programmable calculators will be allowed into the exams. If you are unsure, please ask your professor to check your calculator.

Each exam will have both conceptual and calculation questions. The following types of questions could come up:

- definitions/descriptions of terminology, theoretical concepts, analysis methods/procedures, formulas, assumptions, distributions, degrees of freedom, etc.
- graphs and charts: definitions, descriptions, components, process/method of building a graph/chart, interpretation of what the graph/chart shows, etc.
- calculation based on formulas
- interpretation of numbers (e.g., calculation result)
- interpretation of computer output
- understanding of choice of formulas, methods, graphs/charts, etc. (e.g., when and why would you use one formula over another?)

Students are responsible for material covered in the lectures as well as the assigned chapters and chapter sections in the textbook. Exams 1 and 2 will be completed during class time. Exam 3 will be scheduled during the final exam period. Exams will not be returned to students but may be reviewed in the instructor's office.

Students are **REQUIRED TO COMPLETE ALL COMPONENTS** of this course. There are no exceptions to this rule. Extra assignments to improve grades **will NOT** be allowed.

Exams will be scored using the program ScanExam which examines the answer sheets for unusual coincidences in the pattern of answers given which may be indicative and used as supporting evidence of cheating.

Grades <u>will not be adjusted</u> 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-level 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 Examination Schedule

Please refer to the lecture and examination schedule posted on OWL.

8. Student Responsibilities

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

Material covered in lectures will not always be the same as material covered in the textbook. These two sources should be viewed as complimentary and not redundant. As such, students who want to do well in this course are **strongly encouraged** to attend lectures on a regular basis. Please note that the instructor will not be providing copies of lectures notes or overheads. Therefore, if you miss a lecture, you should try to obtain this material from another student.

8.1 Respect

Please act respectfully towards the classroom, the Professor and your fellow students. Acting respectfully means arriving on time, turning off phones, avoiding private discussions during lectures, refraining from viewing non-course material on your laptops, and cleaning up after yourself. Acting respectfully provides a better learning experience for everyone.

Private in-class discussions are distracting to students and the Professor. If other students are distracting your attention from the material, you should ask them to be quiet. If you feel uncomfortable doing this (or the problem persists), please see the instructor.

Late arrivals are also distracting. Please try to arrive on time for classes.

8.2 No Recording of Classes

Students are <u>not</u> permitted to record any portion of a class, audio or video, without the prior written permission of the professor.

8.3 Copyright Notice

Lectures and course materials, including power point presentations, outlines, and similar materials, are protected by copyright. You may take notes and make copies of course materials for your own educational use. You may <u>not</u> record lectures, reproduce (or allow others to reproduce), post or distribute lecture notes, wiki material, and other course materials publicly and/or for commercial purposes without my written consent.

9. Exam Policies

- Bring student identification to exams.
- Nothing is to be on/at one's desk during an exam except a pencil, an eraser, and the individual's student card.
- Do not wear baseball caps to exams.
- Do not bring music players, cell phones, or other electronic devices to exams.
- To ensure fairness to all students, questions will not be answered during exams.

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 he does not know which course or section you are enrolled in.

10.3 Acceptable Emails

- 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 an exam is scheduled or the material covered on an exam
- requests for grade increases, extra assignments, or reweighting of course components

11. Attendance

It is expected that students will attend all classes. The professor does not provide access to lecture notes. Students are encouraged to obtain missed lecture notes from a fellow student.

11.1 Short Absences.

If you miss a class due to minor illness or other problems, check your course outlines for information regarding attendance requirements and make sure you are not missing a test or exam. Cover any readings and arrange to borrow the missed lectures notes from a classmate.

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 <u>Academic Counsellors</u> 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 Ivey 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

Midterm exam grades will be posted on OWL once the grades are available. Final exam grades and final course grades are not posted on OWL and are available once they have been posted by the Registrar under "Academic Summary" at the <u>Student Centre</u> 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_abs ences.pdf

Students who experience an extenuating circumstance (illness, injury, or other extenuating circumstance) sufficiently significant to temporarily render them unable to meet academic requirements may submit a request for academic consideration through the following routes:

- i. Submitting a Self-Reported Absence form provided that the conditions for submission are met (maximum of 2 from September to April, valid for 48 hours or less, on course work worth less than 30%); or
- For medical absences, submitting a Student Medical Certificate (SMC):
 https://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf
 signed by a licensed medical or mental health practitioner in order to be eligible for Academic Consideration; or
- iii. For non-medical absences, submitting appropriate documentation (e.g., obituary, police report, accident report, court order, etc.) to Academic Counselling in order to be eligible for academic consideration. Students are encouraged to contact their Academic Counselling unit to clarify what documentation is appropriate.

Students seeking academic consideration:

- are advised to consider carefully the implications of postponing tests or midterm exams or delaying handing in work;
- are encouraged to make appropriate decisions based on their specific circumstances, recognizing that minor ailments (upset stomach) or upsets (argument with a friend) are not an appropriate basis for a self-reported absence;
- must communicate with their instructors no later than 24 hours after the end of the period covered by either the self-reported absence or SMC, or immediately upon their return following a documented absence.

14.2 Make Up Examinations

The student must write a make-up exam if the regularly scheduled exam is missed for reasons for which adequate documentation is received by the instructor (this documentation must be supplied by the <u>Academic Counseling office</u>).

The date and time of the make-up examination will be set by the instructor, who will communicate the date to the student.

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 <u>Academic Calendar</u>. 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).
- 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 <u>Ombudsperson's Office</u>.

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/services/

Student Development Services can be reached at: http://www.sdc.uwo.ca/
Students who are in emotional/mental distress should refer to Mental Health@Western http://www.health.uwo.ca/mental_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 <u>academic counsellor</u>.