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SOCI 202.01: Social Statistics

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Social Statistics
SOCI 202 Spring 2018
Liberal Arts 304
MWF 10:00-10:50

Teaching team information

Instructor: Dustin Satterfield (she/her/hers pronouns)

Social Sciences 319

dustin.satterfield@umontana.edu

Office hours: Tuesday 11:00-12:15 pm, Wednesday 2:00-3:30 pm, and by appointment

Teaching Assistant: Hannah Fields

Social Sciences 304

hannah.fields@umconnect.edu

Office hours: Monday 9:00-10:00 am, Thursday 1:00-2:00 pm, and by appointment

Preceptor: Denise Lafontaine

Office _____

denise.lafontaine@umconnect.umt.edu

Office hours:

I reserve the right to make changes to this syllabus at any time. Changes will be announced in class and posted on the Moodle page.

Course description

The goal of this course is to introduce you to basic statistical concepts and techniques and to provide a basic understanding of statistics and statistical methodology with an emphasis on social science applications. The information gained will provide you with a foundation to understand the statistics often visible in our daily lives, in the newspaper, and other media. It will also give you the tools needed to enroll in more advanced statistics courses, if you choose to do so.

There are a variety of topics covered in this course. These will range from basic organization of data, graphic presentation of data, probability, sampling distributions, and statistical inference. Emphases will be placed on the applied understanding of statistical methods, the use of computer applications, and critical interpretation of results.

Learning outcomes

Upon completion of the course, you will be able to demonstrate an understanding of the symbols used in statistical research and how they transform numbers to give them meaning. This will include relaying, interpreting, and effectively communicating social information in terms of statistical symbols, operations, and reasoning; and applying creative thinking skills using the language and logic of statistical analysis in order to address a variety of applied and theoretical social problems.

Required textbooks

Healy, Joseph F. 2011. Statistics: A Tool for Social Research, 9th Edition. Wadsworth: Belmont, CA.

You are welcome to use other editions of this textbook with the understanding that the content may vary.

Access to SPSS

SPSS stands for “Statistical Program for the Social Sciences” and is the software that you will use when you analyze data and you will need to use it for your problem set assignments. There are multiple places on campus for you to access SPSS including the library and the SSRL in Social Sciences 258. You may want to have your own copy of SPSS (a base version is available for rent at a reduced price for students) so that you can conduct data analysis at home, on your own computer. See the link and details for obtaining the software on Moodle.

Exams

During exams, students are allowed only the use of a personal calculator; cell phones, tablets, and other electronic devices will not be permitted. Any student found in violation of these mandates will receive a zero on the exam and will be required to meet with me to discuss whether or not they are eligible to continue on with the course.

Students who arrive late to an exam will not get extra time to complete the exam. Make-up exams are available only under two conditions: 1) you have a valid excuse (this almost always means a legitimate medical excuse with adequate documentation); or 2) you must receive my permission to miss the exam at least 72 hours prior to the exam. It is your responsibility to provide legitimate written verification of your excuse to me. If I do not receive verification from you, you will not be allowed to take a make-up exam.

Exam dates:

Exam 1: February 9

Exam 2: March 2

Exam 3: March 23

Exam 4: April 20

Exam 5: May 9

The final exam will be on Wednesday, May 9th at 10:10 to 12:10 in our normal meeting place.

Course guidelines and policies

Academic honesty

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the [Student Conduct Code](#), which is available for review online.

Make sure that your work is your own. Students are encouraged to practice problems and work on homework with classmates to facilitate your learning of statistics. However, students must turn in their own separate problem sets. Don't get confused by what is acceptable and what is not. In this class, discussion of ideas and statistical methods is permitted, and encouraged among classmates. Writing collaboration, however, is not permitted and students should be careful not

to work directly from a classmate's notes, not to copy another's paper or exam, and not to let others view their exam. Turning in a homework assignment that you did not personally complete is plagiarism.

If this is unclear, please ask.

Attendance

You are expected to attend class. It will be very difficult to succeed if you do not attend regularly. Statistics are based on a building block principle where later ideas build upon previous ones. The teaching team will not provide notes or schedule special meeting times to go over material that is missed due to a non-university sanctioned absence. You will be responsible for any material you missed; I recommend that you meet with a classmate to discuss topics that you have missed and to exchange notes. If you have questions following that, please come to the teaching team's office hours. It is important not to fall behind in this course and missing class will put you seriously behind.

You are expected to come to class on time prepared to learn and attend until the end of the hour. If you need to leave early, please inform me ahead of time and sit near the exit as to minimally disrupt other students.

I will not take attendance but I will periodically give ungraded, in-class quizzes to evaluate to how well students are learning the material and to encourage attendance. While these are not graded, they will be worth extra credit points at the end of the semester based on how many you were present for.

