

BIOLOGY 2244B v Analysis & Interpretation of Biological Data
and
STATISTICS 2244B v Statistics for Science
Winter 2019

Calendar Descriptions

Stat 2244: An introductory course in the application of statistical methods, intended for students in departments other than Statistical and Actuarial Sciences, Applied Mathematics, Mathematics, or students in the Faculty of Engineering. Topics include sampling, confidence intervals, analysis of variance, regression and correlation. Cannot be taken for credit in any module in Statistics, Actuarial Science, or Financial Modeling.

Biol 2244: Measurement, sampling, estimation, and statistical hypothesis testing are considered: theory, intuitive background, and practical relevance will be stressed.

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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.

Course Timetable

Lectures: Sect 001 Wednesdays and Fridays 12:30 pm to 1:30 pm in NS 1
Sect 002: Tuesdays and Thursdays, 3:30 pm to 4:30 pm in NCB101

Labs:

Section	Day	Time	Location
003	Tu	6:30 to 9:20 pm	HSB 14
004	Tu	6:30 to 9:20 pm	NCB 105
005	W	6:30 to	
	Th	6:30 to 9:20 pm	HSB 13
011	Tu	1:30 to 4:20 pm	HSB13
012			

Assessment and Evaluation

The evaluation in this course is set up to promote mastery of the material and skills by the end of the course, and to provide opportunities to learn from mistakes. To achieve these objectives, I use a flexible assessment and evaluation scheme. The base distribution of grades for the course initially follows the following two schemes, and then it is tailored further by alternative test weighting scenarios described below under Flexible Grading. In all cases, your final course grade will automatically be calculated to give you the highest mark possible.

Component	Scheme 1	Scheme 2	Learning objectives
Course Structure Quiz	1%	1%	-

Course Structure Quiz

- Purpose:** To motivate you to understand the course structure and policies, so you know what expected/needed to be successful in the course
- Format:** Multiple choice/true/false quiz administered through OWL Tests & Quizzes
Approximately 710 questions. Students may use non-programmable calculators.
- Details:** Requires thorough understanding of the content of this course syllabus, and a careful exploration and observation of the structure and content of the OWL course website.
- Grading scheme:** Your mark out of 1% is calculated based on the percentage of questions answered correctly (e.g. 6/10 correct questions results in a mark of 0.6% of the possible 1%).
- Accommodations:** The quiz is available for approximately one week at the beginning of the course. Students should endeavor to complete the quiz as early as possible in the available period so that any problems can be dealt with accordingly. No accommodation for missing the quiz will be provided after the final deadline.

Clicker Participation.

- Purpose:** To provide real-time, formative feedback on your preparation for class and comprehension of course material;
To provoke thought, discussion, and engagement with course material during class.
- Format:** Multiple choice questions asked at various times during each lecture session
Approximately 35 questions each class.
- Details:** Information on setting up your clicker accounts is available for approximately

Preparation Quizzes

- Purpose:** To assess your understanding of foundational vocabulary or concepts needed for upcoming lectures/labs
To encourage you to actively complete and engage with the course material on a regular schedule
- Format:** Multiple choice/true/false/numeric response questions administered through OWL Tests & Quizzes. Limited time for completion once a quiz is started. Typically 4-10 questions. Students may use non-programmable calculators.
- Details:** Information on the testable content for each quiz is described on the relevant Module page.

Accommodations: Activities are typically available for 36 hours, or frequently, longer. Consequently, no accommodation will be given for missed Activities. If you have extenuating circumstances that make you unable to complete many Activities, please speak with your instructor.

Lab Assignments

Purpose: To

Tests.

Purpose: To assess your understandingj application

Academic Policies

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

In accordance with policy <http://www.uwo.ca/its/identity/activate-nonstudent.html>

the centrally administered university email address. It is the responsibility of the account holder to ensure that mail received from the University at his/her official university address is attended to in a timely manner.

Scholastic Offences. Students are directed to the appropriate policy document for the definition of what constitutes a Scholastic Offence, at this website: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf

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 240, and can be contacted at scibmsac@uwo.ca.

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Classroom Environment

The Department of Statistics and Actuarial Sciences has adopted a "Mutual Expectations" policy governing the classroom environment and all work submitted by students. The full text of the policy can be found at: <http://www.uwo.ca/stats/undergraduate/mutualexpectations.html> In summary, the policy was developed under the premise that all interactions between students and faculty should be governed by the principles of courtesy, respect and honesty.

Support Services

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 607-111 ext. 82147 for any specific 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

The policy on Accommodation for Religious Holidays can be found here:
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

Course Schedule

The following schedule is tentative; some adjustments may be made as the course progresses, depending on the rate at which individual topics are covered. At certain points in the course, you will be responsible for covering some course material on your own time (e.g. through reading or posted assignments) and level of complexity. Their position in this schedule is a suggestion, i.e. based on when they are most relevant to students will have the relevant background. Individual students, however, may choose to cover the material at any time they wish (acknowledging that the material may be testable on subsequent quizzes, etc.).

Due dates provided in this schedule are currently tentative. Generally, Assignments for labs will be due the week specified, although the particular day of the week may vary (to align with coverage of relevant material in lectures). For Activities, the time required for completion is an estimate only; this may vary from student to student. As well, some Activities may be added or removed throughout the course; changes will always be announced during class and clearly documented (with deadlines) through the OWL site. For Quizzes, chapters listed are relevant to the quizzes; the quiz may not test on the entire chapter.

Week	Course Topics	Projected Due Dates (quizzes, activities, labs, tests)
Jan 7-11	<p>Lecture 1 Being successful in 2244</p> <p>Lecture 2 PPDAC: a scientific inquiry</p> <p>Independent Study Sampling and study designs</p> <p>Labs: none</p>	<p>Activity: How will you study for 2244? (2 points, 10 min)</p> <p>Activity:</p>

Feb 25 Mar 1

[Lecture 13](#) Sampling distribution (foundations)

[Lecture 14](#) $K_v \cdot u \% o \cdot / () \text{CE} \quad u \quad v \quad \sim \wedge \quad v \quad o \quad \text{C} \cdot] \cdot _ \cdot$

[Labs](#): Science communication Figures & Assignment 2 work/help period

