



THE OHIO STATE UNIVERSITY

STAT 3410

Principles of Data Collection and Analysis (25206)

Autumn 2026

Syllabus - Instructor Information

Oksana Chkrebtii

Professional Qualifications

PhD, Statistics, Simon Fraser University

MSc, Probability and Statistics, Carleton University

BMath Combined Honours, Statistics and Economics, Carleton University

Syllabus - Required or Recommended Readings

The required textbook for this course is:

Design and Analysis of Experiments, 10th edition, by Douglas C. Montgomery, Wiley, 2019

This textbook is also available online via the CarmenBooks links in the Carmen course menu. Textbook content will be supplemented with additional material.

Syllabus - Course Schedule

Week	Topics / Material	# of lectures	Notes
Week 1	Course introduction and logistics. Review of basic principles of statistical inference	2	Classes begin on Wednesday
Week 2	Review of one-sample tests (simple hypotheses)	3	Monday is Labor Day; no class
Week 3	One-sample tests (composite hypotheses)	2	-
Week 4	One-sample tests (composite hypotheses)	3	-
Week 5	One-sample tests (unknown variances) and two-sample tests	3	Test: Friday, Sept. 25
Week 6	Two-sample tests	3	-
Week 7	Modeling and designs with one source of variation	3	-

Week	Topics / Material	# of lectures	Notes
Week 8	Modeling and designs with one source of variation	2	Friday is Fall Break; no class
Week 9	Checking model assumptions and sample size determination	3	Test: Friday, Oct. 23
Week 10	Inferences about contrasts and treatment means	3	-
Week 11	Inferences about contrasts and treatment means	3	-
Week 12	Experiments with multiple crossed treatment factors	2	-
Week 13	Experiments with multiple crossed treatment factors	3	Test: Friday, Nov. 20
Week 14	Experiments with multiple crossed treatment factors	1	Wednesday and Friday are Thanksgiving Break; no class

Week	Topics / Material	# of lectures	Notes
Week 15	Experiments with multiple crossed treatment factors	3	-
Week 16	Experiments with multiple crossed treatment factors	2	-
Final Exam	Comprehensive final exam	-	As scheduled by the registrar, in the regular classroom. Thursday December 17, 4:00pm-5:45pm

Syllabus - University Policies

Office of Undergraduate Education - Standard Syllabus Statements

- [Academic Misconduct](#)
- [Religious Accommodations](#)
- [Accommodations for Disability and Illness](#)
- [Intellectual Diversity](#)
- [Grievances and Solving Problems](#)
- [Creating an Environment Free from Harassment, Discrimination, and Sexual Misconduct](#)
- [Copyrights](#)
- [Content Warnings](#)
- [Mental Health Support](#)
- [Resources for Military-Connected Students](#)

- Campus-wide Class Cancellations