

**Statistical Science 1024B - Introduction to Statistics**  
**Section 200 (Blended)****Instructor Information**

<b>Instructor</b>	Devan Becker
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<b>Office Hours</b>	Mon at 1-2pm, Tues at 930-1030am, and Thurs at 3-4pm in WSC 107
<b>Tutorial Hours</b>	Tuesdays at 1:30-3:30pm and 3:30-5:30pm

**Course Information**

<b>Course Description</b>	Statistical inference, experimental design, sampling design, confidence intervals and hypothesis tests for means and proportions, regression and correlation.
<b>Prerequisites</b>	Grade 12U Mathematics or Mathematics 0110A/B or 1229A/B, Grade 12U Mathematics or Mathematics 0110A/B or 1229A/B, or the former Mathematics 017A/B. In case of conflict or questions, consult the Academic Counselling Office of your home department.
<b>Antirequisites</b>	All other courses or half courses in Introductory Statistics, except Statistical Sciences 1023A/B and 2037A/B. For a full list of Introductory Statistics courses, see <a href="http://westerncalendar.uwo.ca/2017/pg1590.html">http://westerncalendar.uwo.ca/2017/pg1590.html</a> . You cannot take a listed anti-requisite course concurrently with Statistical Sciences 1024A/B. If you do, you will lose credit for that course without reimbursement.
<b>Pre,Co-requisites Warning</b>	Unless you have either the prerequisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. You can be deregistered at any time even after writing the final exam. 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.
<b>Tutorial Hours</b>	Mandatory tutorials are held Tuesdays at 3:30pm and 5:30pm in UCC37. Since space is limited, students MUST attend the tutorial that they are registered in.
<b>Textbook</b>	The Basic Practice of Statistics (8 <sup>th</sup> ed.), Moore, Notz, and Fligner. The online textbook resources are optional for this course, but there will be assigned homework problems from the 8 <sup>th</sup> edition of the book.

**Course Objectives**

The course provides an introduction to statistics. By the end of the course the students should have a basic understanding of:

1. The techniques used in exploring, organizing and describing data;
2. Producing data through surveys and experiments;
3. General rules of probability;
4. Statistical inference; including confidence interval construction and hypothesis tests.

Students should check OWL (<http://owl.uwo.ca>) on a regular basis for news and updates. This is the primary method by which information will be disseminated to all students in the class.

## Methods of Evaluation

The overall course grade will be calculated as listed below:

Tutorial Assignments (best 4 of 5)	20%
Microlecture or Article Analysis	5%
Tutorial Participation	5%
Midterm – Saturday, March 2 <sup>nd</sup>	30%
Final Exam	40%

### Homework

A list of suggested homework problems from the 7<sup>th</sup> edition of the textbook will be posted on the course website. This will be updated throughout the term. Student's homework solutions are not to be handed in. However, working on these problems regularly and diligently is essential to success in the course. In addition to the posted list of homework problems, you are strongly encouraged to attempt additional problems for extra practice.

### Tutorial Assignments

There will be a total of 5 tutorial assignments. These assignments are to be completed during the weekly tutorials. The tutorial assignment schedule will be posted on OWL (tentatively, these will be on Jan 29<sup>th</sup>, Feb 12<sup>th</sup>, and March 12<sup>th</sup>, 26<sup>th</sup>, and April 9<sup>th</sup>, but this is subject to change). Students will be given 50 minutes to complete the assignment and are allowed to use any of the course resources (any resources from outside the course, such as materials from previous sections, are not allowed). In preparation for the tutorial, students are expected to have reviewed the scheduled text and lecture material and completed the assigned homework.

Your tutorial assignment mark will be calculated using your best 4 out of 5 grades - you can miss a single assignment for any reason without needing to provide documentation. If you miss more than one assignment, the first assignment that you miss will be counted as the assignment that is dropped. The policy in the section entitled "Accommodation and Accessibility" below will apply to any additional missed assignments.

### Microlecture or Article Analysis

Each student must either present a 3 minute "microlecture" presentation on selected subjects from the course material with a suggested exam-style question OR write an analysis of the statistics used in a news article or scientific journal. Suggested presentation topics will be given in tutorials. Presentations will be evaluated on the clarity of the explanation and the effectiveness of the suggested question. Article analyses will be evaluated on the relevance of the article and the insight shown by the student. Limited slots exist for the presentations; article analyses are due no later than April 2<sup>nd</sup>. Students will only be evaluated on one of the two options (there are no bonus marks for completing both). Students who complete neither option will get 0 on this section.