In class we will work through examples. Students are expected to not only watch the example, but to work through it along with the instructor. For this reason, students need to bring a calculator to class, preferably the one you will be using on the exams.

Classroom etiquette

Please treat each other and each other's ideas respectfully in the classroom and in the discussion forums. Keep in mind that the University of Montana forbids discrimination on the basis of ethnicity, race, religion, sex, age, marital status, sexual orientation, or disability. If you violate this policy I will ask you to leave.

Additionally, please respect the classroom as a place to learn. I ask you to respect the classroom environment by not texting or having private discussions. This behavior is distracting and disruptive to other students and the instructor.

Disability modifications

The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and [Disability Services for Students](#). If you think you may have a disability adversely affecting your academic performance, and you have not already registered with Disability Services, please contact Disability Services in Lommasson Center 154 or call 406-243-2243. I will work with you and Disability Services to provide an appropriate modification.

Email policy

I will check and respond to emails during business hours for one hour daily Monday-Friday, and during my office hours. When I answer questions that students have emailed me during class, I

consider the question answered. Do not email me after 10 pm the night before an exam. I will not respond.

I encourage students to ask questions in class, attend office hours, or make an appointment if you need assistance. Statistical calculations can be difficult to discuss over email.

Grading policy

There will be five exams and four problem sets that will comprise the total points for the semester (See the reading and exam schedule at the end of the syllabus). Each of the exams is worth 50 points. Problem sets 1-3 are worth 10 points each. Problem set 4 is worth 20 points. Final grades will be determined based on your average score out of the total points possible. At any point, you can calculate your grade by adding the number of points to date, dividing by the total number of points possible to date, and obtaining your percentage grade to date. Good engagement and attendance can raise a borderline grade.

A: 90-100%

B: 80-89%

C: 70-79%

D: 60-69%

F: 59% or below

Name and pronouns

This course affirms people of all gender expressions and gender identities. If you go by a different name than what is on the class roster, let me know. I will respect your name and your pronouns.

Writing assistance

The Writing Center is a resource available to all students to assist with all steps of the writing process. Set up an appointment or learn more at [The Writing Center's website](#).

Class schedule

This schedule is tentative. While due dates are unlikely to change, content may change as we see that we need to spend more or less time on a particular topic. I will do my best to ensure that exam dates do not change, but the material covered on the exams may change. It is your responsibility to keep up with the schedule by attending class regularly, checking the Moodle page and your student email frequently, and doing the readings and assignments. The chapters listed below are from our textbook.

The reading listed is what you need to have read PRIOR to the class meeting time.

Class Schedule

	Monday	Wednesday	Friday
Week of Jan 22	The syllabus Introduction to Statistics (For a basic math review read xxv-xxxi)	Chapter 1 and 2 Basic Descriptive Statistics	Chapter 2 Basic Descriptive Statistics
Jan 29	Chapter 3 Measures of Central Tendency	Chapter 3 Measures of Central Tendency	Chapter 4 Measures of Dispersion
Feb 5	Chapter 4 Measures of Dispersion	Chapter 5 The Normal Curve	Exam 1 On chapters 1-4, and corresponding lectures
Feb 12	Problem Set 1 Due Chapter 5 The Normal Curve	Chapter 5 The Normal Curve	Chapter 6 Four Fundamental Concepts
Feb 19	No class President's Day	Chapter 6 Four Fundamental Concepts	Chapter 7 Estimation
Feb 26	Chapter 7 Estimation	Chapter 7 Estimation	Exam 2 On chapters 5-7, and corresponding lectures
March 5	Problem Set 2 Due Chapter 8 Hypothesis Testing I	Chapter 8 Hypothesis Testing I	Chapter 9 Hypothesis Testing II
March 12	Chapter 9 Hypothesis Testing II	Chapter 9 Hypothesis Testing II	Chapter 10 Analysis of Variance
March 19	Chapter 10 Analysis of Variance	Chapter 10 Analysis of Variance	Exam 3 On chapters 8-10, and corresponding lectures
March 26	No class Spring Break		

April 2	Problem Set 3 Due Chapter 10 Analysis of Variance	Chapter 11 Chi-Square	Chapter 11 Chi-Square
April 9	Chapter 11 Chi-Square	Chapter 12 Nominal Level Association	Chapter 12 Nominal Level Association
April 16	Chapter 13 Ordinal Level Association	Chapter 13 Ordinal Level Association	Exam 4 On chapters 10-12, corresponding lectures
April 23	Chapter 14 Correlation and Regression	Chapter 14 Correlation and Regression	Chapter 14 Correlation and Regression
April 30	Chapter 16 Correlation and Regression	Chapter 16 Correlation and Regression	Problem Set 4 Due Chapter 16 Correlation and Regression
May 7 Finals week	Final Exam 10:10-12:10 on Wednesday, May 9 on chapters 12 and 13, and corresponding lectures		