

STATS 2141A Course Outline

Applied Probability and Statistics for Engineers

1. Course Information

Course Information

Section 001

Lectures	Monday	1:30-2:30pm	MC-110
	Wednesday	1:30-2:30pm	MC-110
	Friday	1:30-2:30pm	MC-110
Tutorial	Wednesday	5:30-6:30pm	NSC-1

Section 002

Lectures	Monday	6:30-7:30pm	MC-110
	Tuesday	5:30-6:30pm	MC-110
	Friday	12:30-1:30pm	NSC-1
Tutorial	Tuesday	11:30am-12:30pm	SSC-2050

List of Prerequisites

0.5 course from Numerical and Mathematical Methods 1412A/B, Calculus 1000A/B, Calculus 1500A/B, the former Applied Mathematics 1412A/B, plus 0.5 course from Numerical and Mathematical Methods 1414A/B, Calculus 1301A/B, Calculus 1501A/B, the former Applied Mathematics 1414A/B. The former Applied Mathematics 1413 may also be used to meet this 1.0 course prerequisite.

Unless you have either the prerequisites for this course or written special permission from the Department of Statistical and Actuarial Sciences to enroll in it, you may be removed and withdrawn from this course in accordance with university policy. This may be done after the add/drop deadline of the academic term, and the course will be marked as withdrawn (WDN) on your academic record. This decision may not be appealed.

2. Instructor Information

Instructors	Email	Office	Phone	Office Hours
Dr. Simon Bonner (Course Coordinator)	sbonner6@uwo.ca	WSC 276	X88205	TBD
Dr. Peiheng Gao	pgao47@uwo.ca	WSC 214A		TBD

Students must use their Western (@uwo.ca) email addresses when contacting their instructors.

3. Course Syllabus, Schedule, Delivery Mode

This course provides an introduction to statistics with emphasis on the applied probability models used in Electrical and Civil Engineering and elsewhere. Topics covered include samples, probability, probability distributions, estimation, hypothesis testing, confidence intervals, correlation and regression.

A full schedule of the lectures and tutorials will be posted on OWL and updated during the semester if necessary.

Important Dates:

Classes begin: September 4, 2025

National Day of Reconciliation: September 30, 2025

Thanksgiving: October 13, 2025

Fall Reading Week: November 3 – 9, 2025

Classes end: December 9, 2025

Exam period: December 11 – 22, 2025

4. Course Materials

Costs of Textbooks and Other Learning Materials/Activities

Information on the cost of the textbook is available on the [course site of the Dellelce Family Bookstore](#).

Textbook and Other Learning Materials

• Required textbook:

Montgomery, D.C., Runger, G.C., and Hubele, N.F. (2011) *Engineering Statistics*. 5th edition. John Wiley and Sons. ISBN: 978-1-118-13799-4.

Further course material may be posted to OWL: <https://westernu.brightspace.com/>. Students are responsible for checking the course OWL site regularly for news and updates. This is the primary method by which information will be disseminated to all students in the class.

If students need assistance with the course OWL site, they can seek support on the [OWL Brightspace Help](#) page. Alternatively, they can contact the Western Technology Services Helpdesk. They can be contacted by phone at 519-661-3800 or ext. 83800.

5. Methods of Evaluation

Grading Scheme and Assessment Dates

Your understanding of the material will be based on a series of quizzes, a Midterm Examination, and the Final Examination. However, the grading scheme is flexible, and you may replace the grades on some assessments with grades on related assessments to prove your proficiency.

Your final grade will be computed based on three components as shown:

Component #1 (30%)	Component #2 (30%)	Component #3 (40%)
Average of Quiz 1 & Quiz 2	Average of Quiz 3 & Quiz 4	Final Examination
OR	OR	
Midterm Examination	Final Examination	

Specifically :

- Component #1 will comprise 30% of your final grade determined by the maximum of a) your average score on Quiz 1 and Quiz 2 (each worth 15% of your final grade) and b) your grade on the Midterm Examination.
- Component #2 will comprise 30% of your final grade determined the maximum of a) your average score on Quiz 3 and Quiz 4 (each worth 15% of your final grade) and b) your grade on the Final Examination.
- Component #3 will comprise 40% for your final grade determined by your grade on the Final Examination.