### Tutorial Participation

Participation marks will be based on the number of iClicker quizzes that the student answered (not the number correct/incorrect answers). The participation quizzes will occur during tutorials where there is no graded work.

### Midterm

There will be a two hour multiple choice midterm on March 2<sup>nd</sup> at 4pm, location to be announced. A non-programmable calculator will be allowed. All relevant tables and some formulas will be provided. Students will be notified in advance which formulas will be provided.

**Final Exam**

The Final Exam will be a three-hour cumulative multiple choice examination covering all material in the course. It will be scheduled by the Registrar's Office. A non-programmable calculator will be allowed.

**Checking Marked Work**

In the event of a question regarding a tutorial assignment mark, students are responsible for retaining and presenting any graded materials. Students have one week from the date the tutorial assignment was returned to report any apparent error in the marking and appeal their grade. No marks will be changed after that time. The instructor reserves the right to remark the entire assignment.

**Course Lectures, Tutorials, and Forums**

This section of SS1024B is a blended course. Readings will be posted on OWL well before each tutorial. Students are expected to complete the textbook readings on their own before attending the tutorials. Tutorial activities will be graded and will require knowledge of the relevant text sections.

Tutorials are mandatory. Students must register for and attend the weekly tutorial sessions for this course in person, on campus. The tutorials will be an opportunity to explore the topics covered in the textbook in an interactive classroom setting. We will discuss the course material as well as work through problems, such as selected homework and other tutorial-specific exercises.

You are encouraged to use the forums on OWL to ask any questions you might have about the course materials that are not covered in the textbook or tutorials. The instructor will participate in the online forums, including adding discussion as well as acting as a moderator. Active participation in the forums will aid in your understanding of the statistical topics covered in this course.

In addition to the forums, you are encouraged to go to the Statistics Help Center in Middlesex College with questions about the course material. This is a service offered by the Department of Statistical and Actuarial Sciences to aid undergraduate students in statistics courses.

**Accommodation and Accessibility**

If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or supporting documentation to the Academic Counselling Office of your home faculty as soon as possible. If you are a Science student, the Academic Counselling Office of the Faculty of Science is located in WSC 140, and can be contacted at [scibmsac@uwo.ca](mailto:scibmsac@uwo.ca).

For further information, please consult the university's medical illness policy at [http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/accommodation\\_medical.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf).

If a valid, documented reason is given for missing an assignment or midterm, it is standard policy that the weight of the missed assignments and/or midterm will be added to the Final Exam. Otherwise, a grade of 0 will be assigned.

If you miss the Final Exam, please contact your faculty's Academic Counselling Office as soon as you are able to do so. They will assess your eligibility to write the Special Exam (the name given by the university to a makeup Final Exam).

You may also be eligible to write the Special Exam if you are in a “Multiple Exam Situation” (see [http://www.registrar.uwo.ca/examinations/exam\\_schedule.html](http://www.registrar.uwo.ca/examinations/exam_schedule.html)).

## Academic Policies

The website for Registrarial Services is <http://www.registrar.uwo.ca>.

In accordance with policy, <http://www.uwo.ca/its/identity/activatenonstudent.html>, the centrally administered e-mail account provided to students will be considered the individual’s official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at his/her official university address is attended to in a timely manner.

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at this website: [http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/scholastic\\_discipline\\_undergrad.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf).

Computer-marked, multiple-choice tests and exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

## Support Services

Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 ext. 82147 if you have questions regarding accommodation.

The policy on Accommodation for Students with Disabilities can be found here: [www.uwo.ca/univsec/pdf/academic\\_policies/appeals/accommodation\\_disabilities.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_disabilities.pdf)

The policy on Accommodation for Religious Holidays can be found here: [http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/accommodation\\_religious.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_religious.pdf)

Learning-skills counsellors at the Student Development Centre (<http://www.sdc.uwo.ca>) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.

Students who are in emotional/mental distress should refer to Mental Health@Western ([http://www.health.uwo.ca/mental\\_health](http://www.health.uwo.ca/mental_health)) for a complete list of options about how to obtain help.

Additional student-run support services are offered by the USC, <http://westernusc.ca/your-services>.