The quizzes will cover the topics in the following sections of the textbook along with any additional material presented during the lectures no later than two weeks before the date of the assessment:

- Quiz 1: Friday October 3
 - o Sections 1.1 & 1.2, 2.1-2.6, 3.1-3.3
- Quiz 2: Friday October 24
 - o Sections 3.4-3.12
- Quiz 3: Friday November 30
 - o Sections 1.4, 3.13, 4.1-4.5
- Quiz 4: Friday December 5
 - o Sections 4.6-4.7, 5.1-5.6

Quizzes will be held in-person during the lectures on the specified day.

The Midterm Examination will cover all material covered on Quizzes 1 and 2.
The Final Examination will be cumulative and cover all of the course material.

Times and locations for the Midterm and Final Examination will be announced in lecture and posted on OWL as soon as possible.

Use of Generative AI Tools

The use of Generative AI Tools (ChatGPT, Gemini, Co-Pilot) and any other forms of electronic assistance are strictly forbidden on all assessments. Any student caught using an unauthorized electronic device will be considered to have committed a [scholastic offence](#) and punished accordingly.

General information about missed coursework

Students must familiarize themselves with the *University Policy on Academic Consideration – Undergraduate Students in First Entry Programs*, posted on the Academic Calendar:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/academic_consideration_Sep24.pdf,

This policy does not apply to requests for Academic Consideration submitted for **attempted or completed work**, whether online or in person.

The policy also does not apply to students experiencing longer-term impacts on their academic responsibilities. These students should consult [Accessible Education](#).

For procedures on how to submit Academic Consideration requests, please see the information posted on the Office of the Registrar's webpage:

https://registrar.uwo.ca/academics/academic_considerations/

All requests for Academic Consideration must be made within 48 hours after the assessment date or submission deadline.

All Academic Consideration requests must include supporting documentation; however, recognizing that formal documentation may not be available in some extenuating circumstances, the policy allows students to make one Academic Consideration request **without supporting documentation** in this course. However, the following assessment is excluded from this, and therefore always require formal supporting documentation:

- Midterm Examination
 - Note that the policy for Academic Consideration without supporting documentation requires that students are provided with another opportunity to demonstrate proficiency in the content evaluated by this assessment within the time frame of the course. This is provided by Quizzes 1 & 2 and so no make-up midterm will be provided.
 - Any student who misses the Midterm Examination will receive a grade of 0. Component #1 of their grade will then be based on the average of Quizzes 1 and 2 except as outline below.

When a student *mistakenly* submits their one allowed Academic Consideration request **without supporting documentation** for the assessments listed above or those in the **Coursework with Assessment Flexibility** section below, the request cannot be recalled and reapplied. This privilege is forfeited.

Coursework with Assessment Flexibility

The assessments for this course have been designed to provide multiple opportunities for you to demonstrate your understanding of the course material and flexibility in calculating your final grade. As per the policy for Academic Consideration: "An instructor may deny academic consideration for any assessment that is not required in the calculation of the final grade". This implies that requests for academic consideration without support consideration may be denied for all quizzes and the Midterm Examination, since alternative methods of assessment are provided.

The Final Examination is excluded from the policy for Academic Consideration without supporting documentation, and always requires formal supporting documentation as defined by the policy

Evaluation Scheme for Missed Assessments

If you are granted Academic Consideration for Quiz 1 (with supporting documentation), then your grade for that quiz will be replaced by your grade on the Midterm Examination (weighted to 15% of your final grade).

If you are granted Academic Consideration for Quiz 2 (with supporting documentation), then your grade for that quiz will be replaced by your grade on the Midterm Examination (weighted to 15% of your final grade).

If you are granted Academic Consideration for Quiz 3 (with supporting documentation), then your grade for that quiz will be replaced by your grade on the Final Examination (weighted to 15% of your final grade).

If you are granted Academic Consideration for Quiz 4 (with supporting documentation), then your grade for that quiz will be replaced by your grade on the Final Examination (weighted to 15% of your final grade).

If you write both Quiz 1 and Quiz 2 but are granted Academic Consideration for the Midterm Examination (with supporting documentation), then your grade for Component #1 will be the average of your grades on Quiz 1 and Quiz 2.

If you are granted Academic Consideration for either Quiz 1 or Quiz 2, or both, and the Midterm Examination (all with supporting documentation), then your grade for Component #1 will be replaced by your grade on the Final Examination (weighted to 30% of your final grade).

When a student misses the Final Exam and Academic Consideration has been granted, they will be allowed to write the Special Examination (the name given by the University to a makeup Final Exam). See the Academic Calendar for details (under [Special Examinations](#)), especially for those who miss multiple final exams within one examination period.

6. Additional Statements

6.1 Religious Accommodation

When conflicts arise with a religious holiday that requires an absence from the University or prohibits certain activities, students should request an accommodation for their absence in writing to the course instructor and/or the Academic Advising office of their Faculty of Registration. This notice should be made as early as possible, but not later than two weeks prior to the writing of the examination (or one week prior to the writing of the test).

Please visit the Diversity Calendars posted on our university's EDID website for the recognized religious holidays - <https://www.edi.uwo.ca>

6.2 Academic Accommodation Policies

Students with disabilities are encouraged to contact Accessible Education, which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The policy on Academic Accommodation for Students with Disabilities can be found at:

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

6.3 General Academic Policies

The website for Registrar Services is <https://www.registrar.uwo.ca/>.

Use of @uwo.ca email: In accordance with policy, https://www.uwo.ca/univsec/pdf/policies_procedures/section1/mapp113.pdf, the centrally administered e-mail account provided to students will be considered the individual's official university email address. It is the responsibility of the account holder to ensure that emails received from the University at their official university address are attended to in a timely manner.

Requests for Relief (formally known as “appeals”)

Policy on Request for Relief from Academic Decision:

https://uwo.ca/univsec/pdf/academic_policies/appeals/requests_for_relief_from_academic_decisions.pdf

Procedures on Request for Relief from Academic Decision (Undergraduate):

https://uwo.ca/univsec/pdf/academic_policies/appeals/undergrad_requests_for_relief_procedure.pdf

6.4 Scholastic Offences

Policy on Scholastic Offences:

https://uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_offences.pdf

Procedures on Scholastic Offences (Undergraduate):

https://uwo.ca/univsec/pdf/academic_policies/appeals/undergrad_scholastic_offence_procedure.pdf

Use of Electronic Devices During Assessments

In courses offered by the Faculty of Science, the possession of unauthorized electronic devices during any in-person assessment (such as tests, midterms, and final examinations) is strictly prohibited. This includes, but is not limited to: mobile phones, smart watches, smart glasses, and wireless earbuds or headphones.

Unless explicitly stated otherwise in advance by the instructor, the presence of any such device at your desk, on your person, or within reach during an assessment will be treated as a *scholastic offence*, even if the device is not in use.

Only devices expressly permitted by the instructor (e.g., non-programmable calculators) may be brought into the assessment room. It is your responsibility to review and comply with these expectations.

Use of Generative AI Tools

Unless otherwise stated, the use of generative AI tools (e.g., ChatGPT, Microsoft Copilot, Google Gemini, or similar platforms) is **not permitted** in the completion of any course assessments, including but not limited to: assignments, lab reports, presentations, tests, and final examinations.

Using such tools for content generation, code writing, problem solving, translation, or summarization—when not explicitly allowed—will be treated as a **scholastic offence**.

If the use of generative AI is permitted for a particular assessment, the conditions of use will be specified by the instructor in advance. If no such permission is granted, students must assume that use is prohibited. It is your responsibility to seek clarification before using any AI tools in academic work.

6.5 Support Services

Please visit the Science & Basic Medical Sciences Academic Advising webpage for information on adding/dropping courses, academic considerations for absences, requests for relief, exam conflicts, and many other academic-related matters: <https://www.uwo.ca/sci/counselling/>.

Students who are in emotional/mental distress should refer to Mental Health@Western (<https://uwo.ca/health/>) for a complete list of options about how to obtain help.

Western is committed to reducing incidents of gender-based and sexual violence (GBSV) and providing compassionate support to anyone who has gone through these traumatic events. If you have experienced GBSV (either recently or in the past), you will find information about support services for survivors, including emergency contacts at:

https://www.uwo.ca/health/student_support/survivor_support/get-help.html.

To connect with a case manager or set up an appointment, please contact support@uwo.ca.

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. If you have any questions regarding accommodations, you may also wish to contact Accessible Education at

http://academicsupport.uwo.ca/accessible_education/index.html

Learning-skills counsellors at Learning Development and Success (<https://learning.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.

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